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The Effect of (Know, Want, Learn) KWL Strategy chart in Enhancing Pupil's Reading Comprehension Skills

**A Case Study of Second Year English Language Students at Mustapha
Ben Boulaid of Batna**

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Declaration

I, Omaila DERNOUNI, do hereby declare that the work presented in this dissertation is solely my effort, and has not been submitted for any academic institution or university for any degree before. This inquiry was conducted and completed at Mohamed Kheider University of Biskra, Algeria.

Certified.

Mrs. Omaila DERNOUNI

Dedications

I dedicate this modest work to my precious treasure in life, my dearest parents who always valued my education and supported me to succeed:

To my father Mohibedine DERNOUNI & my mother Samira ALLAOUI

To my only brother:

Mohammed Akram

To my sisters:

Hanane, Sana, Merwa, Safa, and Amani

To all my nieces and nephews:

Areej, Ilyas, Mayar, loujain, Alae, Celina and Taha

To my childhood Friends whom I grew up with:

Nour El Houda, Ichrak and Roumaissa

To my two best friends and classmates:

Rania KABOUL & Loubna HACHANA

To everyone who helped me to accomplish this work

Thank you all

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Abstract

The mastery of reading comprehension skills is deemed to be the foundation for successful language learning. However, throughout the learning process, the majority of EFL students face major difficulties when it comes to comprehending reading materials. Hence, the present study aims at investigating the role of the KWL (know, want, learn,) strategy in facilitating the process of reading comprehension. Moreover, it seeks to explore teachers' perceptions and attitudes towards the use of KWL as a teaching strategy to improve EFL students' reading comprehension skills. In this study, it is hypothesized that the use of KWL (know, want, learn) by EFL students may help them improve their reading comprehension skills. To achieve the intended aims and test the hypotheses, a quantitative research approach was adopted using a case study. The population of this study was second-year high school students at Mustapha Ben Boulaid high school of Batna, Algeria, which consisted of 125 students. The sample of this study was only one group (N=29). To gather data, a semi-structured questionnaire for teachers was used as data collection method to gather data about the teachers' perspectives about the different reading comprehension difficulties that student's face in the reading class and investigate teacher's attitude towards the implementation of new teaching methods such as the KWL strategy in their classroom. Additionally, a quasi-experiment was conducted in one group (pre-test/post-test) to gather data about the effectiveness of the KWL strategy chart as a teaching tool. The findings gained from this study were analyzed quantitatively and qualitatively, they revealed the main reasons that make EFL learners' reading comprehension skills weak. Then, it proved that the KWL strategy may enhance learners'

reading comprehension skills. These findings suggest that KWL can improve learners' reading comprehension through activating prior knowledge. Therefore, the alternative hypothesis of the study was confirmed, and the null hypothesis was rejected. As a result of that, the KWL strategy is recommended to be used as a teaching tool in the reading session.

Keywords: KWL strategy, Reading comprehension, EFL learners

List of abbreviations and acronyms

KWL: know, want, learned

DF: Degree of Freedom

F: F distribution, Fisher's ratio

H0: Null Hypothesis

H1: Alternative Hypothesis

N: Number of Participants

p. value: probability value

SD: Standard Deviation

Sig: Statistical Significance

SPSS: Statistical Package for the Social Sciences

t: The sample value of the t-test statistics

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GENERAL INTRODUCTION

Introduction

English is the language of the globalized world and international communication. Therefore, learning English allows you to broaden your knowledge in many fields because it is the most commonly used language in the world. English as any other language depends on reading comprehension as one of the fundamental components of successful language learning. Therefore, many studies involving students in primary, secondary, and tertiary levels prove that there is a great connection between low reading achievement and low school performance. In light of this, this study attempts to uncover the reasons behind the lack of reading comprehension efficiency among students and introduces a new method to enhance their reading comprehension skills.

1. Background of the study

Students face a lot of difficulties in the process of learning English and one of those difficulties is reading comprehension. Reading is the key to successful and productive English learning at any level of education. It allows students to absorb as much knowledge as possible independently to seek advancement in this competitive era.

One of the problems that students face in reading comprehension is constructing meaning as they interact with reading materials. Comprehension is only possible if the reader activates prior knowledge and past experiences to actively respond to the reading material. Therefore, Teachers use a lot of teaching strategies to achieve that.

Visual graphic organizers are one of the useful tools that teachers can use with students to make sense of texts. Visual graphic organizers illustrate concepts and relationships

between concepts in a text. Examples of graphic organizers are concept maps, webs, charts, and many others. One of the graphic organizers that are believed to be useful for reading comprehension is the KWL strategy chart.

The KWL strategy is a graphic organizer that is used to brainstorm and organize prior information about a topic and new information, all in one chart divided into three columns that are going to be filled by the students. The K column refers to what the students already know about the given text or topic, The W column is for what they Want to know, and the L column is for what they have learned from the text, where the first two steps (the columns) are filled before reading and the last column is filled after the reading process. This strategy not only helps students comprehend reading materials but also involve them actively in the reading activity.

There is a good amount of research that has been conducted to investigate the effects of the KWL chart as a strategy to improve student's reading comprehension. Therefore, this research will provide good evidence to support this research.

2. Statement of the problem

Reading comprehension is a very important part of the English language learning process. In this process, students are supposed to read, understand, and process the reading material. However, students have a major difficulty in not only understanding the meaning of words but also applying and recognizing background knowledge. Therefore; different effective learning strategies are used to overcome this problem. The KWL strategy is a proposed tool that is used to organize learner's backgrounds and new information, to achieve reading comprehension. Therefore, this study is conducted to apply the KWL strategy chart in

the reading classroom, aiming to positively impact the learners' reading comprehension skills. The validity and workability of the KWL in such settings are going to be explored, tested, and confirmed.

3. Research Questions:

This research seeks to answer the following questions:

RQ1: What are the difficulties that EFL learners face in reading comprehension?

RQ2: How can teachers use the KWL chart to teach reading to improve reading comprehension?

RQ3: To what extent can the KWL chart help in enhancing EFL learners reading comprehension skills

4. Research Hypothesis:

H0: The use of the KWL strategy chart in a reading class will not have any effect on student's reading comprehension.

H1: If the KWL strategy chart is used in a reading class, students will have better reading comprehension.

5. Research Aims:

5.1. General aim:

The major aim of the present study is to investigate the effect of using the KWL chart as a strategy to enhance student's reading comprehension skills.

5.2. Specific aims:

The specific aims are to:

- Highlight the difficulties that students face during the reading process.
- Draw the teacher's attention and awareness on the KWL chart as a strategy to improve student's reading comprehension skills.

6. Significance of the study:

Reading comprehension skills are very essential for young learners and should not be neglected. Therefore; the KWL strategy chart is expected to be beneficial in enhancing students' reading comprehension skills. The present study is expected to be beneficial for English language high school students. It is also expected to help them get actively involved in the classroom and we hope that this study will be a significant endeavor in creating a good learning environment.

7. Research methodology

Since the present study aimed mainly to investigate the use of the KWL strategy in enhancing students' reading comprehension skills, a quantitative approach was adopted, which seems to be the most appropriate method for her research and subject nature. For the sake of answering the research questions and testing the hypothesis, a quantitative approach is used.

7.1. Research design

To carry this research, the researcher opted to used another quantitative design, which is the quasi-experiment due to the nature of the present study. A quasi-experiment is applied to a one group pre-test post-test. This research is based on a case study and a quasi-experiment is applied for one group before and after being exposed to the KWL strategy.

7.2. Data collection tools:

To collect the required data for this study, a semi-structured questionnaire will be administrated to high school English language teachers to collect data about student's reading comprehension difficulties and the different types of strategies that teachers use in the reading class and find out teachers' attitude towards the use of the KWL strategy to enhance students' reading comprehension skills. In addition to the teacher's questionnaire, a pre-test and post-test are administrated to second-year English language high school students to test the first hypothesis about the effect of the KWL chart in enhancing student's reading comprehension.

7.3. Research population and sample:

Since our study is concerned with the impact of the KWL strategy in enhancing high school students' reading comprehension skills, The population of this study is a second-year high school students at Mustapha ben Boulaid in Batna which consisted of five classes (125 students). Our sample includes only 29 students which are one group.

7.4. Data analysis procedures:

The data collected in this research analyzed through a deductive based analytical procedure relying on the findings of the fieldwork. Data collected from both pretest and post-test and the questionnaire will be analyzed using the SPSS software package.

8. Structure of the Dissertation

The present study consisted mainly of two main parts, which are the Theoretical Part and Practical Part. The dissertation is divided into two chapters. The first chapter provided a literature review about the importance of reading and reading comprehension skills; whereas,

the second chapter is devoted to the fieldwork and the analysis of the collected data.

The first chapter provides an overview of Reading comprehension, including its definition and importance. Moreover, the chapter highlights the differences between reading in L1 and L2. The chapter also presents and explains types of reading models, and the strategies for teaching reading comprehension. It also spots light on the major reading comprehension difficulties that EFL learners may encounter and how they can be assessed.

The first chapter also includes a general overview and definition of visual graphic organizers and their advantages. Additionally, it presented the main types of graphic organizers and specific types of graphic organizers that are used in reading comprehension. The chapter presents the KWL strategy, its definition, importance, and procedures of using it and the possible problems of using it.

The second chapter is devoted to the fieldwork and the analysis of the data collected through the test, and teachers' questionnaire. First, it reviews a theoretical background of research methodology, explains the sampling, instruments, research design, and gives a detailed explanation of the quasi-experimental procedures. The chapter also presents the findings and discussion of results. Finally, it suggests some recommendations for teachers, students, and future researchers.

CHAPTER ONE:
READING COMPREHENSION
SKILLS
and
THE KWL STRATEGY

I. Reading comprehension skills

1.1. Definition of reading

Reading is very important yet very difficult skill. It allows learners to extend their general knowledge and vocabulary knowledge as well. Reading is not only about being fluent when being exposed to written materials but also being able to decode and extract meaning from a written text. Koda (2007) defines reading as a process of constructing meaning from visually encoded information. She further explains that reading requires building links between a language and its writing system.

Additionally, reading has been defined by Odwan (2012) states that ‘‘reading is a complex cognitive process and mastery of all aspects of reading is crucial for academic success and achievement’’ (as cited in Elisa, 2017). Reading is an active process that relies on both the ability of an author to express meaning through words, as well as your ability to extract meaning from them. To read effectively, you must continuously link what you already know about the material with the words that the author has written. Grabe, 2009 presented another definition in which suggests a list of processes for reading classified as follows:

1. A rapid process
2. An efficient process
3. A comprehending process
4. An interactive process
5. A strategic process

6. A flexible process
7. A purposeful process
8. An evaluative process
9. A learning process
10. A linguistic process

1.2.Purpose of reading

Like any other language skill, reading has many purposes; therefore, Grabe and Stoller (2002) in their book “Teaching and Researching Reading”, state that when we read, we go through an unconscious rapid process of making decisions for the purpose of reading, and they further explain that there are various of purposes of reading:

1.2.1. Reading to search for simple information and reading to skim

Additionally, according to Grabe and Stoller (2002) they explain that ‘in reading to search, we typically scan the text for a specific word, or a specific piece of information, or a few representative phrases’p.7. An example of this purpose of reading is looking for key Information when reading to determine if we are on the right page. Similarly, to reading to search, reading to skim is to use techniques to locate useful information in text and then using comprehension skills in order to get a general idea about the text.

1.2.2. Reading to learn from texts

It usually takes place in academic and professional settings where learners are expected to grasp a large amount of information from the text and it requires the ability to remember main and supporting ideas of the text, build an organized frame of the text, as well

as link the text to the reader's prior knowledge. Reading to learn is considered to be a slower process of reading compared to the other processes because it requires to remember information. (Grabe and Stoller, 2002)

1.2.3. Reading to integrate information, write and critique texts

This process, according to Grabe and Stoller “ requires critical evaluation of the information being read so that the reader can decide what information to integrate and how to integrate it for the reader’s goal and” (2002, p. 7)

1.2.4. Reading for general comprehension

Reading for general comprehension is the basic purpose of reading yet the most difficult one. It requires rapid processing of the text and the ability to form general meaning from the main ideas of the text in a short time. This process is quicker and easier and almost automatic for a fluent native speaker and more complex and slower for second language learners. .(Grabe and Stoller, 2002)

1.3.Process of reading

Alderson (2000) says that “the process is likely to be dynamic, variable, and different for the same reader on the same text at a different time or with a different purpose in reading”. The American educator Gray (1960) has analyzed the process of reading in one's language and found that there are four major aspects of the reading process that represent “a psychologically coherent unit”: word perception, comprehension, reaction to what is read, and fusion of new ideas and old. (As cited in Burchiellaro,2013). He explains that the reading process starts with word perception of the written material and then making an association between written

materials and pronunciation and forming ideas based on what you read that leads to understanding and comprehending the entire material that has been read. After forming meaning from the written text, the reader starts reacting consciously with the ideas and links it with other things that he read and become able to form new ideas and information; in other words, the reader becomes able to associate old knowledge with the material he is reading and form new information from that. (as cited in Burchiellaro, 2013)

1.4.Product of reading

“Comprehension, meaning, understanding and knowledge are all synonyms for the final result of the reading process, its product, which varies as well depending on what happens between text and reader”(Burchiellaro, 2013.p.13); in other words, the product of reading is a result of the process of reading.

Alderson (2000) states that readers have the potentials to transform and interpret Printed, written materials into certain information or knowledge and it is the reader’s task to give that potentiality a real and valid interpretation. This is believed to be the reason behind the variety of interpretations of meaning between readers and the change of attitude towards the same text by different readers. On the other hand, Gray (1961), believes that

“the product reading happens at different levels of understanding; the first reading the lines that correspond to the literal meaning of the text, the second reading between the lines to inferred meanings, the third is beyond the lines that refer to the reader's critical evaluation of the text” (As cited in Burchiellaro, 2016.p13).

Therefore, multiple products can result from the reading starting from the easiest levels toward the most difficult ones.

1.5. Reading models

When teaching reading teachers tend to use one of the several types of reading models to achieve reading comprehension. According to Khaokaew, (2012) reading models made a great influence on the way reading is taught as well as our overall understanding of reading. Although there are many models of reading, reading researchers tend to classify them into three major categories: the bottom-up, the top-down, the interactive, and the new literacy models.

1.5.1. The bottom-up model

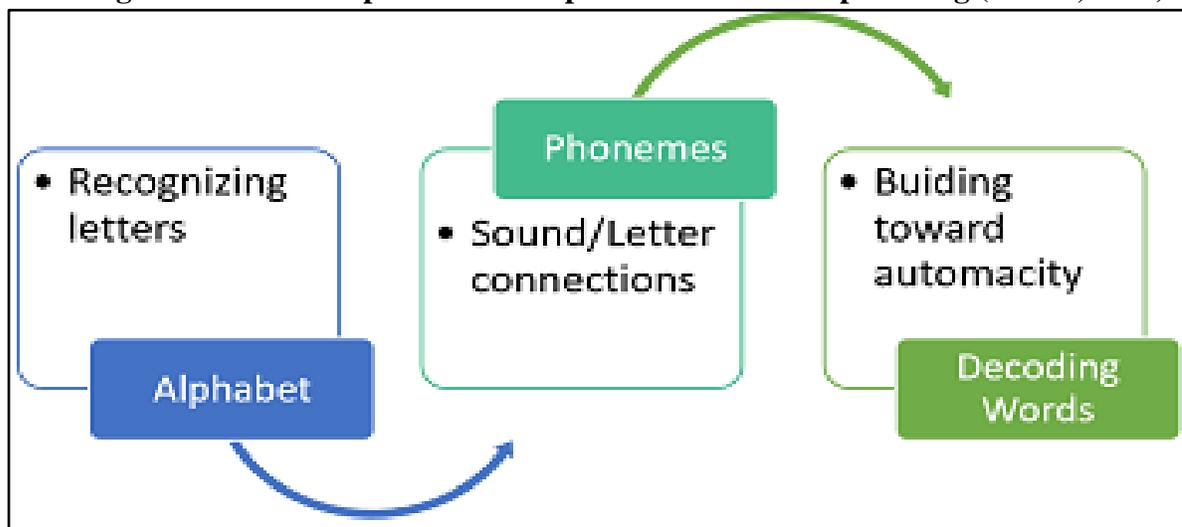
The bottom-up model of reading is a hierarchical process that includes steps that readers do unconsciously starting from the recognition and perception smallest units of the text i.e; words and then clauses, sentences up until the perception of the whole text. Gough claims that when reading a text the character register will be transposed into abstract phonemic representations. These will, in turn, be used to search the mental lexicon. He states that word recognition takes place prior to comprehension. (As cited in Bakke, 2010). According to Barnet, 1989; Carrell & Eisterhold, 1983; Eskey, 1986; Carnham, 1985; Iran-Nejad, 1987 among many others,

During bottom-up processing, the reader takes a step by step order to process the text and the processing of each component takes place independently; therefore, it is not feasible to make use of higher-ordered reading skills such as

making inferences, consequently, the reader's background knowledge plays virtually a very limited role in driving and interpreting the meaning of a text. (As cited in Davoudi & Moghadam, 2015, p. 174)

According to Grabe (2009), bottom-up models traditionally depict reading as a mechanical process in which the reader decodes the ongoing text letter-by-letter, word-by-word, and sentence-by-sentence. This mechanical processing translates the information in the text piece-by-piece with little interference from the reader's background knowledge.

The bottom-up model was criticized by Eskey (1973), who argues that it provides an insufficient model of reading since it underestimates the reader's role and ability to use his/her knowledge of the language and of how it works to anticipate what might follow in the text being read. Similarly, Rumelhart (1977) criticized the bottom-up model on the basis that it did not take into consideration the various other factors relating to reading comprehension. For example, the reader's background knowledge appears to play no role in the bottom-up process and the role of the reader as an active participant is not taken into account. Rumelhart states that the bottom-up model is a linear model in which the process of comprehension goes only in one direction. This linear procedure in the reading process does not allow for interaction between the lower and higher-level stages of information processing.

Figure 1 Relationship between components of bottom-up reading (Tustin, 2003)

1.5.2. Top-down Model

The Top-down model of reading, also known as the reader-based model is a process in which the readers draw use their intelligence and experience to understand a text. i.e; the reader’s background knowledge of the content of the text plays an important role in the comprehension and processing of the text. Goodman (1967) was a proponent of the top-down model which was developed within the structure of psycholinguistic theories, he explains that “The top-down model focuses on a higher level of reading — constructing the meaning of a text through a combination of reading strategies such as predicting, making inferences and relating information in the text to background knowledge — and pays less attention to the decoding of letters and words”. (as cited in khoakaew,2012, p.23). Therefore, the top-down model focuses on the general and prior knowledge to comprehend the content of the text. In other words, the top-down model of reading takes into consideration the important role played by the reader in using his intelligence and prior knowledge to understand new information in

the reading process. “While the bottom-up model starts with the smallest units in sentences, the top-down model is based on an opposite concept. The reader relies on syntactic and semantic knowledge that was known prior to the reading”. (As cited in Khaokew, 2012, p.24)

1.5.3. The interactive model

The interactive model also called the balanced model is a model proposed by Rumelhart (1977, 1980) and further developed by Kintsch (2004). The interactive model combines both the bottom up and the top-down models and is a response to the criticism of the previous models. Goodman explains that “ An interactive model is one which uses print as input and has meaning as output. But the reader provides input, too, and the reader, interacting with the text, is selective in using just as little of the cues from the text as necessary to construct meaning” (as cited in Brown, 1998)

Additionally, Rumelhart (1977) withholds that “in the interactive model of reading comprehension, the meaning is not bound to the text alone; rather, it is the outcome of co-construction of the information within the text and the readers’ interpretation” (as cited in Moghdam & Davoudi, 2015, p.174). According to Carrell & Eisterhold (1983) readers process reading by:

- 1- Interpreting the linguistic items in the text (bottom-up processing)
- 2- Relating this information to what is already known about the world (top-down processing) (as cited in Uzuncakmak, 2005)

Brown (1998) states that the interactive theory of reading focuses on both the cognitive processing of the smallest units such as letters and words, word meaning, syntax, sentence-level meaning assignment and linking of sentences at the paragraph level, while also focusing

on the reader's background knowledge and the important role it has. Brown explains that a great example is when a reader is exposed to written material or paragraph, he may use context to assign meaning to a previously encountered unknown word. Thus, according to interactive reading theories, "language is simultaneously processed at many different levels".

To sum up, the interactive model of reading provides a combination of the previous models as well as an improvement of their weaknesses because it includes the role of the text, the reader, and the interaction of the two.

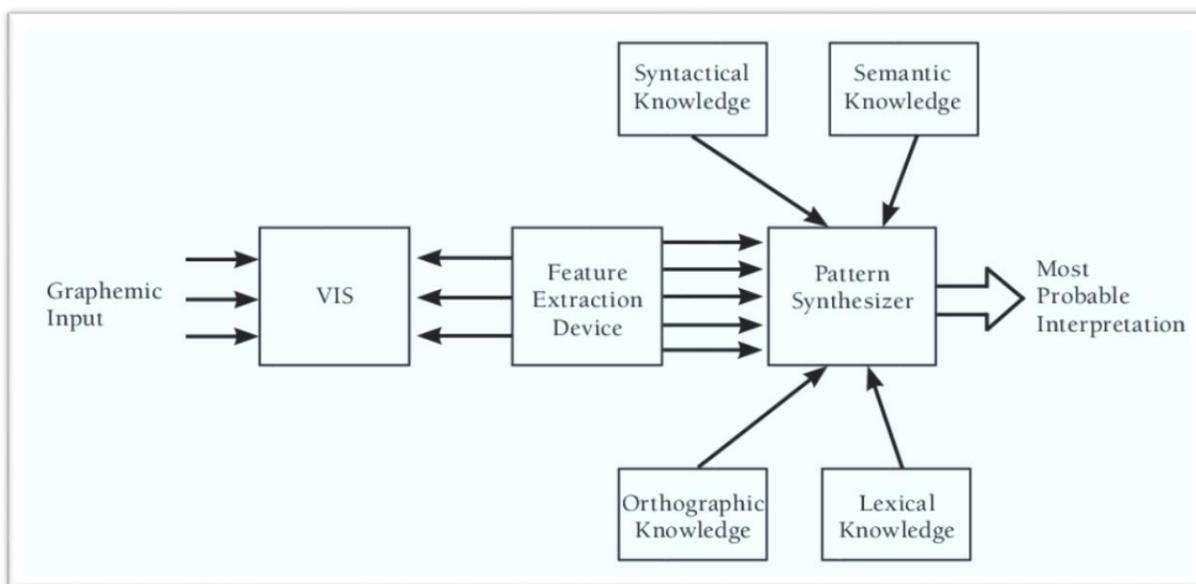


Figure 2 Interactive model of reading (Rumelhart, 1977)

The figure illustrates the assumption that Graphemic information enters the system and is registered in a visual information store (VIS). A feature extraction device is then assumed to operate on this information, extracting the critical features from the VIS. These features serve as the sensory input to a pattern synthesizer. In addition to this sensory information, the pattern synthesizer has available nonsensory information about the orthographic structure of the language (including information about the probability of various strings of characters),

information about lexical items in the language, information about the syntactic possibilities (and probabilities), information about the semantics of the language, and information about the current contextual situation (pragmatic information). The pattern synthesizer, then, uses all of this information to produce a “most probable interpretation” of the Graphemic input. (Rumelhart, 1977) .

1.6. Reading comprehension

1.6.1. Definition of reading comprehension

reading comprehension is a complex cognitive process of extracting meaning and information through the interaction with written language. Pressley,(2006) defines reading comprehension as “reading comprehension is about getting the meaning out the text” (as cited in Mohammedi,2018.p.57). The goal, therefore, is to gain an overall understanding of what is described in the text rather than to obtain meaning from isolated words or sentences. Meniado (2016) and Rumelhart (1981) explain that “Reading comprehension is a complex process that involves components, processes, and factors with the aim of finding better ways of improving it among learners. He continued that reading comprehension is an interactive process of finding meanings from a text (as cited in Gilakjani& Sabouri,2016). According to Snow “Comprehension entails three elements:

- The reader who is doing the comprehending
- The text that is to be comprehended
- The activity in which comprehension is a part.” P.180

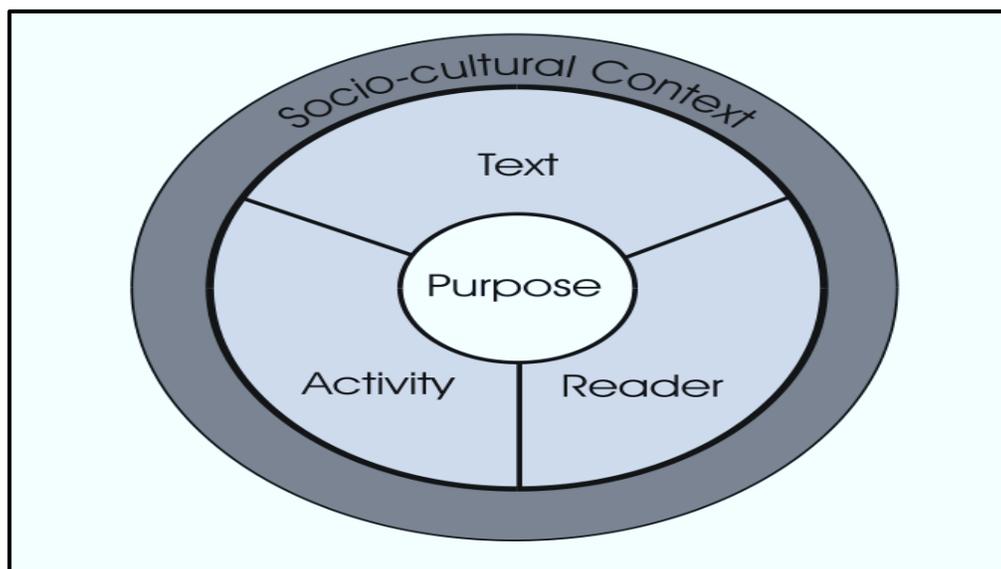


Figure 3 Variables that affect reading performance (snow, 2002)

There are various factors and elements that affect learner's reading comprehension and make it different from one reader to another. Koda (2007) explains that there are 'various variables that impact learners' reading comprehension. She further explained that Some of these variables are vocabulary knowledge, prior knowledge, metacognitive information, and reading strategies. In other words, reading comprehension can increase or decrease based on the existence and correct use of these factors. Trehearne and Doctorow (2005) expressed that some other factors affect learners' reading comprehension, these factors include learners' reading attitudes, useful teaching on comprehension methods, versatility, text form, and being aware of various reading comprehension strategies. Overall reading comprehension needs different reading skills such as word recognition, fluency, lexical knowledge, and pre-existing knowledge so that the reader gets information from the text.

1.7.Strategies of reading comprehension

Baker and Brown (1984) defined reading strategies as "purposeful and cognitive actions that learners make when they read to assist them in making and keeping meaning". According to Pressley (2006) and Trabasso & Bouchard (2002), reading strategies are conscious behaviors that readers use before, during, and after the reading process to get extract meaning and information from the text. Anderson (1999) defined reading strategies as “the mental tasks that readers apply to make meaning from the text”(as cited in Gilakjani& Sabouri,2016.p.181). Scott, Paris, Barbara, Wasik, Julianne, and Turner (2016) state that reading Strategies allow readers to elaborate, organize, and evaluate information constructed from the text.

Types of comprehension strategies were classified into six major categories by Suparman (2001) :

1. Prediction, guessing, and inference
2. Skimming, skipping, and topic priority
3. Repeating and note-taking
4. Translation, coinage, paraphrase, and alternative interpretation
5. Language analysis
6. Dictionary consultation, help-seeking, and self-asking. (as cited in **Elisa,2017, pp20-21**)

1.8. Reading Skills

Hudson defines skills as automatized strategies and he groups these into four categories, namely word-attack skills, comprehension skills, fluency skills, and critical reading skills. (as cited in Bakke,2015)

1.8.1. Word-attack Skills

It is also referred to as ‘decoding skills’ and according to Hudson (2007) are “skills that are needed to transfer the orthographic symbols into language” P.80 .These skills include the ability to recognize different aspects of the text like syllables, word boundaries, upper and lower case letters, etc.

1.8.2. Comprehension Skills

Hudson defines comprehension skills as skills where the reader uses his prior and background knowledge to understand the reading material; in other words, readers use what they already know to comprehend new information. This skill according to Hudson can be “grammatical competence, knowledge of how the language is built up, apply metacognitive knowledge, etc”. (2007,p.80)

1.8.3. Fluency Skills

Hudson (2007) explains that fluency skills mean the ability to read larger sequences of a text without being “interrupted”. These interruptions happen because the reader has to spell difficult words or because he does not understand certain words or parts of the text and read it over again. These interruptions lead to slow reading comprehension. ; in other words, when readers are distracted by the lack of vocabulary knowledge the whole comprehension process is disturbed. He further explains that fluency skills are the ability to recognize words and letter

combinations fast. In addition to that fluent readers according to Hudson have larger vocabulary knowledge.

1.8.4. Critical Reading Skills

Critical reading skills is meant the ability to “analyze, synthesize and evaluate what is read” (Hudson, 2007, p. 80). These skills include “recognizing arguments, the ability to discuss pro's and con's, seeing the cause-and-effect, etc’”. (Hudson, 2007, p. 80).

1.9. Critical components of reading comprehension

To be a fluent reader, readers must take into consideration the five components of reading comprehension that are crucial and important to shape a skilled reader. These components include phonics, phonemic awareness, vocabulary, fluency, and reading comprehension.

1.9.1. Phonics

Phonics is making a connection between the sound and symbols. According to Rasinski et al (2010) “Phonics refers to the relationship between sound and spelling patterns which a reader may use to decode words” (as cited in Chisamba,2014, p.15). Pressly (2006) explains that “phonics instruction focuses on the sounds produced by both vowels and consonants and blending of these sounds by also paying attention to root words”(as cited in Chisamba,2014, p. 15) which means that without phonics, words are simply a collection of random letters on a page.

1.9.2. Phonemic awareness

Phonemic awareness is also a fundamental component of reading comprehension in ensuring. The phonemic awareness is the ability to hear and manipulate the sounds in spoken words and the understanding that spoken words and syllables are made up of sequences of speech sounds; in other words, phonemic awareness is built by learning about sounds (phonemes), syllables, and words. Moreover, Beech (1989) states that "phonemic awareness is the ability to recognize the individual phonemes in a word". He added that there is a strong correlation between phonemic awareness and reading problems and that it is an important skill that needs to be learned in early stages to become a skilled reader. (A cited in Mohammedi, 2018)

1.9.3. Vocabulary

Vocabulary is the key to reading comprehension. Readers cannot understand what they are reading without knowing what most of the words mean. Therefore; vocabulary knowledge plays an important role in the reading comprehension process. Readers use the words they hear orally to make sense of the words they see in print. According to Perfetti et al (1996) "vocabulary knowledge when connected with domain knowledge links the reader to the text to make a richer inference based representation of the situation", (as cited in Chisamba,2014, p. 14), which means that when learners interact with different texts in different subject areas, they learn various new words from different domains. Since comprehension is the ultimate goal of reading, you cannot overestimate the importance of vocabulary knowledge.

1.9.4. Fluency

Fluency is the ability to read as well as we speak and to make sense of the text without having to stop and decode each word. According to Denton et al (2007), there is a strong correlation between reading fluency and reading comprehension. Fluency allows readers to extend the gap between recognizing a word and understanding its meaning. Fluency occurs when a reader develops their phonemic awareness, phonics skills, and vocabulary at the early stages of learning how to read. (as cited in Mohammedi, 2018)

1.9.5. Reading comprehension

Comprehension is the complex cognitive process readers use to understand what they have read. According to Chisamba (2014, p.17) “to comprehend means to extract and construct meaning through interactions and involvement with the text”. Skilled readers use various strategies when interacting with a text such as making predictions about the text and using prior knowledge and link it to the text or visualizing the events and characters to achieve reading comprehension . "To read with comprehension, skilled readers must be able to read with some proficiency and then receive explicit instruction in reading comprehension strategies" (Tierney, 1982, p. 299).

1.10. Reading in L2

Reading is one of the most complicated skills for foreign language learners because it involves different reading strategies that readers have already shaped in their first language acquisition. Even though both first and second language reading involves the reader, the text and the interaction between the reader and the text. However, the cognitive process in L1 and

L2 reading differ greatly. Reading in L1 is believed to be a great influence in the process of developing L2 reading skills.

1.10.1. The difference between L1 and L2 reading

Learning how to read in your mother tongue is very different from learning how to read in a second language and that is due to many factors. According to (Hudson, 2007) ‘‘ first and second language readers differ in some important ways:

- Most second-language readers already know how to read in their first language. This skill can help or interfere with learning to read in a second language.
- Reading in first languages usually begins when the pupil already knows how to speak the language. Second language readers often begin reading without knowing much about either the grammar or the vocabulary.
- There is a great cognitive difference between a child that learns to read in his first language and an adult that learns to read a second language and an adult that learns to read a second language (Hudson, 2007, p. 60).

These three aspects are illustrated in a model that Bernhardt has developed. This model illustrates the interaction between L1 and L2 in learning a new language Her compensatory model is three-dimensional and demonstrates that knowledge is not additive, but rather ‘‘operates synchronically, interactively and synergistically.’’ (Bernhardt, 2005,p. 140).

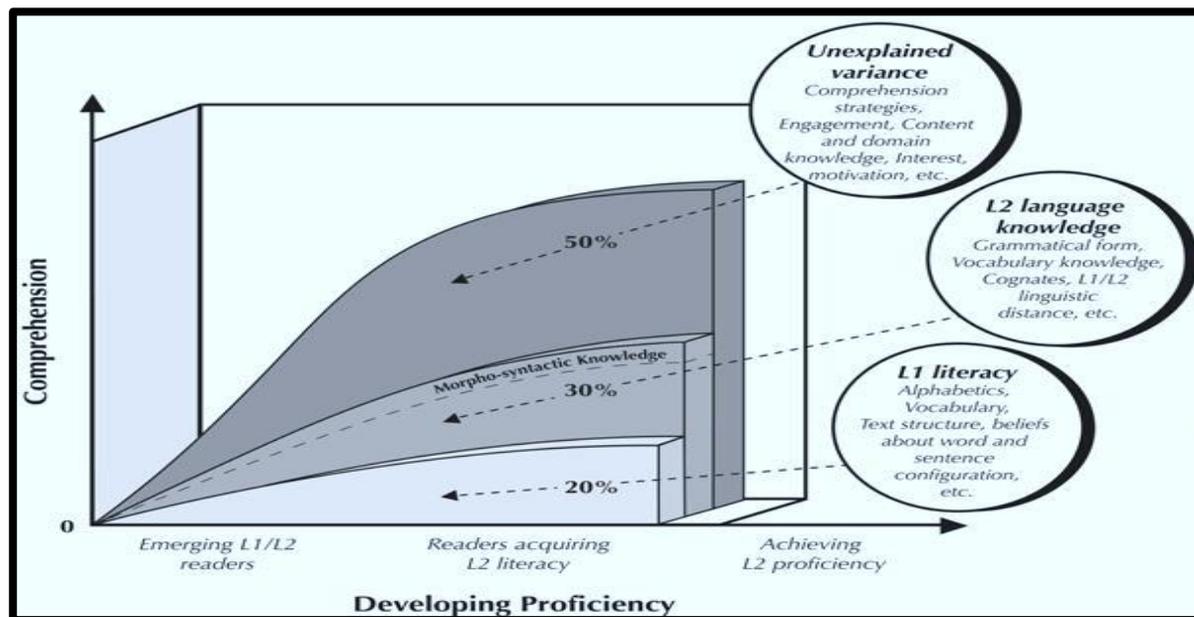


Figure 4 A compensatory model of second language reading (Bernhardt,2005)

Bernhart explains that “A compensatory model tries to model how knowledge sources assist or take over for other knowledge sources that are inadequate or nonexistent”(2005,p. 140). She further explains that in compensatory processing readers can use their L1 literacy and L2 language knowledge interactively and make up for deficiencies in one or the other by leaning on other skills. She states that “The model is three dimensional in nature and captures the current knowledge base regarding literacy knowledge, language knowledge with a particular emphasis on vocabulary, and dimensions under investigation, but not yet explained.”(Bernhart, 2005, p. 140). It also clearly illustrates that there still are variances that are unaccounted for when it comes to comprehension and performance in second language reading.

Additionally, Grabe (2009,p. 130) in his book ‘Reading in a second language’ states that “there are many differences between L1 and L2 reading, and students engage in

reading in distinct ways depending on whether they are reading in their L1 or their L2". He categorizes the differences between L1 and L2 reading in three main aspects:

- Linguistic and processing differences
- Developmental and educational differences
- Sociocultural and institutional differences

He explains that the differences between L1 and L2 reading are more noticeable with beginner readers and non-skilled readers; however, it can be apparent with advanced readers.

To conclude, although the field of second language reading has plenty of differences with first language reading; however, the process of second language reading is greatly influenced by the acquired reading strategies of one's first language.

1.11. Principles in teaching reading comprehension

There are some principles behind the teaching of reading proposed by Harmer (2001) in his book 'How to Teach Reading' and They are:

Principle 1: Students should be encouraged to read more and taught to read extensively.

Principle 2: Students need to be engaged with what they are reading. Harmer

Considers that students can get more benefit from reading if they are engaged and genuinely

Interested in reading text. Therefore; teachers should do their best to ensure that learners learn how to be engaged with the topic they read in and outside the classroom. (Harmer, 2001)

Principle 3: Students should be encouraged to respond to the content of a reading

text, not just to the language. In this principle, the point is that students should have opportunities to respond to the message of the text and thus provoking the personal engagement of the students. Students must be given a chance to respond to the message of the text show their feelings about the topic. (Harmer, 2001)

Principle 4: Prediction is a major factor in reading. The fourth principle is about the students' expectations about the content of the reading material based on the clues such as the title the book cover or the headlines. The active process of reading is ready to begin when they can get the hints of the text so they can predict what's coming in the next or what will they learn from the text. (Harmer, 2001)

Principle 5: Match the task to the topic when using intensive reading texts.

After choosing the appropriate text for the students to read with the appropriate level for them, comes a crucial step which is that teachers must choose the appropriate tasks that match the text. Harmer explains that "The most useful and interesting text can be undermined by boring and inappropriate tasks; the most commonplace passage can be made exciting with imaginative and challenging activities" (2001, p. 102)

Principle 6: Good teachers exploit reading texts to the full. Harmer states that "Good teachers integrate the reading text into interesting lesson sequences, using the topic for discussion and further tasks, using the language for study and then activation and using a range of activities to bring the text to life". (Harmer, 2005, p. 102)

1.12. Reading Comprehension Problems

Many studies investigated reading comprehension difficulties among students. Students with learning disabilities experience poor comprehension due to their failure to read strategically and to spontaneously monitor their understanding while reading. Current literature concerned with reading comprehension suggests that students with learning disabilities can experience comprehension problems because of difficulties in using their background knowledge appropriately, vocabulary knowledge, lack of reading fluency, and limited Knowledge of common Text structures.

1.12.1. Inappropriately Use of Prior Knowledge

Prior knowledge is one of the crucial elements in enhancing reading comprehension skills. McNamara & Kintsch, 1996 explain that to comprehend a written passage better, readers need to make a connection between the new information and the prior information, and personal experiences they already have about the topic of the reading. Zhang & Shanshan state that “learners require background knowledge to develop global understanding and fill relative gaps within the write-up. In this situation, if the learners' background knowledge is inadequate and deficient, their readings will contradict the information within the writing” (as cited in, Al-Jarrah & Ismail, 2018, p. 34).

Students find great difficulty in activating their prior knowledge when exposed to a reading text. In the study of undergraduate psychology students at the University of Lyon, Blanc and Tapiero (2001) found that having more background knowledge about the topic of reading plays a significant role in helping readers to construct meaning and information from a text. His study found that readers who had more background knowledge were able to make a

more accurate connection between the new textual information and their previous experience when compared to readers with less background knowledge. Blanc and Tapiero (2001) concluded that background knowledge and demands of the task are very important elements in understanding and gaining the meaning of a text. Also, having background knowledge about the reading material facilitates comprehension by allowing students to make a prediction, set some expectations, make inferences about the reading (as cited in Anderson & Pearson, 1984).

Even though the lack of using prior knowledge appropriately prevents students from successfully comprehending a text, teachers can help them to develop and activate their prior knowledge through utilizing different pre-reading activities. To successfully help their students activate their background knowledge, teachers should be aware of topics that are more familiar to their students, as well as topics that the students have less prior knowledge about (Smith, 2004)

1.12.2. Lack of Vocabulary Knowledge

Lack of vocabulary knowledge is also a major reading problem for students. Qian (2002) explains that vocabulary knowledge plays an important role in understanding complex reading materials such as textbooks, particularly those containing technical expressions. This is because students with poor vocabulary knowledge find a major difficulty in understanding most of the words in the text; therefore, they would have a low comprehension.

Many studies have studied the relationship between vocabulary knowledge and reading comprehension and according to Baumann & Kameenui (1991); Paul & O'Rourke (1988); Stanovich (1986) the relationship between reading comprehension and vocabulary knowledge is strong and unequivocal (as cited in Gersten, Fuchs, Williams and baker, 2001).

Cunningham & Stanovich, 1998 state that "It is important to note that this relationship holds for readers at all skill levels. Even weak readers' vocabulary knowledge is strongly correlated with the amount of reading they do" (as cited in Gersten, Fuchs, Williams and baker, 2001).

Moreover, Qian (2002) pointed out that "having a larger vocabulary gives the learner a larger database from which to guess the meaning of the unknown words or behavior of newly learned words, having deeper vocabulary knowledge will very likely improve the results of the guessing work" (p. 518); in other words, learners who have achieved greater vocabulary knowledge will not have major issues with understanding new words that they face when reading. Graham and Bellert (2005) explained how students' knowledge of vocabulary impacts their understanding of written texts by providing the following example:

1. The apprehension of the semantic fields of morphological units is pivotal for deriving semantic content when reading. This seems to be consummately plausible, and most preceptors' ripostes to this attestation would predictably be, "Inexorably so!" (p. 256).
2. Knowledge of word meaning is important for reading comprehension. This seems to be quite logical, and most teachers' responses to this statement would be, "Of course!"(p. 256).

Even though these two passages report the exact message, they employ entirely different vocabulary words. A passage that is written with a lot of difficult academic terminology and vocabulary puts students in a very difficult situation where they have a high error rate in the reading because they failed to connect the passages to their prior knowledge.

Using unfamiliar vocabulary also negatively influences the students reading comprehension, creating disappointment and loss of motivation to read (Graham & Bellert, 2005).

1.12.3. Lack of Reading Fluency :

Lack of reading fluency is another problem that negatively impacts the reading comprehension of students with learning disabilities (Gersten, Fuchs, Williams, & Baker, 2001; Graham & Bellert, 2005). Fluency allows readers to rapidly process vocabulary units, such as letter and sounds correspondences into understandable vocabulary, automatically make a connection between words, quickly process information, and thinking about the passage while reading, which all leads to construct the meaning of what they are reading (LaBerge and Samuels, 1974).

Having the ability to read rapidly and smoothly without having to stop and spell words, assists readers with both decoding and word identification, which results in saving more cognitive capacity for construction meaning (Chard, Vaughn, & Tyler, 2002; Perfetti, 1985; Perfetti, 1977; Therrien, 2004). In contrast, having a slow word processing rate can distract readers' thinking during the reading process and disturb their working memory. In other words, instead of focusing on the content of the reading and how words are connected, slow reading of words and information restricts readers' attention, which prevents readers of processing information in their working memories for adequate time to gain meaning (Chard, Vaughn, & Tyler, 2002; Perfetti, 1985; Perfetti, 1977; Therrien, 2004). Thus, besides assisting students to rapidly and accurately read and process new information, reading fluency plays a critical role in facilitating their reading comprehension.

1.12.4. Limited Knowledge of Common Text Structures

Having limited knowledge about the common text structures is another difficulty that can negatively students' reading comprehension. Weaver & Kintsch, 1991 state that "Text structures are the way that an author organizes textual information to communicate a message to a reader" (as cited In Almutairi, 2018). Knowledge of text structures plays a major role in facilitating learning by helping students to link information in text and differentiate between important and less important ideas (Sáenz, & Fuchs, 2002). It also facilitates the learning of the textual materials by encouraging the students to ask relevant questions about the text while engaging in the reading process (Gersten, Fuchs, Williams, & Baker, 2001). Also, having the ability to recognize the different types of text structures contributes to improving the students' performance in reading (Englert & Hiebert, 1984)

1.13. Assessment of reading

One important aspect of the teaching of any foreign language is the assessment of students' progress. According to Richard and Schmidt (2002) " a systematic approach to collecting information and making inferences about the ability of a student or the quality or success of a teaching course based on various sources of evidence". (p. 35). "Reading assessments are meant to provide feedback on the skills, processes, and knowledge resources that represent reading abilities" (Grabe, 2009, p. 353) and they should not be confused with language tests, which are according to brown (2004) "prepared administrative procedures that occur at identifiable times in a curriculum when learners muster all their faculties to offer peak performance, knowing that their responses are being measured and evaluated" (as cited in Burchiellaro, 2013)

Tuner (1988) states that in scoring the students' reading comprehension, they are some aspects of measuring reading comprehension, they are:

1.13.1. Different Sound

While the students are asked to read the text, the teacher will assess them by hearing their pronunciation or the sound that the students may say. (as cited in Ningsih, 2017).

1.13.2. Paraphrase Recognition

Paraphrase recognition means that the students can develop the main idea by using their own words. The teacher will assess them by looking at the way they develop the main idea and also coherence between the main idea with supporting the idea. (as cited in Ningsih, 2017).

1.13.3. Information Transfer

The teachers assess the students reading comprehension not only through their pronunciation but also how they transfer the information to others (listener). (as cited in Ningsih, 2017).

1.13.4. Finding the Stated Information

This study focuses on literal comprehension, so the aspects to be concluded in the text are paraphrase recognition and finding the state's information. It means that the teacher does not assess students through their findings on the printed page. (as cited in Ningsih, 2017). It is difficult to assess accurately reading comprehension and vocabulary using brief measures and

procedures. Researchers still work on identifying effective and efficient practices to assess vocabulary and comprehension that are useful to teachers to diagnose specific difficulties for students and to monitor students' progress.

II. KWL STRATEGY

2. Graphic organizers

2.1. Definition of graphic organizers

We know from learning theory that the human mind naturally organizes and stores information. Our minds create structures to store newly acquired information and connect it to previous knowledge (Piaget, 1974). Graphic organizers are visualizations of these mental storage systems and serve to support students in remembering and connecting information (Vygotsky, 1962). Graphic organizers have been defined by many scholars. According to Bromley, Irwin & Modlo, (1999) "A graphic organizer is a visual representation of knowledge that structures information by arranging important aspects of a concept or topic into a pattern using labels" p.7

Additionally, Bishop (2013) defines graphic organizers as a visual representations of key content information designed to direct learners and upgrade their comprehension. (as cited in Tayib, 2015). Additionally, Bromley, Irwin & Modlo, (1999) state that graphic organizers present information in concise ways that highlight the organization and relationships of concepts. They can be used with any subject matter at any level .In other words, Graphic organizers are wonderful strategies to get students actively involved in their

learning. Because graphic organizers include both words and visual images and they are effective with a wide variety of learners.

Moreover, Cassidy (1991) states that numerous studies have found that graphic organizers to be effective for teaching and learning, and many support the effectiveness of graphic organizers for gifted children as well as students with special needs (as cited in Mcknight, 2010). Therefore; Textbook publishers have taken note of the research that supports the importance of graphic organizers for teaching and learning, and regularly feature them in textbooks. Due to the wide success of graphic organizers, these learning tools are used at all grade levels. They are also effective for adult learners. Community colleges and corporate entities use graphic organizers to present information in similar instructive contexts. (as cited in Mcknight, 2010)

2.2. The Advantages of Using Graphic Organizers in Teaching Reading

It has been stated by many scholars that graphic organizers have many benefits for learners' comprehension. According to Cleveland (2005), graphic organizers facilitate higher-level thinking skills. They assist learners to identify main ideas and details in their reading. They ameliorate the process for students to see patterns, such as to cause and effect, comparing and contrasting, and chronological order. He additionally believes that Graphic organizers can be a versatile tool in your classroom. Organizers provide an easy, straightforward way to visually present a wide range of material.

Additionally, Bromley, Irwin, and Modlo, (1999) state that Graphic organizers help you and your students focus on what is important because they highlight key concepts and vocabulary, and the relationships among them, thus providing the tools for critical and

creative thinking. Dunston, (1992) state that “Individual students who use graphic organizers in the classroom develop their ability to use them independently as study tools for note-taking, planning, presentation, and review” (as cited in Bromley, Irwin, and Modlo, 1999, p. 7)

Moreover, Cleveland, 2005 adds that by using graphic organizers, learners can understand content more clearly and can take clear, concise notes. Ultimately, learners find it easier to retain and apply what they’ve learned. He states that " Organizers also help learners master critical-thinking skills by asking them to recall, evaluate, synthesize, analyze, and apply what they’ve learned "p.7. He also suggests that graphic organizers contribute to better test scores because they help students understand relationships between key ideas and enable them to be more focused as they study.

Additionally, many students benefit from routine and structure, so using graphic organizers consistently in the classroom will help them internalize the organizing techniques that are being taught. The more students are exposed to organizers, the more familiar and comfortable they will become using them. (Stowe, 2015)

2.3. The main types of graphic organizers

2.3.1. Frayer model

The Frayer model is also one of the vocabulary graphic organizers. The Frayer model has different definitions suggested by scholars, for example, Frayer and Klausmier (1969) defined the Frayer model as “The Frayer model is a graphic organizer that helps students gain a more sophisticated understanding of vocabulary by using four quadrants on chart to define

examples, non-examples, characteristics, and non-characteristics of word or concept” (as cited in Boukhelf, p. 42). This means that learners become more knowledgeable of words meaning through writing their definition, characteristics, examples, and non-examples.

Moreover, Frayer and Klausmier (1969) said that the Frayer model “is a strategy in which students use the graphic organizer as means to better understand a concept and distinguish that concept from other they may know or maybe learning ” (as cited in Brummer & Macceca,2008,p.53). They believed that using the Frayer model contributes to differentiating new words and to what learners have memorized before.

Additionally, Alashry, Qoura & Gohar, (2019) state that through the Frayer Model students can understand not only the meaning of an unknown word or concept but more importantly, they will be able to internalize the word or concept so that it becomes part of their everyday vocabulary. The chart of the Frayer Model consists of four squares to complete definition, characteristics, examples, and non-examples and an oval in the center for the word or concept being studied. The Frayer Model is a graphical organizer used for word analysis and vocabulary building. This four-square model prompts students to think about and describe the meaning of a word or concept by defining the term, describing its essential characteristic, providing examples of the idea, and offering non-examples of the idea.

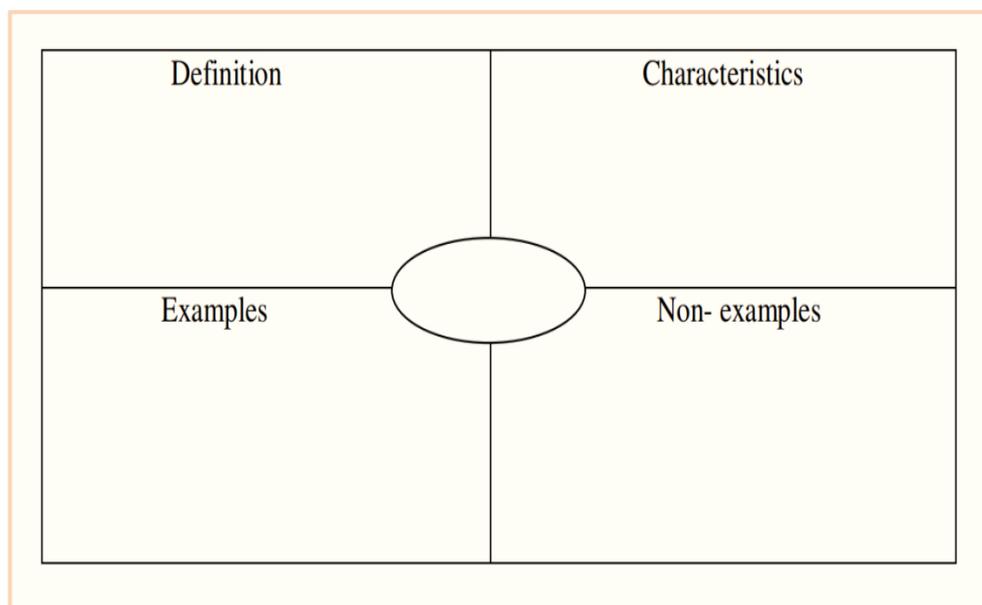


Figure 5 Frayer Model (Macceca, 2008, p. 55)

2.3.2. Venn Diagrams

According to McKnight (2010), Venn diagrams are " graphic organizers that provide a visual comparison of similarities and differences between subjects. The structure of this organizer is applicable to a wide variety of topics" p.12. In her book "The teacher's big book of graphic organizers" she explains that Venn diagrams can be easily adapted to include more than two topics and one common area. Once the students have completed the Venn diagram, they should discuss and explain what they have included in the circles and common area(s). These discussions can be completed in large or small group discussions. The middle area where the two circles overlap can be tricky. Sometimes the students become confused and continue to put opposites or comparisons in this space. Using different colored markers or

pencils for each circle and the overlapping intersection is a simple adaptation that allows students to see the differences and similarities in the presented information from the onset.

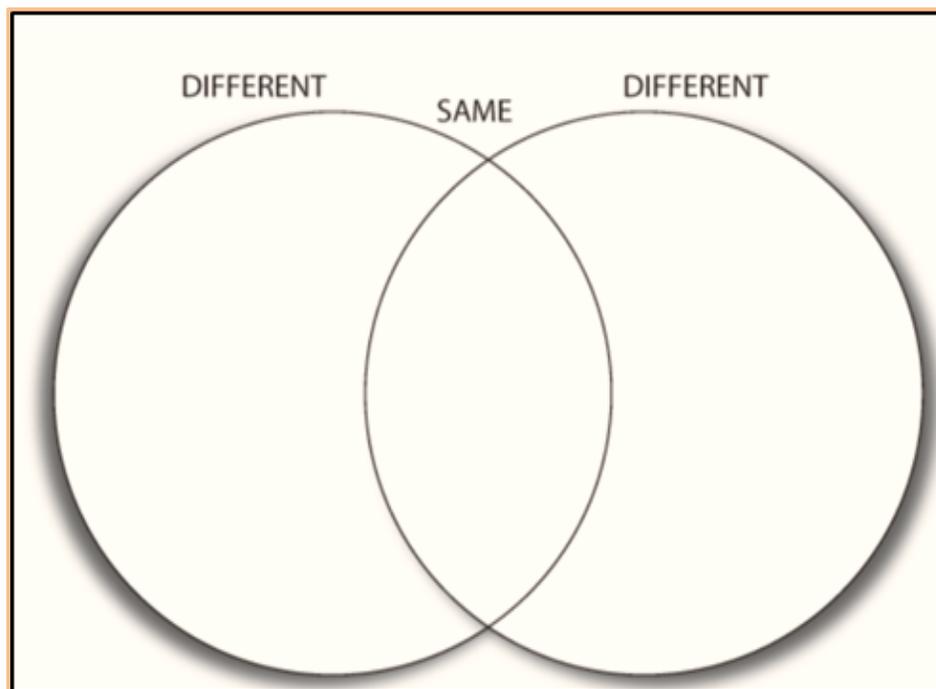


Figure 6 Venn Diagram, University of Minnesota, 2019

2.3.3. Webs

Hamilton, 2005 defines webs as "graphic organizers that can show how facts or ideas are related." P.8. She explains that Webs don't just show the information; they show the overall structure of the information and the connections between different pieces of information. Webs can help you associate ideas and make connections you might not otherwise have made. They can also help you group information into categories. You can use webs to summarize an article or a chapter in a book. They are also useful in the early stages of writing an essay, as they can help you organize your material and see how ideas fit together.

Webs are particularly useful when you have information that relates to the main topic but does not fit into a hierarchy. Webs are also very useful when you are combining data from more than one person. For example, if you are partnered with another student, or grouped into a field study team, at some point, you have to combine and evaluate the group's data. (Hamilton, 2005)

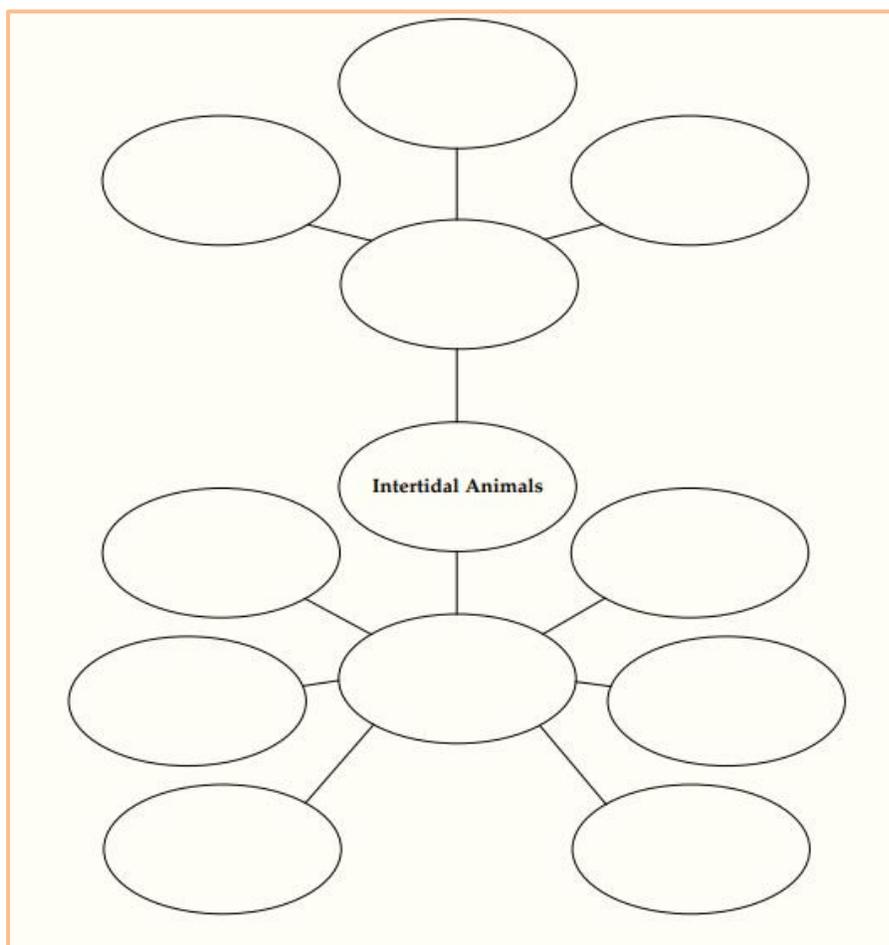


Figure 7 Web map by Hamilton, (2005), p. 11

2.3.4. Cause and Effect

According to Stowe, (2015) "A cause and effect map illustrates the relationship between the effect and the cause."p.7. She further explains that it can be used to organize the

plot of a story and you can also use it to help sort out the events of an informational story. The format of cause and effect maps is flexible. For example, you can create a chart that lists just one effect. Then you can compose the list of causes that led to the event. You can also make a chart that shows one cause and several effects.

Moreover, Stowe, (2015) explained that a cause-and-effect diagram highlights the direct relationship between different events or concepts. This tool is one of the most beneficial organizers because of its many applications in all subject areas. A cause-and-effect diagram can be used to visualize a major event that has multiple causes and effects. The purpose might be to analyze characters and events in reading, to discuss major events in social studies and history, or to study the impact of a science experiment. For example, a teacher might ask students to identify three causes and three effects of Goldilocks coming into the three bears' house, the American Revolution, or the process of photosynthesis.

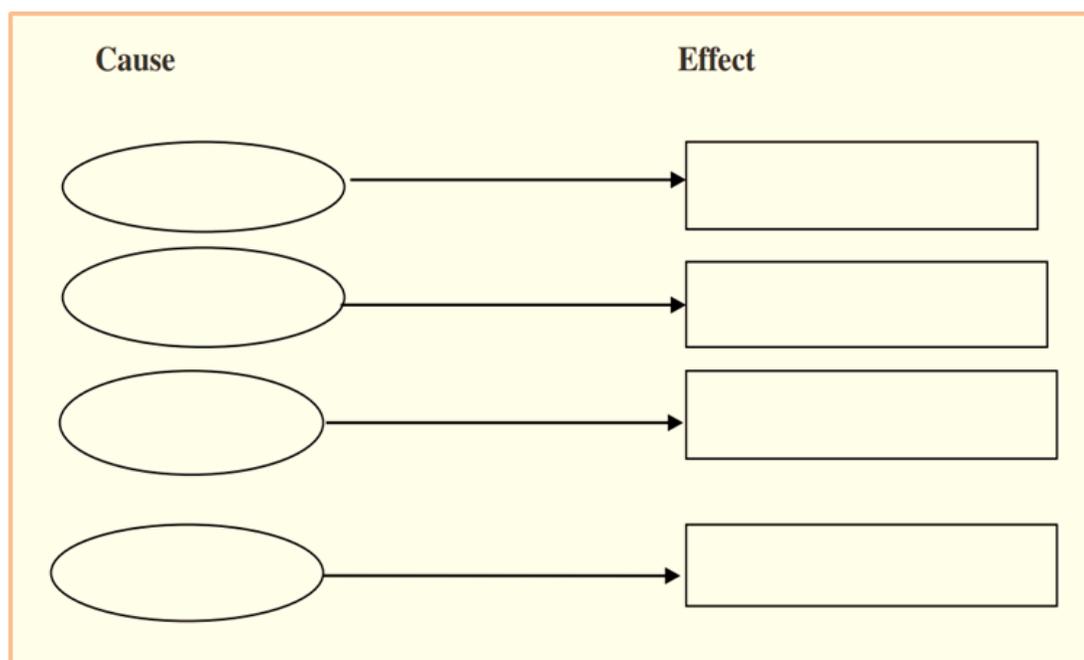


Figure 8 Cause and effect diagram Cleveland, 2005, p.34

2.3.5. Spider maps

McKnight, 2010 defines spider maps as "A free-form graphic organizer that allows students to think hard about information as both visual and metaphorical." P.48 .Cleveland, 2005 defines a spider map as another graphic organizer you can use to organize your reading notes. He adds that you can use a spider map any time you want to illustrate the main idea and details of a text.

McKnight, 2015 explained that to use a spider map graphic organizer Teachers need to choose a central idea, character, text, or problem. Explain to the students that this graphic organizer will help them visualize their ideas and organize and connect their thinking. Put the students in pairs to fill out the Spider. Once the pairs have completed the organizer, have them share their completed work. Discuss with the students the similarities and differences among their responses.

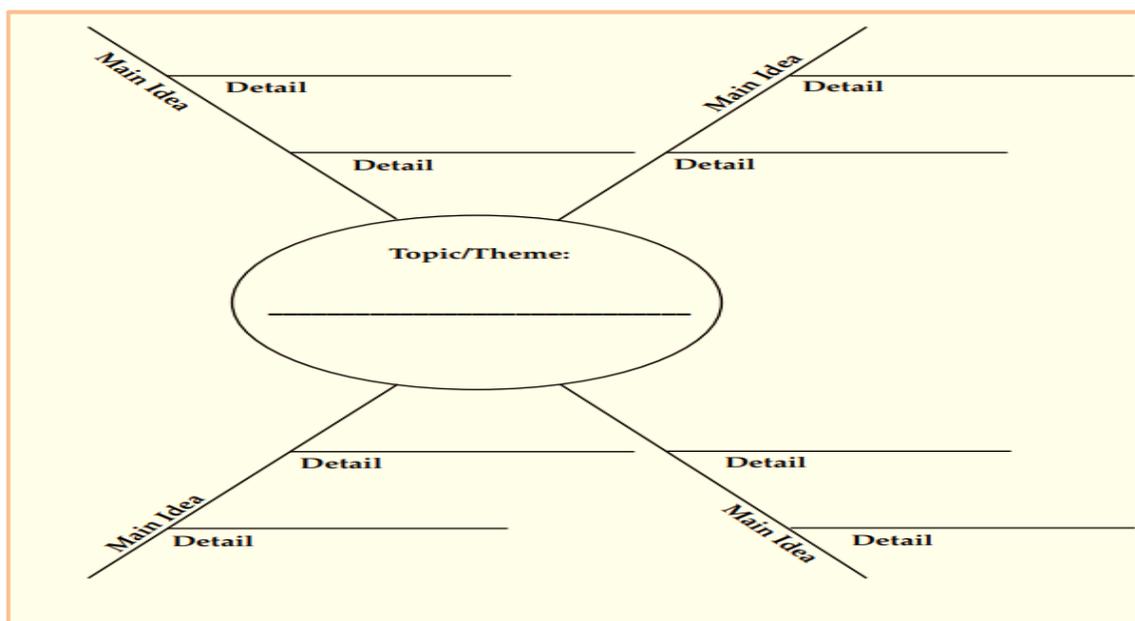


Figure 9 Spider map by Cleveland, 2005, p.22

2.4. Types of Reading Graphic Organizers

2.4.1. Story map

According to Stowe, 2015 “A story map visually displays the main characteristics and elements of a piece of fiction. It usually includes space to note the characters, setting, problem, events, and solution of a given story” p.10. A story map is a valuable resource for identifying, categorizing, and describing major elements in fiction.

Additionally, Stowe (2015) state that a story map can be introduced in the primary grades using pictures and one-word labels, and then become more complex as students’ abilities increase. At various stages, numerous story events, primary and secondary characters, and multiple problems and solutions can be added to the map.

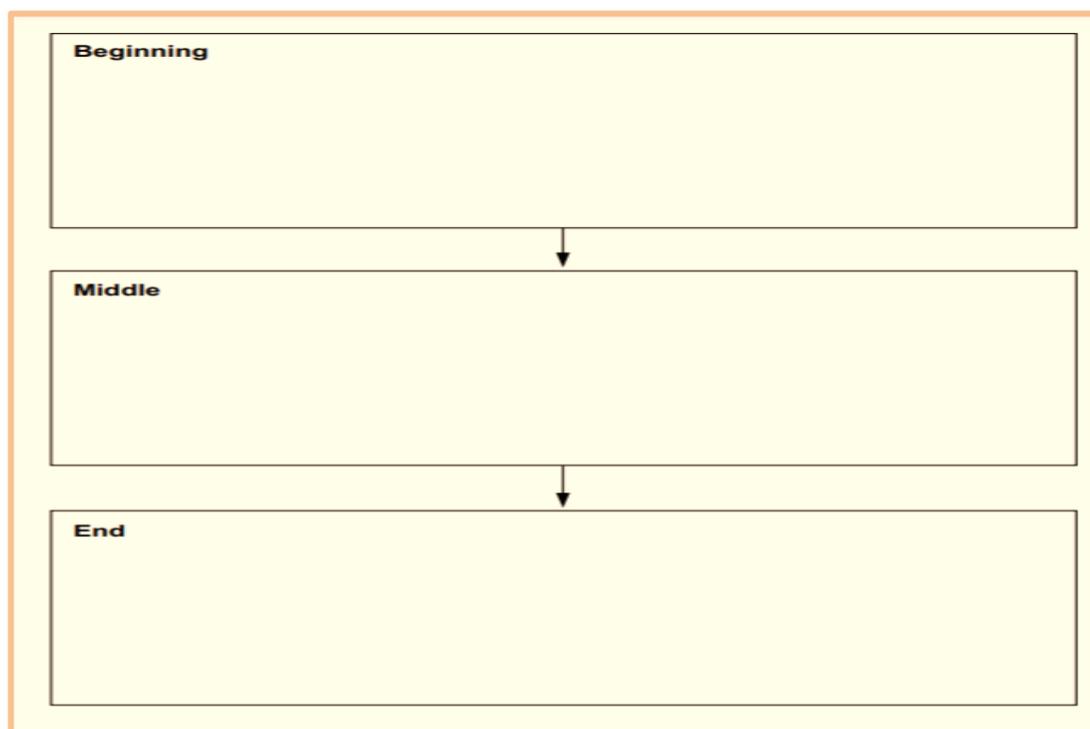


Figure 10 Story map by McKnight, (2010), p.181

2.4.2. Story Trails and History Trails

According to McKnight, 2015 this graphic organizer offers a structure for students to put events from a story or the stages of a historical event into chronological order. An understanding of the key events facilitates greater exploration into the structure of the story. She explains that factors such as: are the events related by cause and effect, do they connect as situation-problem-solution, or is the story simply one of beginning-middle-end? Recording the text and visual images of the key events also enhance students' comprehension.

Additionally, McKnight, 2010 states that Students will develop connecting, using background knowledge, predicting, and visualization strategies.

DIRECTIONS: Write down and illustrate the key events in chronological order.

1	2	3
4	5	6

Figure 11 Story Trails and History Trails by McKnight, 2010,9. P13

2.4.3. Character relationship map

According to Bromley et al., (1999), by using character relationship map graphic organizer students can understand the relationships among and between characters in a story and that is by identifying and examining the feelings and emotions that accompany actions, students can better understand the complexities of individual characters and their interactions with one another.

Additionally, Bromley et al., (1999) explain the process of using a character relationship graphic organizer. Students must start by identifying the main character from a book the class is reading or has just finished reading and put the character's name in the center circle as portrayed in the graph below. And then they proceed with putting the names of secondary characters from the story in the other circles. After that, the teacher must Have students identify how the main character feels about each of the secondary characters and Ask students to identify the actions or references from the text that support their ideas, and then finally teachers must Discuss with students how the interplay among characters' feelings and emotions can be both a cause and an effect leading to characters' actions or inertia.

Furthermore, Bromley et al., (1999) explain that by Using the character relationship map helps students relate to characters from historical fiction, a genre they may have trouble understanding because the stories are set in another time and characters often speak in unfamiliar language patterns. It also helps to develop story involvement and understanding by having each student put his or her name in the center circle, filling in the other circles with characters from the story, and then writing their feelings toward these characters.

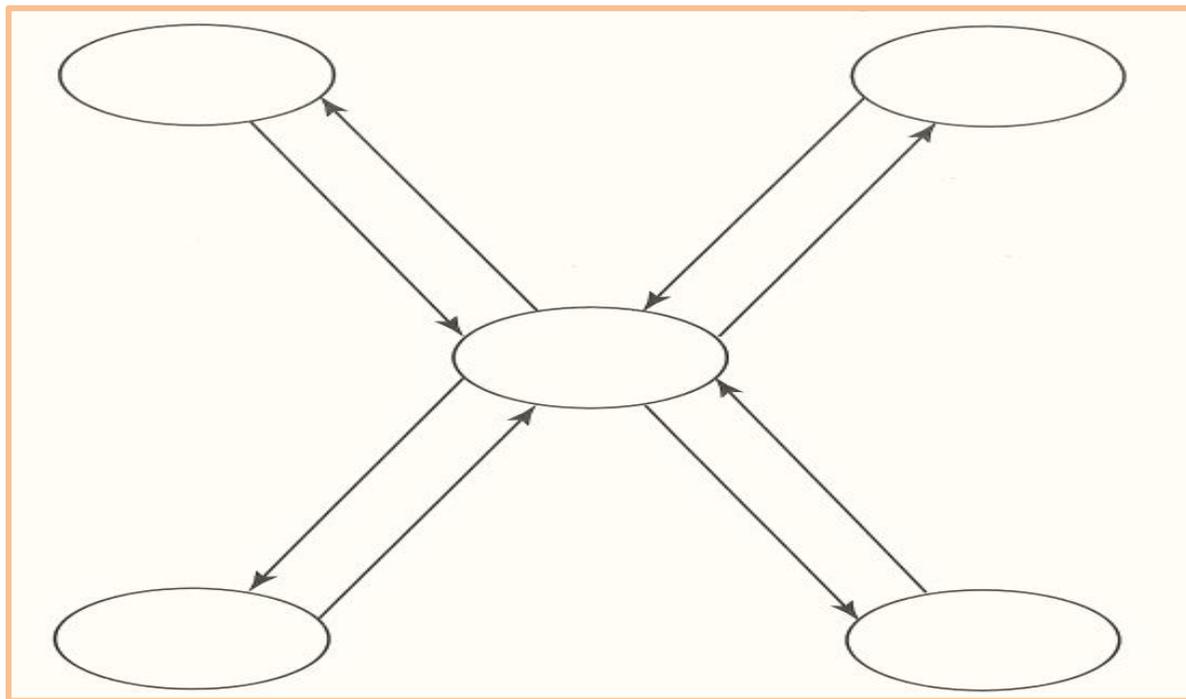


Figure 12 Character relationship map by Bromley et al., 1999, p. 25

2.5. KWL chart

Good teachers are always searching for ways to enhance learning in their classrooms. Researchers and practitioners alike continue to develop and refine strategies that improve comprehension and increase retention while nourishing student's ability to learn independently. The K-W-L strategy is a strategy that is believed to enhance learner's reading comprehension skills.

2.5.1. Definition of KWL chart

The KWL strategy was originally developed by Ogle (1986) to enable teachers to access the prior knowledge of students and to help students develop their purposes for reading expository text. Donna Ogle launched this strategy in 1986; she developed a teaching approach that gets young readers even closer to independent reading comprehension. Whistler and Williams (1992) give another explanation for Donna Ogle's KWL strategy. According to them, KWL strategy is an effective and flexible lesson design that can be applied most appropriately, especially to any non-fiction material about which students have some prior knowledge and background already. In their 'Literature and Cooperative Learning: Pathway to Literacy' book, they adapt Ogle's KWL strategy to use with a cooperative group of four. (as cited in Rahmasari)

According to McKnight (2010), "the KWL strategy is a three-column chart that captures the before, during, and after stages of reading" (p.16). She further states that the K column stands for "what I know", i.e. what a reader already knows about the selected text topic. In this stage, students activate their prior knowledge before they begin reading. As we know from research in reading, prior knowledge supports student comprehension. The W column stands for "what I want to know", i.e. what a student wants to know about the selected text topic. In this stage Students ask questions before they read a text which also supports their comprehension. The L column stands for "what I learned", i.e. what the students learned about the topic after reading the text. Students' reflecting and thinking about what they just read aids them in their ability to synthesize newly acquired information with prior knowledge. (McKnight, 2010)

Several studies investigated the effectiveness of KWL in teaching reading on information texts. Farrell (1991) describes the use of the K-W-L in her classroom and applauds its effectiveness particularly when combined with mapping and summary writing. Additionally, Van Sledright (1992) found the K-W-L helpful in teaching social studies to fifth graders. Piper (1992) reports using K-W-L as one of five metacognitive strategies which enhanced the reading comprehension of sixth graders in the area of social studies. These studies show that the use of KWL strategy in a reading class is effective and will enhance learner's reading comprehension skills. (as cited in Shelly, Bridwell, Hyder, Ledford& Patterson, 1997)

K What do I already know about this subject?	W What do I want to learn about this subject?	L What did I learn about this subject?

Figure 13: The K-W-L Adapted from “Graphic Organisers”, by Wren,2009, Balanced Reading.com

2.5.2. Advantages of KWL strategy chart for reading comprehension

Ibrahim (2005, p. 125) and Bahloul (2004, p. 185) cited the advantages of the KWL strategy as follows:

1. It promotes the idea that makes students the center of the teaching-learning process, rather than the teacher.
2. It enables teachers to achieve wide strides and great advances to enhance the classroom learning environment.
3. The strategy enables teachers to begin the school year with clear objectives laid down in advance, and then they think with the students in a consistent and collaborative manner whether these objectives have been achieved or not.
4. It helps teachers to enable their students to tackle any subject whatever the degree of its academic difficulty, via activating their prior knowledge, and rousing their curiosity and excitement.
5. It enables students to determine and lead their learning. The teacher should attribute students' success in their learning to the effort they have expended

Additionally, Attia (2009, pp. 252-253) adds the following advantages of this strategy:

1. It makes the student the center of the teaching-learning process and emphasizes autonomous learning and self-dependence.

2. It enables the learner to achieve significant progress in the structure of learning.
3. It can be used with students at the beginning of the school year to determine what they want to learn, and compare it with what they have learned by the end of the year.
4. Activating prior knowledge and arousing students' curiosity to think and enables them to learn subjects, regardless of the degree of difficulty.
5. It can be used in all stages of schooling and learning materials.
6. It enables students to determine what they learn and lead themselves in the learning process.

Overall, the old way of teaching reading simply instructs students to directly read a passage and answer some comprehension questions that follow. This approach will not let the new information last longer in students' minds. Meanwhile, KWL directs students to involve in writing their ideas before, during, and after reading a text. These continual stages allow the new concept from the passage to stay longer in student's long-term memory. The following graphic summarizes how the KWL strategy runs in a reading class.

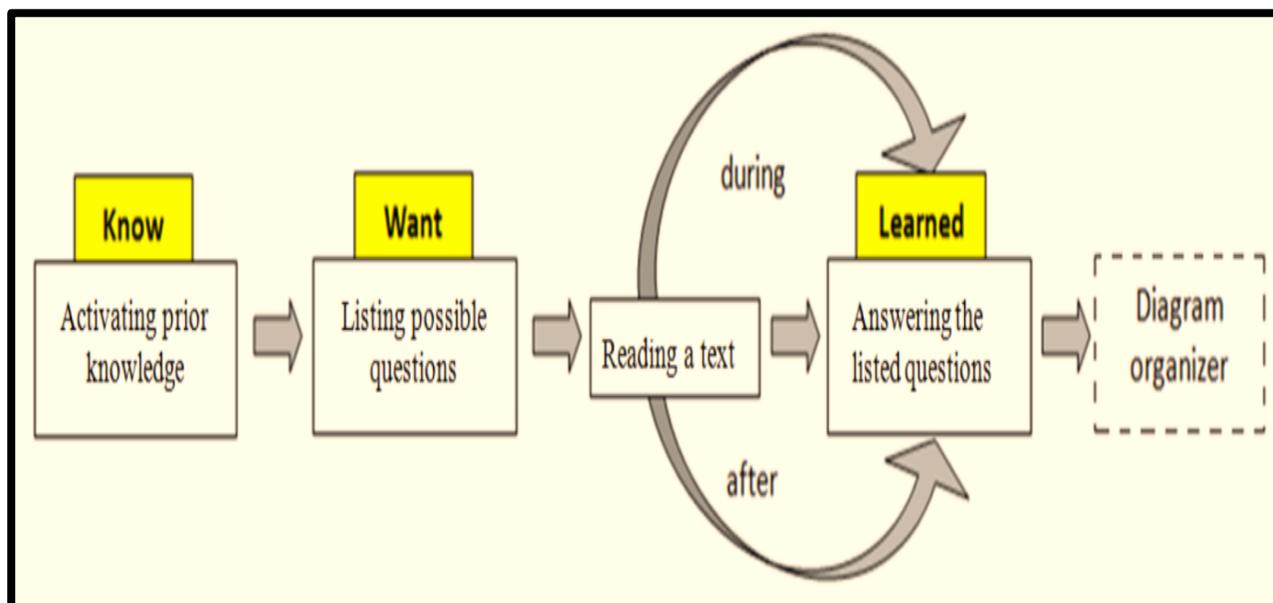


Figure 14: The implementation of the KWL strategy (Wijaya, 2015)

2.5.3. KWL Procedures:

For the KWL strategy to be effective when implemented in the reading classroom, students and teachers must learn its procedures. Therefore, Youniss, (2013) state that K.W.L is one of the strategies that attempt to improve reading comprehension in different ways. It activates the students' previous knowledge about the topic, helps the students monitor their comprehension of the text, lets students evaluate their comprehension of the text, and provides students with the opportunity to expand the textual knowledge and exceed that as to read beyond the lines.

Moreover, Rahmasari, Amumpuni (2014) add that the activities of KWL can be varied depending on the condition of the students and the creativity of the teacher. KWL can be done individually, in pairs, or a group. The topic selection is the most prominent point that should

be noticed by the teacher. The topic should be on the students' level and match with their prior knowledge. Some of the students' questions might not be answered clearly from the text; in this case, teacher should record the questions as the discussion materials. The unanswered questions are a good chance to start the class discussion. The answers can be found both on the students' statements on the know-column or based on the agreement of the discussion. In this discussion, the teacher serves as a recorder. Before closing the class discussion, the teacher asks the students to answer some comprehension questions about the text and finally make a summary of what they have read which according to Kinsella will help students keep what they have read in their head and helps students identify the most important point in their reading activity.

The K-W-L strategy consists of three basic steps representative of the cognitive/metacognitive steps that students employ as they use the strategy:

1. Accessing what I Know
2. Determining what I Want to learn
3. Recalling what I Learned ((Bos & Vaughn, 2002, p. 245)

To assist the students in using the strategy, Ogle (1986) developed a simple worksheet for the students to complete during the reading–thinking process.

2.5.3.1.Know

During the Know step, Vaughn and Bos (2015) explain that the teacher and students engage in a discussion that is designed to assist students in thinking about what they already know about the topic of the text. For this step, Learners begin by brainstorming everything they know about the topic. The relevant information is recorded in the K column of the KWL

scheme (Table 1). The role of the teacher is crucial in this step because he encourages the students to brainstorm all the information they know about the topic. The teachers can also help students by giving examples of what to write to help them understand the activity better.

Jones (2007) states that “before reading, viewing or listening to students fill in the known column with words, terms, or phrases from their background or prior knowledge; if the teacher is having them draw on a topic previously learned, then the K column maybe topic related.” p. 1, but if the topic is something brand-new, and the students do not know anything about it, the teacher should use the K column to have them bring to mind a similar, analogous, or a broader idea. He adds that the reason behind doing the K column in the chart is to have students bring to mind something they already know, as a hook to which new information can be attached.

2.5.3.2.Want

The want step is also done prior to reading. In the W column, the Teacher instructs students to individually list some questions that they are curious about. Conner (2006, p. 2 as cited in Youniss, 2013) highlights the role of the teacher who asks his/her students what they want to learn about the topic after they run out of ideas for the question. If they answer with statements, the teacher will turn them into questions when they record in the W column. Furthermore, the teacher prepares several questions to focus on ideas in the passage when s/he feels that students' questions are not enough to emphasize them; however, the majority of students' questions should be more than the teachers' questions in the W column because they are students-generated or call it student-centered questions. Once students finish writing their questions, teachers can give them the text to read. New questions may be added during

reading (Carr & Ogle, 1987). Teachers also make sure to explain difficult words while students read. In some cases, the task types for reading might differ based on the students' competence. Teachers can vary the task type such as asking students to work in pairs or small groups.

2.5.3.3.Learned

According to Youniss, 2013, after reading the text, students fill out the L column of their charts with what they have learned. Also they answer the W column questions, the teacher increases students' motivation to write in the L column the interesting ideas they come up with, and they can put a checkmark to the information that answers questions from the K column and put a star next to the ideas that are interesting to them. As for the questions that are not answered in the passage, the teacher encourages the students to consult other resources to search for answers.

Additionally, Jones (2007), notes that this stage is called Metacognitive. He determines the purpose of using this chart to develop meta-cognitive skills, keep the students focused and interested during reading, and gives them a sense of acquired information when they fill in the L column after reading. Ogle recommended using KWL with informational text in any grade level and any content area. She also found it adaptable to the reading group or content area setting. The simplicity of the procedure has made it popular with teachers. (as cited in Scott, 2008)

2.5.4. Problems in using KWL strategy

Students has to understand what their role involves and why the process of explaining K.W.L is important for learners to examine what they know about the topic they will read and study. Ibrahimi (2012) stated that “in using steps of K.W.L chart with a group or inter-class, some students will find it difficult to complete the K.W.L sheet on their own. Others will avoid taking a risk and revealing what they know or don’t know about the topic. Others simply won't be positively motivated.” p. 55

Additionally, Ataie (2008) mentions that most students use the style of statement not questions; furthermore, they use their native language when they cannot explain what they want to learn the English language. (as cited in Rahim, 2015, p. 29). He adds that students' responses are also revealing. It is not surprising that students approach the strategy more seriously when the material is relevant and interesting.

2.5.5. Reasons for using KWL strategy

There are many reasons for using K.W.L strategy in the classroom,

First: K.W.L strategy activates students’ prior knowledge of the topic by asking students what they know about the topic, and this step operates students’ thinking and restores their experiences about the topic.

Second: K.W.L strategy provides an opportunity for students to participate and engage in the topic by asking them what they want to know.

Finally: this step is very important because it allows the students to expand their knowledge and know their needs and interests; besides, the teacher has a clear picture of his/her students to prepare a lesson plan that they enjoy. (Youniss,2013, p.51).

Moreover, Backman (2006, p. 79) states that it enables the teacher to assess students' background knowledge and interests before the lesson. Afterward, it helps teachers to evaluate the content material that is learned. K.W.L strategy represents as a class activity or an individual basis. The K.W.L strategy can be completed in the first language or with illustrations if students have limited English proficiency. (As cited in Rahim, 2015)

To sum up, K-W-L has been an effective strategy that is developed to meet learner's needs and enhance their reading comprehension skills as well as other skills such as brainstorming and vocabulary retention and many others.

Conclusion

In conclusion, since reading comprehension is necessary for the other learning skills: speaking, listening and writing and learning the English language depend on reading comprehension. Therefore, Learners who can master reading comprehension are able to communicate effectively. However, most students have weak reading comprehension skills and fail to construct meaning from texts. Hence, teachers are required to select effective strategies that can improve reading comprehension. This chapter shed the light on the importance of the reading comprehension skills and how can the KWL strategy improve students' Reading comprehension.

CHAPTER TWO

ANALYSIS

AND

INTERPRETATION OF

DATA

Introduction

The previous chapter summarizes the main findings of Reading comprehension skills and the KWL strategy model. However, the current chapter is the representation of the fieldwork and the analysis of the collected data. Initially, it shows a theoretical background concerning the methodology of the study, along with the rationale of each data collection methods and the strategies that are used to examine the study's hypotheses. The chapter also presents data analysis and the interpretation of the results, in addition to the statistical processes. Finally, this chapter provides a thorough discussion of the findings to answer the research questions and to test the hypotheses in the general introduction of this study. This chapter provides an overview of research design, population and sample, data collecting technique, research procedure, data analysis, and hypothesis testing that were applied in this research.

3.1. Research methodology

3.2. Research approach

Different approaches are used to collect data in research. Dörnyei (2007) suggested three approaches: a quantitative approach, a qualitative approach, and a mixed method. He defined quantitative research as a method that contains different data collection procedures, and the data collected are numbers which are analyzed by statistical methods. Therefore, the quantitative method is used in applied linguistics studies for the sake of examining, measuring, and quantifying a certain phenomenon.

Moreover, he described the qualitative research the same as a quantitative one, but this later results in words instead of numbers, and these words can not be analyzed by SPSS. In other words, the qualitative approach differs from a quantitative approach according to the specific description of a specific phenomenon. The qualitative approach describes the form of words while the quantitative approach provides a numerical description.

The present study aims mainly to investigate the effect of the KWL strategy in enhancing reading comprehension skills. Therefore, the research approach adopted to carry out this study is the quantitative research approach because it serves the nature of this research. Besides, this kind of research approach was opted for because it is well suited to answer the research questions and ensure the realization of its aims.

3.3. Research design

In the current study, we relied on a quantitative design, which was represented in a Case Study. Furthermore, we have also used another quantitative design, which is the quasi-experiment due to the nature of the present study.

3.4. Population and sample

The population of this study was second-year students of Mustapha ben boulaïd high school of Batna. The population was five classes while the sample was one group that consists of twenty-nine (N 29) students among five classes of the population. The sample was selected by the teacher of the class and the principal reason behind the selection of this sample is that their teacher noticed that students of this class have weak reading comprehension skills. The sample has at least 6 years of experience with the English language; starting from their first year in Middle School till their current level which is second year in high school.

3.5. The Quasi-Experimental Study

The quasi-experiment defined by Cook & Compbell,1979 as " the quasi-experiments are similar to true experiments in every aspect except that they do not use random assignment to create the comparisons from which treatment caused- change is inferred"(as cited in Bekhlef, missing year P.55). This means in quasi-experiment participants do no select randomly while in the true experiment the sample selected randomly. The quasi-experimental design was selected in this study to measure the effect of KWL strategy in improving learners' reading comprehension skills.

The quasi-experiment aims to investigate the effectiveness of the KWL strategy in enhancing student's reading comprehension skills. Moreover, according to Moore, (2008 as cited in Meddour, 2014), quasi-experiment has specific designs that can provide helpful discussions of cause and effect relationship between the variables of the study. We opted for a quasi-experiment that relies on a one group pre-test and post-test design because according to Krik (1995), as cited in Meddour (2014), issued that the one group pretest-posttest design allows for two hypotheses, the alternative (H1) and the null (H0) hypothesis; that is to say that by the end of the treatment we will either accept or reject one of the said hypotheses.

Additionally, Meddour, (2014) stated that "conducting a pre-test and post-test experimental design will put the researcher in a better position to claim that the differences in tests' scores values are due to the experimental treatment" (8). Furthermore, the quasi-experiment was carried out in six (6) sessions within four (4) weeks and one (1) hour for each session on three stages: the pre-test, the quasi-experimental treatment, and the post-test. The first and the final sessions were, respectively, devoted to the pre and post-test; the remaining 4

sessions were allocated for the treatment. However, these three stages are aimed at gathering the necessary data before and after the treatment.

3.5.1. The Quasi-Experimental Procedure

The following is a detailed description of the different stages of the quasi-experiment which was carried out in four weeks on four stages: The pre-test stage, the quasi-experimental treatment stage, and the post-test stage. In the beginning, we explained the experiment to students, its objectives, and principles and procedures.

3.5.1.1. The pre-test

The test was administered in the first session of the experiment procedure to (n= 29) students and this stage lasted an hour. According to Gass and Mackey (2016) "In many second language studies, participants are given a pre-test to ensure the comparability of the participants' groups before their treatment, and a post-test to measure the effects of treatment" (p.202). In other words; the post-test is conducted in research to help the researcher know learners' level and their weaknesses while the post-test is used to measure learners' performance and to check their improvement after the intervention. Thus, the post-test and the post-test are used to compare results.

The test was a reading comprehension test that contained a text that was chosen by the researcher with a topic that is appropriate for the student's interests and related to the unit that they were already studying in the regular curriculum. The researcher also tried to design a reading comprehension test that meets the student's level and after constructing the test it was revised and validated by the group's teacher. The pre-test aimed to explore student's level in reading comprehension to construct the treatment according to their needs and level.

Moreover, the Test questions were twenty (20) multiple-choice questions and the researcher varied the degree of difficulty of the questions from easy to everyone to medium and hard. The three main focuses in structuring the test are familiarity, simplicity, and adequacy. Therefore, the pattern of the test was direct and practical to engage students and raise their interaction. Students were given the test papers and had one hour to read the text carefully and then answer the multiple-choice questions. In addition to that, the use of smartphones, dictionaries, and other materials was forbidden to give more credibility to this research. Then, after the time limit of the test was over, copies were gathered by the researcher.

3.5.1.2. The treatment stage

The Treatment sessions were held after the correction of the pre-test and examining students' weaknesses in reading comprehension. The first treatment session was on the 17th of November 2019. The researcher designed a course that included a text that is relevant to the unit that the class dealt with within the curriculum. Before each treatment session, the researcher held small topic-choice voting. Students had the chance to vote for their favorite text topic from a list of interesting and curriculum-oriented text topics.

In every treatment session, the researcher started by administrating papers that had a printed KWL chart for the students to fill out. The KWL chart was printed with a colorful design and a large space for the students to have space to express their thoughts. In addition to that, written instruction on how to fill the chart was written at the top of the paper along with a space to write down the full name and text topic. Instructions were also verbally explained by the researcher to ensure that all students understood them.

Students were asked to only fill in the first column of the chart which is the K column that stands for "WHAT I KNOW". This column is devoted to brainstorming the background and prior knowledge of the students about the chosen topic of the session. Students were asked to write freely any idea or information they had in mind about the topic while the researcher tried to help with any difficulty students' had while filling the column. In addition to the K column, students were also asked to fill in the second column of the KWL chart which is the W column that stands for "WHAT I WANT TO LEARN" which is devoted to writing what students want to explore and know about the given topic. Students were asked to write down questions they want an answer to about the topic while the researcher helped struggling students to express their ideas.

After filling both the K and W columns of the KWL chart, it was time to read the text. The text was administered to the entire classroom and students were asked to read it carefully and silently several times. After that, the researcher had a few minutes to explain words that the student's found difficult to understand. After that students were asked to finish the final step and fill in the last column which is the L column that stands for "What I learned". This step is devoted to explore what students have learned from the text and see how much they have comprehended. Students were asked to write down the L column all that they have learned from the text they've read.

Additionally, a small additional activity was administered at the end of every treatment session. Since the KWL strategy is not only designed to help with reading comprehension skills but also with vocabulary retention. Therefore; a semantic map activity was carried each treatment session after the KWL activity. The semantic map included the title of the text in the middle and blank linked circles for the students to fill out. The aim of

this activity is for students to write down all the words and vocabulary they have learned about the text topic. Students were asked to fill out the semantic map with vocabulary related to the text to examine and enhance their vocabulary retention skills.

Finally, this process was repeated for the remaining treatment sessions with different topic choices that the students had a chance to vote for. Students were encouraged to express all their thoughts in the activities by the researcher and the help of the classes' teacher.

3.5.1.3. The post-test stage

In this stage, the researcher has asked the participants to sit again for a post-test to test their reading comprehension skills after their exposure to the treatment which was reading texts and dealing with them with the KWL strategy chart instead of the traditional classroom reading comprehension activities they are used to. The test has the same structure as the pre-test but we have chosen an additional activity that we found appropriate after examining the development of the treatment. The test was constructed of a text and fifteen (15) multiple-choice questions; in addition to three (3) reading comprehension questions for the students to summarize what they have understood. This test aims to see whether the KWL strategy chart helped in improving student's reading comprehension skills after the treatment.

4. Analysis and Interpretation of students' scores

As a final stage of the treatment, learners scores in the pre-test and post-test were collected, interpreted, and analyzed statistically and graphically using the experimental research quantitative descriptions, namely the frequency distribution of scores in both tests, the mean, standard deviation, T-test, and hypothesis testing because these statistics "are the most widely used measures in research reports and papers" (Calder & Sapsfords, 2006, p.214

as cited in Meddour 2015). Hence, the results of the scores were collected to compare students' performance before and after the exposure to the KWL chart.

4.1. Statistical Consideration

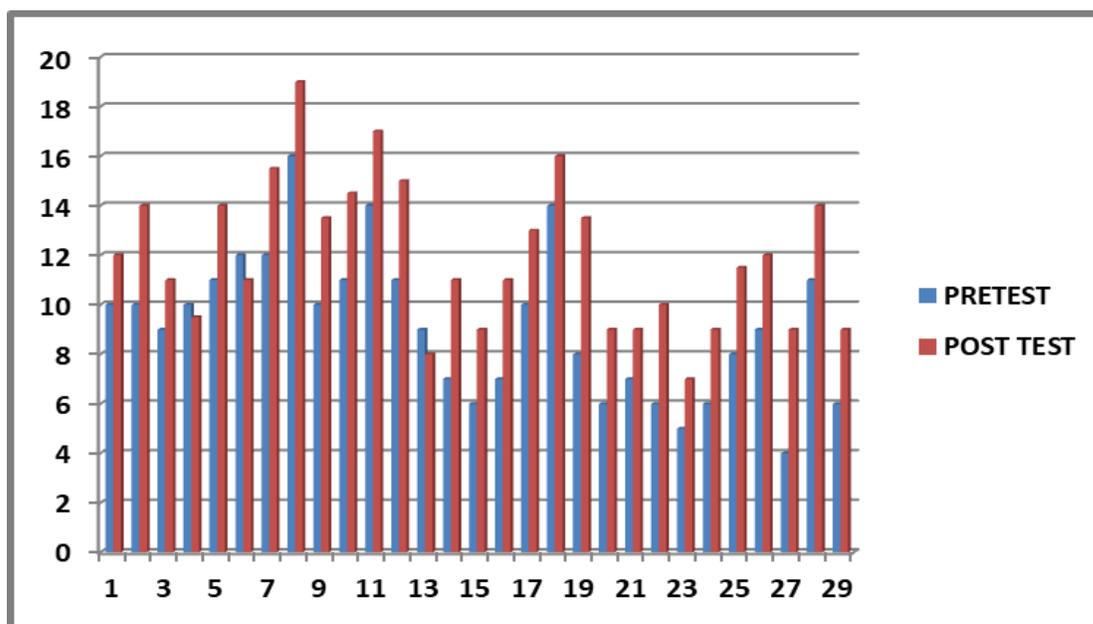
To examine the difference between the pre-test and post-test results statistically, we need to compute the Mean, the Variance, and Standard Deviation, that would allow us later on to apply and calculate the t-test, and the statistical significance. The calculating was made by the SPSS package instead of manually.

4.2. Student's scores

N	Pre-test	Pos-test
01	10	12
02	10	14
03	9	11
04	10	9.5
05	11	14
06	12	11
07	12	15.5
08	16	19
09	10	13.5
10	11	14.5
11	14	17
12	11	15

13	9	8
14	7	11
15	6	9
16	7	11
17	10	13
18	14	16
19	8	13.5
20	6	9
21	7	9
22	6	10
23	5	7
24	6	9
25	8	11.5
26	9	12
27	4	9
28	11	14
29	6	9
Sum of Scores	265	347

Table 1 Students' scores in pre-test and post-test



Graph 1 students' Pre-test and Post-test Students' Scores

It is clear from the Table and graph above demonstrate that there is remarkable progress in participants' scores from the pre-test to the post-test, which is shown in the sum of scores (265 VS 347) with a vast difference of 82 between both sums. However, it has to be noted that the students who were present throughout the whole treatment have improved their reading comprehension skills better compared to those who did not attend all the lectures.

4.3. Frequencies of the Scores

The table below shows the frequency of the student' scores:

Pre-test		post-test	
Score	Frequency	Score	Frequency
4	1	7	1
5	1	8	1
6	5	9	6
7	3	9.5	1
8	2	10	1
9	3	11	4
10	5	11.5	1
11	4	12	2
12	2	13	1
14	2	13.5	2
16	1	14	3
Tota	29	14.5	1
1			
		15	1
		15.5	1

16	1
17	1
19	1
Tota 1	29

Table 2 Frequency Distribution of Score Values

From the table above we notice a difference in participants' scores and frequencies from pre-test to post-test. Starting with the pre-test, the researcher notices that the scores range from 4 to 16. In addition to that, 15 students scored less than the average 20, and 14 of the scores above the average with the score 10 being the highest score frequency. On the other hand, with the post-test scores, we notice that the scores range from 7 to 19. Moreover, 9 students scored less than the average 20, and 20 of the scores above the average which may indicate that the KWL strategy has helped in enhancing student's reading comprehension skills.

1. **The mean**

It is symbolized in writing as (\bar{x}) , which represents the average of scores.

2. **The Standard Deviation (SD)**

It is used to calculate to what extent a set of scores varies to the mean.

3. **The variance**

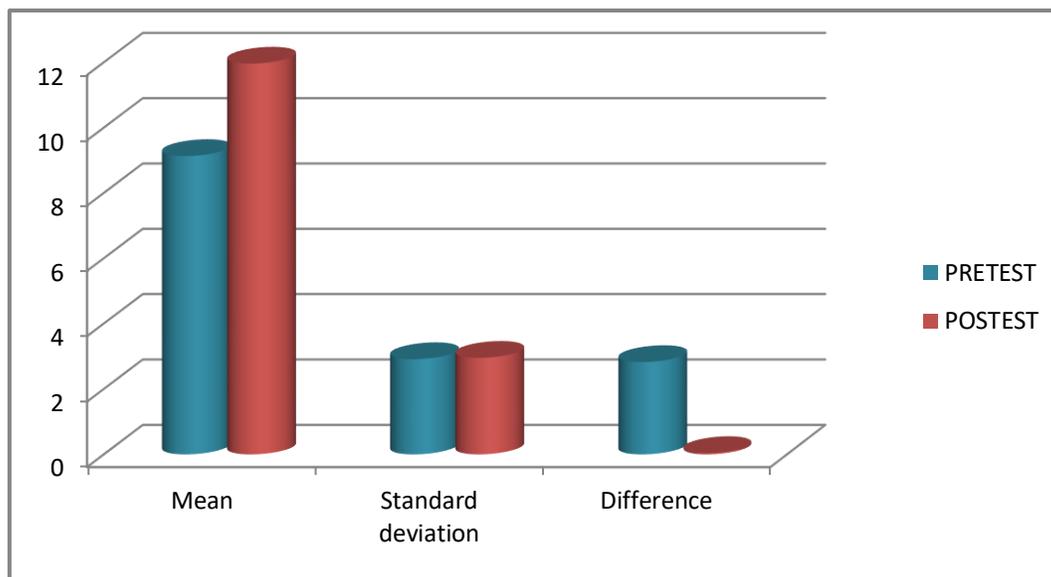
The Variance is symbolized as (S^2). It measures and gives a general idea of how far and spread out our data set is.

All of the above (the means, SDs and S^2) have been computed using the SPSS, and the results are:

	N	Mea n	Std. Deviatio n	Varianc e
Pre-test summed score	29	9,13	2,91	8,480
Post-test summed score	29	11,96	2,95	8,731
Difference		2,82	0,04	0,251

Table 3 Pre-test and Post-test Means, Standard Deviations and Variances and their differences

The graph below shows the difference between the Mean and the Standard Deviation of the above table:



Graph 2 Pre-test and Post-test Means, Standard Deviations and Variances and their Differences

Comparison of the Pre-test and Post-test's Mean and Standard Deviation The table (add number table) and graph (2) display the difference of mean, standard deviation, and variance of two the tests. As a result, it presents a considerable difference that is up to an average of (2.82) in learners' scores. Thus, the researcher can conclude that due to the treatment and teaching Reading comprehension through the use of KWL strategy as a teaching tool has indeed bettered the learners' scores in the post-test.

Thus, to confirm this slight difference statistically, one needs to obtain extra descriptive statistics for better consolidation of the results which is the calculation the

T-test.

4.4. T-Test calculation

The t-test seeks to compare two means to discover whether there are statistically significant differences between the two tests or two groups. In our case, a paired means test

is what should be adopted. However, before calculating the T-test, one needs to keep into consideration that the following aspect needs to be accounted too, namely:

- **The Degree of Freedom (df)**

The formula of the degree of freedom appropriate for this t-test is $df=N-1$. After calculating the t-test and degree of freedom, the critical value must be found to verify the hypothesis. For that reason, the table of T distribution of critical values is necessary to be used

- **Alpha Decision Level (α)**

In the current study, the researcher decides to set alpha at $\alpha .05$, which means only a 05% The chance of error can be tolerated.

- **The Critical Value (p)**

Critical values are simply cut-off values that introduce the regions where the test statistic is to be valid and reliable.

- **Hypotheses**

According to Krik (1995, p.26 as cited in Meddour, 2014), the one-group pre-test and post-test design allow for two hypotheses, the alternative and the null hypothesis: The 'null hypothesis' might be: H_0 : There is no statistically significant difference in mean pre- and post-scores and an 'alternative hypothesis' might be: H_1 : There is a statistically significant difference in mean pre- and post-marks. Thus, we used the SPSS as measuring software, and after calculating using the appropriate aspects as stated before, we reached the following conclusions:

4.4.1. Paired sample T-test

Paired Differences				
	Mean	Std. Deviation	Std. Error Mean	95% confidence interval of the difference LOWER
Pair 1 Post-test summed scores- Pre-testsummed scores	2,8275	1,5193	,28214	3,4055

	95% confidence interval of the difference UPPER	t	df	p-value
Pair 1 Post-test summed scores- Pre-test summed scores	2,2496	10,022	28	,000

Table 4 paired samples T-test result

Using the information obtained from table (add table number) we can state the following:

- $t_{obs} = 10,022$

- $df = 28$
- Critical Value (According to Fisher and Yates' table of Critical values): $t_{crit} = 1,70$.

Thus, $t_{crit} < t_{obs}$ ($1,70 < 10,022$)

- $P = ,000 < \alpha = ,05$.

1.1. The Statistical significance

H0: The integration of the KWL strategy in teaching will have no impact on students' pronunciation.

H1: The integration of KWL strategy in teaching will have a positive impact on student's reading comprehension.

The null hypothesis H0 means that there is no statistically significant difference between the means of the group in the pre-test and post-test. However, the alternative hypothesis H1 means that there is a statistically significant difference between the means in the pre-test and post-test.

The t-test was conducted to compare the results of the dependent sample. There are two types of T-test: independent (unpaired) deals with two groups the experimental and control group, however, dependent (paired) deals with one group before and after the treatment. Thus, the most suitable for the present study is the paired group because the same group received the treatment, pre-test, and post-test.

The results in the table above indicate that the observed statistics is higher than the critical value ($t_{obs} > t_{crit}$; $1,70 < 10,022$), thus, the null hypothesis H0 **“The use of the KWL strategy chart in a reading class will not have any effect on student's reading**

comprehension' is to be rejected for that it is not supported at $P < 0.05$ Which means that we are 95% sure that the relationship between the dependent variable (DV) (the post-test scores) and the independent variable (IV) (the KWL strategy treatment) did not occur by chance. However, the alternative H_1 '**If the KWL strategy chart is used in a reading class, students will have better reading comprehension'** is the one to be accepted. This means that there is only a 05% probability that observed mean difference: \bar{x} post $>$ \bar{x} pre (11,96 $>$ 9,13) appeared by chance and 95% probability that are because of the treatment. Thus, confirming the alternative hypothesis supports the substantial claim that the application of KWL strategy as an innovative teaching tool enhances student's reading comprehension skills.

5. Teachers' Questionnaire

This questionnaire is designed to collect data and obtain the different views and attitudes that high school teachers of the English language have toward their students' reading comprehension skills. This questionnaire was administrated to teachers at Mustapha Ben Boulaid, Batna in the academic year: 2019-2020.

5.1. Aim of the teachers' Questionnaire

The teachers' questionnaire sought to collect the necessary data to explore the role of KWL strategy in enhancing students' reading comprehension skills. This questionnaire's main aim is to collect data about student's reading comprehension difficulties and the different types of strategies that teachers use in the reading class. The data collected from the teacher's questionnaire was used to construct the pre-test and post-test of the study. In addition to that, it aimed to draw the teacher's attention and awareness towards the KWL chart as a strategy to improve student's reading comprehension skills.

5.2. Description of the Questionnaire

The questionnaire (see appendix ?) has been administered to all the teacher of English language at Mustapha ben boulaïd high school of Batna to obtain the participants' valuable feedback about the effects of KWL strategy in enhancing student's reading comprehension skills as well as collect data about the different reading comprehension difficulties that student's face in the reading session, and use that data to design a suitable Test for the study.

The distribution of the questionnaire took place a week before the administration of the pre-test which allowed the researcher to use the teacher's answers as a guide to design a suitable test for the students. This questionnaire consisted of seventeen (17) questions that are organized in a logical order and managed in the form of closed-ended and opened ended questions, and it is subdivided into three sections.

The first section is about the background of the Teachers where the researcher aimed at collecting information (general information). It contains two questions (Q1 and Q2) which presented a Teacher's Degree and level of proficiency (Experience in teaching English). Part two (regarding Reading comprehension skills) contains nine questions (from Q3 to Q11) which tackles questions about the reading skill and if students have face difficulties in reading comprehension and what strategies teachers use to cope with student's difficulties of reading comprehension.

Moreover, section three (The effects of background knowledge) includes six questions (from Q12 to Q17) concerning the use of background knowledge in order in enhancing reading comprehension. Teachers were asked to report their opinions about the use of background knowledge and its importance in enhancing student's reading comprehension.

They were also asked if they have used the KWL strategy or any visual graphic organizer in the reading session before.

5.3. Analysis and Interpretation of the questionnaire results

After the questionnaire was administrated to teachers of the English language at Moustapha Ben Boulaid high school, Batna. The researcher collected, organized, analyzed, and then interpreted the data.

Section One: General Information

Q1- Would you specify your degree?

Option	Number	%
BA (License)	4	34%
Master	7	58%
Magister	1	8%
PhD	0	0%
Total	12	100%

Table 5 Teachers' Educational Qualification

As indicated in the table 5 above that the majority of teachers of a rate of (58%) and which represent seven teachers have a Master's degree, and four teachers have their License degree, and only one teacher has a magister degree; however, we have no teacher that holds a doctorate.

Q2- How long have you been teaching English in high school?

Option	Number	%
1 to 5 years	8	67%
5 to 10 years	3	25%
10 to 15 years	1	8%
15 to more	0	0%
Total	12	100%

Table 6 Teachers' Experience

As the table above illustrates that there is a percentage of (67%) of teachers who have a teaching experience of one to five years which represents the majority, and (25%) of teachers whose experience is from five to ten years, while only (8%) of teachers have an experience of 10 to 15 years, and none of the teachers have an experience of more than 15 years; which means that the majority of teachers are a novice and they lack experience in teaching.

Section Two: Reading comprehension skill

Q3- What are the most difficult language learning skill?

Option	Number	%
Reading	2	16 %
Writing	2	17%
Listening	0	0 %
Speaking	0	0 %
Reading+ Writing	3	25 %
Writing + speaking	1	8 %
Reading+ speaking	2	17 %
All of them	2	17 %
Total	12	100%

Table 7 The most difficult language learning skill

In this question, teachers were asked to identify which of the language skill (s) that they thin is most difficult and they had the freedom to choose more than one language skill. The majority of teachers (25 %) have indicated that they think writing and reading skills are

both the hardest language skills. which indicates that the majority of teachers think that Reading and writing skill is the most important and fundamental to learn a language.

Q4- Do you think that reading comprehension skills are extremely important for learning the English language? If yes why?

Option	Number	%
YES	11	92%
NO	1	8%
Total	12	100%

Table 8 Teachers' Attitude towards Reading Skill

The above results indicated that eleven teachers (92%) answered yes when asked whether they think that the reading comprehension skills are extremely important for learning the English language or not which represents the vast majority of the answers. On the other hand, a percentage of (8%) answered with no. That means that most of the teachers believe that reading comprehension skills are crucial to the process of learning the English language.

Justifications of the teachers:

Teachers who answered yes believe that reading comprehension skills are extremely important and crucial for the process of learning the English language because when learners have good reading comprehension skills they become better writers and speakers. In addition to that learn different grammar structures that they will use in their oral and written speech and they gain general knowledge and new vocabulary. Therefore, teachers believe that reading comprehension skills are extremely important for language learners.

Q5- How often do you encourage your students to read in class?

Option	Number	%
Usually	3	25 %
Sometmes	6	50 %
Occasionally	3	25 %
Hardly ever	0	0 %
Total	12	100 %

Table 9 Teacher's encouragement to read

The above results are shown in Table indicated that a majority (50%) of teachers when asked about how often do they encourage their students to read, admitted that they do that sometimes while a percentage of (25 %) percentage of teachers said usually and also (25%) said occasionally while none of the teachers answered with hardly ever which means that learners are not encouraged to read so often.

Q6- Do you think that the time allocated for the reading session is sufficient? and why?

Option	Number	%
YES	2	17%
NO	10	83%
Total	12	100%

Table 10 Teacher's opinion on the duration of the reading session

The table shows that the vast majority of teachers (83%) reported that they find the time allocated to the reading session is not sufficient while only (17%) of the teachers found it sufficient. The result reveals that most teachers do not find the duration of the reading session sufficient.

Justification:

Teachers who answered yes and believed that the time allocated for the reading session is not sufficient said that the duration of the session is never enough for learners to read the text several times and grasp it well and in addition to that do the required activities after reading it. Therefore, they believe that the reading session needs longer sessions for learners to read the text well and comprehend well and do follow-up activities after reading. Some teachers even added that in this situation and the lack of time they found that excellent students do not find the short period of the session a problem and they can comprehend the text and do the required activities while the average and weak students need a lot more time to comprehend.

Moreover, teachers who answered no and believed that the time allocated to the

reading session is sufficient explained that

Q7- How do you find the level of your students concerning reading comprehension skills?

Option	Number	%
Low	3	25 %
Average	6	50 %
Good	2	17 %
Excellent	0	0 %
Total	12	100 %

Table 11 student's level in reading comprehension

The above table shows that most teachers regard their students' reading comprehension skills average (55%) and (27%) of the teachers regard their student's level as weak and (18%) of them stated that their student's level is good; while no one of the teachers has considered his/her pupils' Reading comprehension skills to be excellent. These results illustrate that teachers are consciously aware that their pupils have deficiencies in their reading comprehension skills. And they are encountering serious problems in their writing skills, and this may be because reading is not thoroughly covered by the syllabus.

Q8- What strategies do you use to facilitate teaching reading comprehension?

Option	Number	%
Questioning	1	9%
Summarizing	0	0%
Analyzing text structure	0	0%
Graphic and semantic organizers	0	0%
Visualization	0	0%
Prediction	1	8%
Questioning + prediction	3	25%
Questioning + summarizing	3	25%
Questioning + summarizing + Prediction	2	17%
Questioning+ analyzing text	1	8%

structure		
Questioning + prediction + Graphic and semantic organizers	1	8%
All of them	0	0%
Total	12	100%

Table 12 Strategies that teachers use for reading comprehension

The table and graph above show the results of teachers' answers when asked about the different reading comprehension strategies that they use to facilitate teaching reading comprehension. The vast majority of teachers use a combination of either questioning and summarizing or questioning and prediction and these options represent the majority of (25%) to each option. In addition to that from the table above we can notice that Questioning is a strategy that is paired with most of the strategies that teachers use which indicates that it is the most common and used strategy in the reading session by teachers while the other strategies are used by a few numbers of teachers.

Q9- Do you find your strategies helpful for high school students reading comprehension? And why?

Option	Number	%
YES	3	25 %
NO	9	75 %
Total	12	100%

Table 13 teacher's opinion on the effectiveness of their reading comprehension strategy

Table 13 shows the results of teachers' answers when asked about whether or not their strategy is helpful for high school students' reading comprehension skills. The majority of nine teachers (75%) answered with no and the (25%) answered with yes which reveals that most of the teachers are aware that their strategy is not very helpful and are not satisfied with it.

Justifications of teacher's answers:

Teachers who answered no and believed that their strategy is not very helpful stated that their strategies need some improvements or some modern modification to meet students' needs as well as they believe that their strategies often work with only excellent students; therefore, they need to adopt new effective strategies that are helpful to students with all levels.

Q10- What are the reading comprehension difficulties that students face while reading a text?

Option	Num ber	%
Decoding	1	8%
Vocabulary meaning	0	0%
Activating prior knowledge	0	0%
Language processing	0	0%
Visual reasoning	0	0%
Lack of motivation	2	17%
Decoding + lack of motivation	3	25%
Decoding + language processing + lack of motivation	2	17%
Language processing + activating prior knowledge	1	8%

Decoding + language processing + activating prior knowledge	1	8%
All of them	2	17%
Total	12	100%

Table 14 Reading comprehension difficulties that students

As the above table and graph reveal teachers' answers when asked about which reading comprehension difficulties students face the most in the reading class. The majority of teachers' answers were that students have difficulty in decoding, lack of motivation, and language processing and activating prior knowledge. These options were chosen the most by teachers. This means that teachers have to concentrate on these difficulties the most to enhance student's reading comprehension skills.

Section three: The effect of background knowledge in reading class

Q11- When your students read, do they usually use their background knowledge to comprehend new information?

Option	Number	%
YES	2	17 %
NO	10	83 %
Total	12	100%

Table 15 Students use of background knowledge

As illustrated in the table and graph above. The majority of teacher's answers (83%) when asked if their students use their background knowledge when reading a text they answered no while only (17%) of teachers' answers were yes which means that students have a serious issue with activating their prior knowledge while reading.

Q12- To what extent do you agree that background knowledge can enhance a student's reading comprehension?

Option	Number	%
Strongly agree	4	33%
Agree	6	50%
Neither agree nor disagree	2	17%
Disagree	0	0%
Strongly disagree	0	0%
Total	12	100%

Table 16 Teacher's opinion on the benefits of background knowledge on reading comprehension

The table above shows teachers' opinions when asked to what extent they agree or disagree that background knowledge is beneficial for student's reading comprehension skills. The results show that (50%) of the teachers agree which represents the majority and (33%)

Strongly agree and (17%) answers were neutral and none of the teachers strongly disagreed or disagreed.

Q13- Do you use visual graphic organizers in the reading session?

Option	Number	%
YES	3	25%
NO	9	75%
Total	12	100%

Table 17 Teacher's use of visual graphic organizers

The above table and graph show the results of teachers' answers when asked if they use visual graphic organizers when teaching reading. The vast majority of answers (75%) were no and only (25%) were yes. The next question aims to find out why the majority of teachers do not use visual graphic organizers when teaching reading.

Q14- If no, is it because

Option	Number	%
You are not familiar with it	6	50%
They are time-consuming	4	33%
Your method works well	2	17%
Total	12	100%

Table 18 Reasons why teachers do not use graphic organizers

Q15- Do you think that the KWL strategy chart can enhance pupils reading comprehension skills?

Option	Number	%
YES	10	83 %
NO	2	17 %
Total	12	100 %

Table 19 Teacher' opinion on the KWL strategy

As clearly illustrated on the table, (83%) of teachers believe that the KWL strategy is an effective strategy for reading comprehension while a minority of (17%) thought the opposite.

Q16- Would you like to use it in your reading class?

Option	Number	%
YES	10	83 %
NO	2	17 %
Total	12	100 %

Table 20 Teachers' opinion on using the KWL strategy in their classrooms

The above table shows the results of the teacher's opinion when asked if they would like to use the KWL strategy in their reading class as a new tool to enhance student's reading comprehension skills. The vast majority of teachers (83%) said yes and a minority of (17%) said no which indicates that most teachers are open to using new effective strategies in their classroom to achieve better results and enhance their students' reading comprehension skills and their reading habits in general.

5.4. Discussion of the results

The main purpose of this study is to investigate the effect of using KWL (know, want, learn) to enhance student's reading comprehension skills. It sought to decrease a phenomenon

that most EFL learners face which is the lack of reading comprehension skills. For that, the KWL strategy chart was applied as a reading comprehension strategy in the current study to improve learners' reading comprehension skills. The findings of this study which have been drawn from the analysis of the two data gathering tools were positive in many aspects. These findings are discussed in the form of answers to the research questions of this study.

After the data have been gathered and analyzed through the use of quasi-experiment, and the teachers' questionnaire, the research questions have been answered and the two hypotheses have been verified. Thus, the first question which is what are the difficulties that EFL learners face in reading comprehension was answered by teachers with a common answer which is decoding, background knowledge, and lack of motivation. According to English language teachers, learners have weak reading comprehension skills due to having a difficulty in decoding meaning, activating their prior knowledge, and generally they are not very motivated to read.

Additionally, the second question is how can teachers use KWL art to teach reading to improve reading comprehension is answered through the KWL procedures and treatment instructions that were delivered and explained to teachers and students. To apply the KWL in a reading session, teachers need to know the following steps: first, the teacher introduces the KWL strategy chart for the students and explains that each column serves. Second, s/he explains how students should fill the columns. Third, s/he guides students through the process and helps with any difficulty they face. Finally, learners present their final work and share it with the whole class. Teachers can also do the KWL activity in a form of pair work or group work or even individually, the outcome of using the KWL strategy is rich ideas, active engagement from students, and better comprehension.

Furthermore, the last question is to what extent can the KWL chart help in enhancing EFL learners reading comprehension skills. It is deduced that through learners' performance in the treatment, students were active and engaged more than they did in the usual reading session (according to their teacher). Also, the KWL strategy chart has positively affected second-year high school students' performance and we see that in their scores improvement in the post-test compared to the pre-test. Consequently, the results of the study indicate that there was an improvement in students' reading comprehension skills through the use of the KWL strategy.

Consequently, the results of the study confirmed the alternative hypothesis '**If the KWL strategy chart is used in a reading class, students will have better reading comprehension skills**'. Then, the results of the study indicate that there was an improvement of learners' reading comprehension through the use of KWL strategy. In addition to that many other studies confirmed this study, such as, Hamdan (2014) who used the KWL strategy on tenth graders of Jordanian male students and found that this method is effective in enhancing student's reading comprehension skills and summarizing skills. His research recommended that the strategy should be included in the English curriculum of Jordanian schools.

Conclusion

Through this chapter, the data obtained were analyzed and discussed. We have used two data gathering tools; namely, a teachers' questionnaire and a quasi-experiment (pre/post-test). Additionally, the results of the teachers' questionnaire were descriptively analyzed and interpreted; second, the findings of the quasi-experiment were analyzed through descriptive statistics and inferential statistics in tables and graphs. Finally, the chapter ends with a

discussion of the study results and answers to the research questions and research hypotheses. Thus, the findings of the study revealed that the alternative hypothesis is accepted because the t -value was greater than the critical value, however; the null hypothesis is rejected. Thus, the researcher can deduce that teaching reading through the KWL strategy is a helpful way for enhancing reading comprehension skills.

**GENERAL CONCLUSION,
LIMITATIONS,
AND RECOMMENDATIONS**

Limitation of the study

Although the present study provides convincing evidence that the KWL strategy has a positive effect on learners' reading comprehension, there are several limitations to be addressed. The first limitation is that a one hour for each treatment session was not enough to deal with the whole lesson plan carefully so the researcher had to act fast and waste no time to do all the required activities with students, and it was better for the session to be carried out for longer time. The second limitation was that the research was conducted only with one group because of time limits which were supposed to be with two groups or more. Thus, one sample may not represent the whole population. Another limitation is that in this study, there are twenty-nine (29) students, who were exposed to the treatment; therefore, working with a small group does not allow us to generalize our findings. Moreover, participants did not take the tests seriously and tried to copy each other's answers and that is because they knew that this is not an official academic test.

Moreover, the most important reason is that this quasi-experiment was carried out in a very short duration. The researcher planned to administrate a questionnaire for the students to investigate their attitude towards the KWL strategy after dealing with it on the treatment sessions and it got canceled because of the quarantine of the covid-19 , so there was no way to get in touch with participants from the treatment. Finally, since the study was confined to only one group of Mustapha Ben Boulaid high school students at Batna the findings of the study may not be generalized to represent all the Algerian schools or elsewhere. Moreover, the lack of references; especially, references concerned with the KWL strategy was an obstacle.

Recommendations

- Teachers should be aware of the vital role that reading comprehension plays in education as well as they should be aware of the source of student's difficulties in reading comprehension and apply new suitable methods to overcome those difficulties.
- Since reading comprehension is considered a very important aspect of learning the English language; teachers must select the most helpful strategy that will help students comprehend more, actively engage in the session, and increases their motivation to read.
- Teachers and learners should consider applying the KWL in their classrooms, yet with appropriate adjustments that suit their learning/teaching purposes.
- Learners and teachers must be aware that through reading comprehension, they will be able to master speaking and writing skills.
- The KWL strategy chart is recommended as an important reading comprehension teaching strategy; It not only enhances students' reading comprehension skills but also is an enjoyable activity that makes students be actively involved and engage more in the classroom compared to the traditional activities that are often involved around the questioning method.
- For teachers, the KWL chart creates a competitive atmosphere in the class, and it motivates learners to activate their prior knowledge about the reading subject and share their ideas with classmates and the teacher.
- Teachers must be aware that choosing the right text is an important process; it requires that various factors to be considered. Texts should be selected in accordance with the

interests of the students. In this way, it is more likely to prevent students' loss of motivation. In addition, the KWL strategy works best with expository texts.

- Teachers should be aware that the KWL strategy chart fits most of the learners' styles and learners at all levels from kindergarten to university and it is not excluded from only one level.
- For further research, future researchers are urged to consider other difficulties that learners may face in reading comprehension such as the psychological factors.
- From the treatment we have noticed that many teachers have multiple great ideas to put in the KWL chart; however, they find a huge difficulty expressing them into sentences; therefore teachers must guide students' through the entire activity.

General conclusion

Reading is a fundamental creative skill; consequently, our case study tried to shed the light on the role of teaching vocabulary to improve EFL learner's reading comprehension skills. The current study aimed at exploring the workability and effectiveness of the KWL as a teaching strategy for second-year high school students at Batna. **This study is an attempt to contribute to the research that has been done in this subject**; therefore, To test the hypothesis that the KWL strategy may be useful for second-year high school students' reading comprehension skills, a quasi-experiment is carried out in a one group pre-test – post-test (N=29). Besides, a questionnaire for teachers (N=12) was administered to gather more data about students' difficulties in reading comprehension and sought to investigate teachers' attitudes towards the KWL strategy as a teaching method for reading comprehension.

The current dissertation consists of two main chapters: Literature review and research methods and results discussion. The former summarizes the main previous research findings of both the reading comprehension skills and the KWL strategy chart. On the other hand, the later comprises of the research methods used in this study and reports the results obtained from the t-test, the questionnaire, the interview, and the discussion of those results as well. Following the two chapters, the researcher has provided both the teachers and students with recommendations that may contribute to the improvement of students' reading comprehension skills and academic achievement.

The results obtained from the t-test show a significant difference between the academic achievements of students after being exposed to the KWL strategy in the reading session. Therefore, the alternative hypothesis is confirmed. Additionally, the analysis of the teacher's questionnaire indicates that students have major difficulties in reading comprehension and that is due to the lack of diversity in the teaching methods that teachers use in the reading session. Furthermore, as an overall conclusion, this thesis proves the positive effect of using the KWL strategy chart as a teaching tool to enhance students' reading comprehension skills, and ultimately enhance the level of their academic achievement.

References

- Alashry, S. A. A. N., Qoura, A. A. S., & Gohar, R. H. A. A. (2019). The Impact of the Frayer Model and Contextual Redefinition strategy on Improving Preparatory Stage Pupils' Vocabulary Learning. *Journal of Research in Curriculum Instruction and Educational Technology*, 4(4),11-36.Retrievedfrom https://jrciet.journals.ekb.eg/article_31954_214dbc77c2c4f69523e12815eebed3b5.pdf
- Alderson, J. C. (2005). *Assessing reading*. Cambridge: University Press. Retrieved from <https://doi.org/10.1017/CBO9780511732935>
- Al-Jarrah, H., & Binti Ismail, N. S. (2018). Reading comprehension strategies among EFL learners in higher learning institutions. *International Journal of English Linguistics*, 8(7). Retrieved from <https://doi.org/10.5539/ijel.v8n7p32>
- Almutairi, N. R. (2018). *Effective reading strategies for increasing the reading comprehension level of third-grade students with learning disabilities* (Master's thesis, Western Michigan University). Retrieved from <https://scholarworks.wmich.edu/dissertations/3247>
- Anderson, R. C., & Pearson, P. D. (1984). A schema-theoretic view of basic processes in reading comprehension. *Interactive Approaches to Second Language Reading*, 37-55. DOI:10.1017/cbo9781139524513.007
- Atiya & Ibrahim Saleh Mohammad (2008). The effectiveness of (KWLA) and (think-pair-Share) strategies in the teaching of mathematical communication on creativity

- development of the primary school pupils. *Journal of the Faculty of Education*, 76 (18). Retrieved from <https://doi: 10.19044/esj.2017.v13n1p276>
- Baker, L., & Brown, A. L. (1984). *Metacognitive skills and reading*. In P. D. Pearson, R. Barr, M. L. Kamil and P. Mosenthal (Eds.), *Handbook of Reading Research*. New York: Longman. Retrieved from <http://www.culi.chula.ac.th/Publicationsonline/files/article/AxHoMV4qQtThu34445.pdf>
- Bakke, M. H. (2010). *Teaching Reading in EFL-Instruction and How is it Taught in Class?*. (Master's thesis, University of Oslo, Norway). Retrieved from: <https://www.duo.uio.no/bitstream/handle/10852/32416/MasteroppgavexixEngelskdida ktikkxxMargrethexH.xBakke.pdf?sequence=2&isAllowed=y>
- Bekhelef, M. (2018). *Promoting EFL Learners' Vocabulary Retention through the Frayer Model A Case Study of Second Year Middle School Pupils of Helimi Rachid Biskra* (Master's thesis, University of Biskra, Biskra, Algeria). Retrieved from <http://archives.univ-biskra.dz/bitstream/123456789/15196/1/Investigating%20The%20Effect%20of%20Animated%20Cartoons%20as%20a.pdf>
- Bernhardt, E. (2005). Progress and procrastination in second language reading. *Annual Review*
- Bromley, K. D., Irwin-DeVitis, L., & Modlo, M. (1999). *Graphic organizers: Visual strategies for active learning*.

- Brown, C. M. (1998). L2 reading: An update on relevant L1 research. *Foreign Language Annals*, 31(2), 191-202. DOI:10.1111/j.1944-9720.1998.tb00567.x
- Brummer, T., & Macceca, S. (2008). *Reading strategies for mathematics* (2nd ed.). Retrieved from <http://gen.lib.rus.ec/book/index.php?md5=613ce4dbec518f6bfe5d90a108c9f03a>
- Burchiellaro, L. G. (2013). *Learning how to read in English as a foreign language: issues in Italian secondary school teaching and the role of strategy instruction* (Doctoral dissertation, University of Padua, Padua, Italy). Retrieved from <http://tesi.cab.unipd.it/43469/1/gloria.burchiellaro.pdf>
- Carr, E. and Ogle, D. (1987) KWL Plus: A Strategy for Comprehension and Summarization. *Journal of Reading*, 30, 636-631 Retrieved from [https://www.scirp.org/\(S\(351jmbntvnsjt1aadkposzje\)\)/reference/ReferencesPapers.aspx?ReferenceID=1850874](https://www.scirp.org/(S(351jmbntvnsjt1aadkposzje))/reference/ReferencesPapers.aspx?ReferenceID=1850874)
- Chard, D., Vaughn, S., & Tyler, B. (2002). A synthesis of research on effective interventions for building reading fluency with elementary students with learning disabilities. *Journal of Learning Disabilities*, 35, 386–406 Retrieved from DOI: 10.1177/00222194020350050101.
- Chisamba, C. M. (2014). *The Teaching of Reading in Inclusive Classrooms: A Case Study of Regular Teachers' Instructional Strategies in Teaching Reading Comprehension to Standard Four Learners in Malawi* (Master's thesis, University of Oslo, Oslo, Norway). Retrieved from <http://urn.nb.no/URN:NBN:no-44887>
- Cleveland, M. (2005). *Content- Area Graphic Organizers: Language Arts*. Retrieved from <http://355f5fff485fd0bd834f->

ee8d35f23e0ceb27c81bace1301421dd.r93.cf1.rackcdn.com/ebooks/EREM%20WAL49509.pdf

Davoudi, M., & Moghadam, H. R. (2015). Critical review of the models of reading comprehension with a focus on situation models. *International Journal of Linguistics*, 7(5), 172. Retrieved from: DOI:10.5296/ijl.v7i5.8357

Dörnyei, Z. (2007). *Research methods in applied linguistics*. Oxford: Oxford University Press.

Elisa, L. (2017). *Modifying Model of Teaching Reading by Using KWL (Know, Want, Learned) Strategy in College and Analyzing Student's Reading Habit to Improve Their Reading Ability* (Master's thesis, Lampung, Lampung, Indonesia). Retrieved from <http://digilib.unila.ac.id/27930/2/A%20THESIS%20TANPA%20BAB%20PEMBAH%20ASAN.pdf>

Englert, C. S., & Hiebert, E. H. (1984). Children's developing awareness of text structures in expository materials. *Journal of Educational Psychology*, 76(1), 65-74. DOI:10.1037/0022-0663.76.1.65

Eskey, D. E. (1986). Theoretical foundations. In F. Dublin, D. E. Eskey, & W. Grabe (Eds.), *Teaching second language reading for academic purposes*. (pp. 3-23). Reading:

Gass, S.M, & Mackey, A. (2016). *Second language research: Methodology and design* (2 nd ed).London: Routledge

Gersten, R., Fuchs, L. S., Williams, J. P., & Baker, S. (2001). *Teaching Reading Comprehension Strategies to Students With Learning Disabilities: A Review of*

- Research. *Review of Educational Research*, 71(2), 279–320. Retrieved from DOI:10.3102/00346543071002279
- Goodman, K. S. (1967). Reading: A psycholinguistic guessing game. *Journal of the Reading Specialist*, 6(4), 126-135. DOI:10.1080/19388076709556976
- Grabe, W. (2009). *Reading in a second language: Moving from theory to practice*. Retrieved from <https://doi.org/10.1017/CBO9781139150484>
- Grabe, W., & Stoller, F. L. (2002). *Teaching and researching reading* (2nd ed.). Retrieved from <https://doi.org/10.4324/9781315833743>
- Graham, L., & Bellert, A. (2005). Reading comprehension difficulties experienced by students with learning disabilities. *Australian Journal of Learning Disabilities*, 10(2), 71-78. Retrieved from DOI:10.1080/19404150509546791
- Hamilton, G. (2005). *Content-Area Graphic Organizers*. Retrieved from <https://www.walch.com/samplepages/066372.pdf>
- Hudson, T. (2001). Teaching Second Language Reading. *Oxford University Press*, 63(1), 89–91. Retrieved from <https://doi.org/10.1093/elt/ccn061>
- Hudson, T. (2007). Teaching Second Language Reading. *Oxford University Press*, 63(1), 89–91. Retrieved from <https://doi.org/10.1093/elt/ccn061>
- Jones, C. J. (2007). CBA s that works: Assessing students' math content-reading levels. *Teaching Exceptional Children*, 34(1), 24-28. Retrieved from <https://doi.org/10.1177/004005990103400103>

- KHAOKAEW, B. (2012). *An investigation of explicit strategy instruction on EFL reading of undergraduate English majors in Thailand* (Doctoral dissertation, University of Bedfordshire, Italy).
http://www.journal.kmutnb.ac.th/web_old/journal/45141255313293.pdf
- Koda, K. (2007). Reading and language learning: Crosslinguistic constraints on second language reading development. *Language Learning*, 57, 1-44. Retrieved from DOI:10.1111/0023-8333.101997010-i1
- LaBerge, D., & Samuels, S. J. (1974). Toward a theory of automatic information processing in reading. *Cognitive Psychology*, 6(2), 293–323. [https://doi.org/10.1016/0010-0285\(74\)90015-2](https://doi.org/10.1016/0010-0285(74)90015-2)
- McKnight, K. S. (2010). *The teacher's big book of graphic organizers: 100 reproducible organizers that help kids with reading, writing, and the content areas*. Retrieved from <http://gen.lib.rus.ec/book/index.phpmd5=6975a095889a8895e934656e9b7d1e5d>
- McNamara, D. S., & Kintsch, W. (1996). Learning from texts: Effects of prior knowledge and text coherence. *Discourse Processes*, 22(3), 247–288. Retrieved from <https://doi:10.1080/01638539609544975>
- Meddour, M. (2014). Integrating web-based teaching in ESP: A case study of computer science students (doctoral dissertation, the University of Biskra). Retrieved from: http://thesis.univ-biskra.dz/1338/1/Ang_d2_2015.pdf
- Meniado, J. C. (2016). Metacognitive Reading Strategies, Motivation, and Reading Comprehension Performance of Saudi EFL Students. *English Language Teaching*, 9(3), 117-129. Retrieved from: <http://dx.doi.org/10.5539/elt.v9n3p117>

Ningsih, S. (2017). *IMPROVING THE STUDENTS' ABILITY IN READING COMPREHENSION OF NARRATIVE TEXT THROUGH QUESTION ANSWER RELATIONSHIP AT THE TENTH GRADE OF MAN BINJAI* (Master's thesis, UNIVERSITY OF NORTH SUMATERA MEDAN, Medan, Indonesia). Retrieved from <http://repository.uinsu.ac.id/2611/1/pdf.pdf>

of Applied Linguistics, 25, 133-150. [https:// DOI:10.1017/s0267190505000073](https://doi.org/10.1017/s0267190505000073)

Ogle, D. M. (1986). K-W-L: A teaching model that develops active reading of expository text. *The Reading Teacher*, 39(6), 564-570. Retrieved from [https://doi:10.1598/rt.39.6.11](https://doi.org/10.1598/rt.39.6.11)

Perfetti, C., & Stafura, J. (2014) Word Knowledge in a Theory of Reading Comprehension. *Scientific Studies of Reading*, 18:1, 22-37, DOI: 10.1080/10888438.2013.827687

Piaget, J. (1974). *The thought and language of the child* (M. Gabain, Trans.). New York: New American Library. Retrieved from https://reflexus.org/wp-content/uploads/Language_and_Thought_in_the_Child-Piaget.pdf

Pourhosein Gilakjani, A., & Sabouri, N. B. (2016). A study of factors affecting EFL learners' reading comprehension skill and the strategies for improvement. *International Journal of English Linguistics*, 6(5), 180. DOI:10.5539/ijel.v6n5p180

Qian, D. D. (2002). Investigating the relationship between vocabulary knowledge and academic reading performance: An assessment perspective. *Language Learning*, 52(3), 513-536. DOI:10.1111/1467-9922.00193

Rahim, A. R. M. A., Abdelwahbab, A. I., & Rahim, M. A. A. (2017) *The Impact of KWL Strategy in Developing Palestinian Eleventh Graders' Reading Comprehension and*

- their Attitudes Towards Learning English Language.* (Al-Zaiem Al-Azhari University, Sudan) Retrieved from <https://www.ptcdb.edu.ps/site/sjournal/wp-content/uploads/sites/8/2019/01/20.pdf>
- Rahmasari, B. S., & Amumpuni, R. S. (2014). Applying Know–Want–Learn (KWL) Strategy on Teaching Reading Comprehension. *English Teaching Journal: A Journal of English Literature, Language and Education*, 2(1). Retrieved from [https://doi: http://doi.org/10.25273/etj.v2i1.723](https://doi.org/10.25273/etj.v2i1.723)
- Rahmasari, B. S., & Amumpuni, R. S. (2014). Applying Know–Want–Learn (KWL) Strategy on Teaching Reading Comprehension. *English Teaching Journal: A Journal of English Literature, Language and Education*, 2(1). Retrieved from <file:///C:/Users/MERWA/Downloads/723-1318-1-SM.pdf>
- Richards, J. C., & Schmidt, R. W. (2002). *Longman dictionary of language teaching and applied linguistics* (4th ed.). Retrieved from <https://doi.org/10.4324/9781315833835>
- Rumelhart, D. E. (1977). Toward an interactive model of reading. *Theoretical Models and Processes of Reading*, 1149-1179. DOI:10.1598/0872075028.41
- Sáenz, L. M., & Fuchs, L. S. (2002). Examining the reading difficulty of secondary students with learning disabilities. *Remedial and Special Education*, 23(1), 31-41. DOI:10.1177/074193250202300105
- Scott G. Paris, Barbara A. Wasik, Julianne C. Turner. 07 Mar 2016, *The Development of Strategic Readers from Handbook of Reading Research* Routledge. Retrieved from <https://doi:10.4324/9780203447772.ch22>

- Scott, K. A. (2008). The effects of three instructional methods on the reading comprehension and content acquisition of novice readers. *Journal of Literacy Research*, 40(3), 359-393. Retrieved from <https://doi:10.1080/10862960802520594>
- Shelly, A. C., Bridwell, B., Hyder, L., Ledford, N., & Patterson, P. (1997). Revisiting the KWL: What we Knew; What we Wanted to Know; What we Learned. *Reading Horizons: A Journal of Literacy and Language Arts*, 37(3), 5. Retrieved from
- Smith, F. (2004). Understanding reading: A psycholinguistic analysis of reading and learning to read. Retrieved from [https:// DOI:10.2307/412483](https://DOI:10.2307/412483)
- Snow, C. (2002). *Reading for understanding: Toward an R&D program in reading comprehension*. Rand Corporation. Retrieved from https://www.rand.org/pubs/monograph_reports/MR1465.html
- Stowe, M.,(2015). *Graphic Organizers: Guiding Principles and Effective Practices Considerations Packet*. Retrieved from <https://education.wm.edu/centers/ttac/documents/packets/graphicorganizers.pdf>
- Tierney, R. J. (1982). Essential considerations for developing basic reading comprehension skills. *School Psychology Review* 11(3), pp. 299–305. Retrieved from <https://doi.org/10.1080/02796015.1982.12084978>
- Trabasso, T., & Bouchard, E. (2002). *Teaching Readers How to Comprehend Text Strategically*. In C.C. Block & M. Pressley (Eds.), *Comprehension Instruction: Research-Based Best Practices*. New York: Guilford. Retrieved from: <http://www.cori.umd.edu/research-publications/2004-guthrie-wigfield-et-al.pdf>

- Trehearne, M. P., & Doctorow, R. (2005). Reading Comprehension: Strategies That Work. *Comprehensive Literacy Resource: Grade 3-6* (Chapter 2). Retrieved from https://www.hand2mind.com/pdf/miriam/ch2_clr3_6.pdf
- UZUNÇAKMAK, P. (2005). *SUCCESSFUL AND UNSUCCESSFUL READERS' USE OF READING STRATEGIES* (Master's thesis, Bilkent University, Ankara, Turkey). Retrieved from <http://www.celea.org.cn/pastversion/lw/pdf/marong.pdf>
- Vaughn, S. R., & Bos, C. S. (2015). *Strategies for teaching students with learning and behavior problems* (9th ed.). Retrieved from <https://eric.ed.gov/?id=ED468983>
- Vygotsky, L. S. (1962). *Thought and Word*. In L. Vygotsky & E. Hanfmann, G. Vakar (Eds.), *Studies in communication. Thought and language* (p. 119–153). MIT Press. <https://doi.org/10.1037/11193-007>
- Wijaya, H. (2015). *USING KWL STRATEGY TO IMPROVE THE READING COMPREHENSION SKILLS ON HORTATORY EXPOSITION TEXTS* (Master's thesis, University of Muhammadiyah Purwokerto, Java, Indonesia). Retrieved from https://www.academia.edu/13305224/USING_KWL_STRATEGY_TO_IMPROVE_THE_READING_COMPREHENSION_SKILLS_ON_HORTAT
- Youniss, M. M. A. (2013). *The effectiveness of using (KWL) strategy on developing reading comprehension skills for the eighth graders in Khanyounis Governorate Schools*. (Master's thesis, University of Al-Azhar, Gaza, Palestine). Retrieved from <file:///C:/Users/MERWA/Downloads/Master%20Mominah%20Mahmmoud%20Abu%20Youniss.pdf>

Appendices

Appendix A. Approval letter

الجمهورية الجزائرية الديمقراطية الشعبية
وزارة التعليم العالي و البحث العلمي



كلية الآداب و اللغات
قسم الآداب و اللغات الأجنبية
رقم : 15/35038812 ش.ا/ 2019
شعبة الانجليزية

إلى السيد: مدير ثانوية مصطفى بن بولعيد -باتنة-

الموضوع : طلب تصريح لإجراء تربص

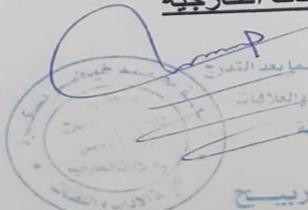
يشرفني أن ألتمس من سيادتكم تمكين الطالب (ة): درنوني أميمة صاحبة رقم التسجيل : 15/35038812 من إجراء تربص مع التلاميذ والأساتذة في مؤسستكم .

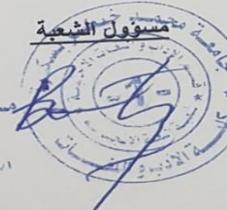
أحيطكم علما سيدي أن هذه الطالبة تدرس لغة إنجليزية في السنة الثانية ماستر بجامعة محمد خيذر ببسكرة وهي بحاجة إلى هذا التربص من أجل بحثها.

وفي إنتظار قبول هذا الطلب ، تقبلو منا سيدي فائق الإحترام وخالص الشكر و الإمتنان.

بسكرة في : 2019/11/14

**نائب العميد المكلف بما بعد التدرج والبحث العلمي
والعلاقات الخارجية**


نائب العميد المكلف بما بعد التدرج
والبحث العلمي والعلاقات
الخارجية
د /عمار ربيع


مسؤول شعبة الانجليزية
ابوبحسبة السبي

Appendix B. Attendance sheet

Class: 2A55

Students names	Students attendance sheet					
	Week 1		Week 2		Week 3	
	S1	S2	S1	S2	S1	S2
بعقيني كريمة	✓	✓	✓	✓	✓	✓
بلحشوف خديجة	✓	✓	✓	✓	✓	✓
بن براهيم هديل	✓	✓	✓	✓	✓	✓
بن حديد قصي	✓	✓	✓	✓	✓	✓
بن علجية شيماء	✓	✓	✓	✓	✓	✓
بن مشيش اسراء	✓	✓	✓	✓	✓	✓
بوقنة صهيب	✓	✓	✓	✓	✓	✓
تومي اكرام	✓		✓		✓	✓
خرنان ايهاب	✓	✓	✓	✓		✓
رحمون نسرين	✓	✓	✓	✓	✓	✓
روايح حمزة	✓	✓	✓	✓	✓	✓
زرقاوي مريم	✓	✓	✓	✓	✓	✓
زكور عبد الرؤوف	✓	✓	✓	✓	✓	✓
سامعي محمد الطاهر	✓	✓	✓	✓	✓	✓
شباح فيصل	✓	✓	✓	✓	✓	✓
شغبان ريان	✓	✓	✓	✓	✓	✓
عموري فارس	✓	✓	✓	✓	✓	✓
غربي معاذ	✓	✓	✓	✓	✓	✓
فروج ابرار	✓	✓	✓		✓	✓
كرشة هالة	✓	✓	✓	✓		✓
مقلاتي أحمد طه	✓	✓	✓			✓
ميهوبي اية	✓	✓	✓			✓
نكاع فدوى بتول	✓	✓	✓	✓	✓	✓
هلال محمد	✓	✓	✓	✓		✓
شموطي دعاء ملاك	✓	✓	✓	✓	✓	✓
جار الله منال	✓	✓	✓	✓	✓	✓
مقديش بتول	✓	✓	✓	✓	✓	✓
بهدي ابراهيم	✓	✓	✓	✓	✓	✓
زرقاوي زينب شيماء	✓	✓	✓	✓	✓	✓

Appendix C. Instruction sheet

Student's FULL name :

Topic :

Date :

Instructions :

- Write down what you already know about the topic in column K (What I know).
- Write down what you want to know about the topic in the W column (what I want to know).
- Write down what you have learned from the topic after reading the text in the column L (what I have learned).

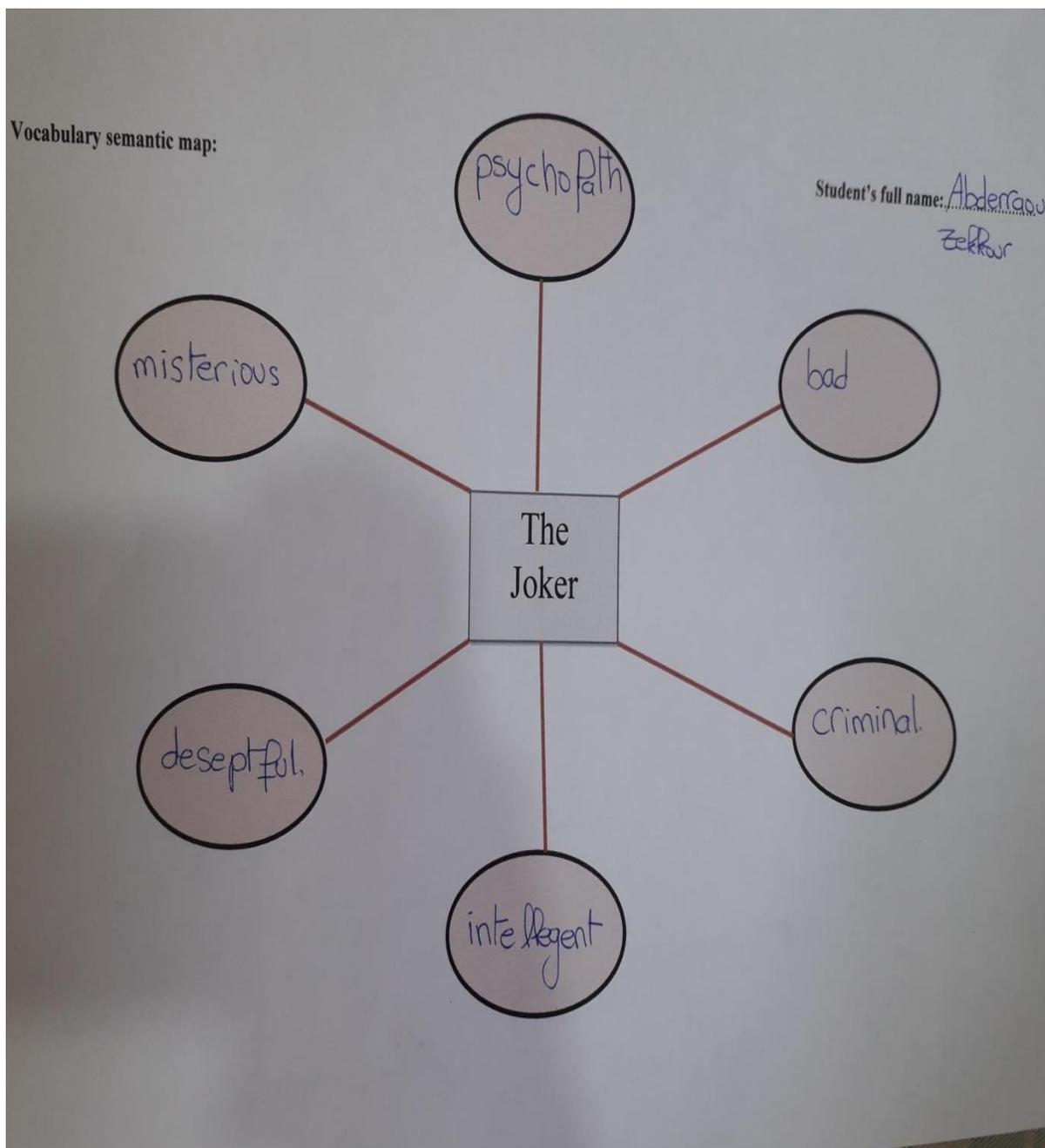
NOTE:

Fill in the first two columns (what I know and what I want to know) prior to reading the text, and the final column (what I have learned) after reading the text several times.

Appendix D. KWL activity sample

K WHAT I KNOW	W WHAT I WANT TO KNOW	L WHAT I HAVE LEARNED
<ul style="list-style-type: none"> - Joker is a dangerous person - He is psychopath - His face like the face of clown - He is an enemy in any film (like Batman film) - He is Joker is man - He is scary for child!! - He is smart and desptful - He acts in horor movies or films - He always uses cards 	<ul style="list-style-type: none"> - is he a person like us or no ? - why is his name is Joker ? - why is his job just for scary ? - why is he a psy copath ? - what is his goal ? - why is his face always like the face of clown ? 	<ul style="list-style-type: none"> - the story of Joker (How was did his face deform) (The most common story involves him falling into a tank of chemical wast that bleaches his skin white and turns his hair green and lips bright red) - He has also fought other heroes including Superman and wonder woman - His debut was in 1940 of comic book batman published by DC comics - He is also play by razor tipped, deadly joy buzzers and acid spating

Appendix E. Vocabulary semantic map activity



Appendix F. Pre-Test**READING COMPREHENSION TEST****Student's full name :**.....**Class :** 2AS5**Time:** 1 hour

The mountain gorilla is one of two subspecies of gorilla. The other subspecies, the lowland gorilla, is the species found in zoos. The names of the two subspecies reflect their habitat: lowland gorillas live in the lowland forests, while mountain gorillas live in high hills, 10,000 feet or higher on the slopes of volcanoes. Their food plants grow extensively in the cool, moist mountain climate of their range in Rwanda, Zaire, and Uganda.

Gorillas live in family troops led by the largest male, called the silverback because of the beautiful silver fur on his back. They are fiercely protective of their young and will defend them literally to death. Beginning early in the 20th century, collectors and hunters from Europe and the United States began to capture or kill mountain gorillas. In 25 years over 50 mountain gorillas were taken as memorials or for collections.

Poachers set out snares to capture animals for food, and gorillas were caught in the snares. The gorillas also were killed intentionally for their meat and parts; gorilla hands and heads were sold as souvenirs to tourists. In addition to being killed and captured, the gorillas have lost large amounts of habitat to agriculture. The countries in which they live have some of the highest human population crowdedness in the world. Every acre that is not protected is farmed. In 1968, 40 percent of the remaining forest was turned over to a European-sponsored agricultural scheme.

Dian Fossey, the American zoologist known throughout the world from the movie "Gorillas in the Mist," is credited with the first successful anti hunting efforts in the gorillas' park. Beginning in 1963, she and her staff regularly patrolled the forest and removed snares set to capture the gorillas and other animals.

Although gorillas were not the poacher's main targets, snares often trapped gorillas and they lost a hand or a foot to infection. Fossey's efforts were too successful for her own personal safety, and she made the ultimate sacrifice 20 years after her work began: she was murdered in 1985, most likely by the poachers.

The future of mountain gorillas depends on whether a stable government can be restored and maintained in Rwanda, and whether the country can house and feed its refugees without destroying the park.

(Kasnoff,2019)

► Circle the correct answer from a, b, or c (20marks)

1. Choose the most appropriate title for the text:
 - a. Jeopardy of gorilla hunters
 - b. The endangered life of mountain gorillas
 - c. Mountain gorillas.
2. We can understand from the text that mountain gorillas are:
 - a. Being slaughtered
 - b. Taken forcefully to the zoo
 - c. Being tortured to death
3. Mountain Gorillas are often found in.....
 - a. The forest
 - b. The zoo
 - c. Mountain
4. The gorilla troop captain is.....
 - a. The most powerful one in the group
 - b. The oldest one
 - c. The most gigantic
5. The word “snares” in paragraph three means:
 - a. holes
 - b. Traps
 - c. barriers
6. The gorillas have another threat other than hunters which is:
 - a. Lack of food
 - b. Being visited by many tourists
 - c. Their space being invaded.
7. Mountain gorillas live in high.....
 - a. Trees
 - b. elevations
 - c. Rocks
8. A “Troop” is.....
 - a. A gorilla’s leader
 - b. A cave
 - c. A group
9. Dian fossy died because of.....
 - a. An angry gorilla
 - b. Gorilla hunters
 - c. A permanent disease
10. Why were mountain gorilla hunted?
 - a. To be sold and eaten
 - b. To be raised in homes
 - c. To be kept in zoo
11. The countries that gorilla live in have.....
 - a. The highest mountains
 - b. The highest density
 - c. The biggest gorillas
12. Dian Fossey had succeeded with the first anti- hunting campaign.....ago
 - a. Twenty
 - b. sixty five
 - c. Fifty six
13. Humid weather is where gorilla’s food is found. This statement is.....
 - a. True
 - b. False
 - c. Not mentioned
14. The word ‘slopes’ means.....
 - a. Rock mountain
 - b. River side
 - c. Downhill
15. The solution for protecting gorillas is.....
 - a. The balance of the country
 - b. decreasing refugees’ number
 - c. setting new laws to punish hunters

Good Luck

Appendix G. post-test**chess**

Chess is called the game of kings. It has been around for a long time. People have been playing it for over 500 years. Chess is based on an even older game from India. The chess we play today is from Europe.

Chess is a two-player game. One player uses the white pieces. The other uses the White Chess Pieces black pieces. Each piece moves in a special way. One piece is called the king. Each player has one. The players take turns moving their pieces. If a player lands on a piece, he or she takes it. The game ends when a player loses his or her king. There are a few more rules, but those are the basics.

Some people think that chess is more than a game. They think that it makes the mind stronger. Good chess players use their brains. They take their time. They think about what will happen next. These skills are useful in life and in chess. Chess is kind of like a work out for the mind.

You don't always have lots of time to think when playing chess. There is a type of chess with short time limits. It's



called blitz chess. In blitz chess, each player gets ten minutes to use for the whole game. Your clock runs during your turn. You hit the time clock after your move. This stops your clock. It also starts the other player's clock. If you run out of time, you lose. Games of blitz chess are fast-paced.

Chess is not just for people. Computers have been playing chess since the 1970s. At first they did not play well. They made mistakes. As time went on they grew stronger. In 1997, a computer beat the best player in the world for the first time. It was a computer called Deep Blue. Deep Blue was big. It took up a whole room. By 2006 a cell phone could beat the best players in the world. Chess sure has come a long way. Don't you think so?

► Circle the correct answer then answer the three comprehension question.

1. What is the author's purpose in writing the second paragraph?
 - a. To explain the rules of chess
 - b. To compare different types of games
 - c. To talk about game pieces
 - d. To persuade people to play chess
2. Which is not a reason that chess is a good workout for the mind according to the text?
 - a. Good chess players think about what will happen next.
 - b. Good chess players take a lot of risks.
 - c. Good chess players take their time.
 - d. Good chess players use their brains.
3. How long have people been playing chess?
 - a. Over 100 years
 - b. Over 500 years
 - c. Over 1000 years
 - d. Over 5000 years
4. Where did the game that chess is based on come from?
 - a. Europe
 - b. America
 - c. India
 - d. All of these
5. Which best describes the main idea in the fourth paragraph?
 - a. This paragraph argues that players should think less.
 - b. This paragraph explains how blitz chess is played.
 - c. This paragraph explains time clocks work.
 - d. This paragraph describes many different ways to play chess.
6. How does a game of chess end according to the text?
 - a. One player takes all of the other player's pieces.
 - b. One player makes it to the end of the board.
 - c. One player becomes king.
 - d. One player loses his or her king.
7. Which happened first?
 - a. Computers did not play chess well.
 - b. Deep Blue won an important game.

- c. Cell phones got good at playing chess.
- d. Deep Blue took up a whole room.

8. How is blitz chess different from regular chess?

- a. Each player has two kings.
- b. Players are blindfolded.
- c. Players only have ten minutes to play.
- d. Players start from a random position.

9. If it's your turn in blitz chess, what happens when you hit the clock?

- a. Both your clock and the other person's clock keep running.
- b. The other person's clock stops running and yours starts.
- c. Both clocks stop running.
- d. Your clock stops running and the other person's clock begins.

10. When did a computer first beat a strong human player in chess?

- a. 2006
- b. 1997
- c. 1970
- d. 1976

How might playing chess be good for people? Refer to the text in your answer.

.....

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Why might blitz chess be more challenging to play than regular chess? Use text to support your answer.

.....

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How have computer chess programs changed over time? Use the text in your answer.

.....

.....

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.....

.....

Good Luck

Appendix H. Teacher's Questionnaire

**PEOPLE'S DEMOCRATIC REPUBLIC OF ALGERIA
MINISTRY OF HIGHER EDUCATION AND SCIENTIFIC RESEARCH
UNIVERSITY OF MOHAMED KHAIDER BISKRA
FACULTY OF LETTERS AND LITERATURE
DEPAETEMENT OF FOREIGN LANGUAGES
DIVISION OF ENGLISH**

Teacher's Questionnaire

Dear teachers,

We would be so grateful if you could answer the following questionnaire that aims to gather useful information for the accomplishment of a Master's dissertation about 'The Effects of Using the KWL strategy Chart in Enhancing Pupil's Reading Comprehension Skills'. Therefore; you are kindly requested to answer the following questions and be sure that your responses will be anonymous and will be used only for research purposes. Thank you for your collaboration.

Note:

- Graphic organizers are visual representations of knowledge that structures information by arranging important aspects of a concept or topic into a pattern using labels (Broomly, DeVitis & Modlo, 1999).
- K-W-L strategy chart is a graphic organizer that helps students organize information before, during, and after reading. It is used to engage students in a new topic, activate prior knowledge.

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Academic year: **2019/2020**

➤ please tick the option that suits your opinion the most .

Section one: Background information:

1. Degree:

a-License

b- Master

c- Magiste

d-PHD

2. Experience: a-Between 1 and 5 years b-Between 5 and 10 years

c-Between 10 and 15 years d-15 or more

Section two: Reading comprehension:

3. What are the most difficult language skills? You can choose more than one option.

a-Reading b-Writing

c-Listening d-Speaking

4. Do you think that reading comprehension skills are important for learning the English language?

a-Yes b-No

If yes, why?

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.....
.....
.....

5. How often do you encourage your students to read in class?

a-Usually b-Sometimes c-Never

6. Do you think that the time allocated for the reading session is sufficient?

a-Yes b-No

Justify,

.....
.....
.....

7. How do you find the level of your students in reading comprehension?

a- Low b-Average c- Good d-Excellent

8. What strategy do you use to facilitate teaching reading comprehension? ,you can choose more than one option.

a-Questioning b-Summarizing
c-Analyzing text structure d-Graphic and semantic organizers
e-Visualization f-Prediction

9. Do you find your strategy helpful for high school pupil's reading comprehension?

a-Yes b- No

Justify you answer,

.....
.....

10. What are the reading comprehension difficulties that pupil's face while reading a text? You can choose more than one option.

a-Decoding b-Vocabulary meaning
c-Activating prior knowledge d-Language processing
e-Visual reasoning f-Lack of motivation

المخلص

يعتبر إتقان م مهارات الفهم القرائي أساس لتعلم اللغة بنجاح. وبالرغم من ذلك ، يواجه معظم الطلاب صعوبات كبيرة في جميع الاطوار عندما يتعلق الأمر بالفهم القرائي و لذلك هدفت هذه الدراسة إلى التحقق من دور و فعالية استراتيجية (K. W. L) في تنمية مهارات الفهم القرائي. بالإضافة الى ذلك، تسعى هذه الدراسة الى معرفة اراء المعلمين و موقفهم تجاه استخدام (KWL) كاستراتيجية تعليمية لتطوير مهارات الفهم القرائي للتلاميذ ولهذا افترضنا أنه إذا طبقت استراتيجية (KWL) من قبل طلاب اللغة الانجليزية- كلغة اجنبية- يساعدهم على تحسين و تطوير مهارات الفهم القرائي لديهم. فمن اجل تحقيق هذه الاهداف واختبار فرضيات الدراسة, تم بتطبيق المنهج التجريبي على عينة الدراسة المكونة من 29 تلميذ بثنائية مصطفى بن بولعيد بولاية باتنة. أما أدوات الدراسة فكانت عبارة عن استبيان لأساتذة اللغة الانجليزية في الطور الثانوي لجمع البيانات حول وجهات نظر المعلمين حول صعوبات فهم القراءة المختلفة التي يواجهها الطالب في صف القراءة والتحقيق في موقف الأساتذة تجاه تنفيذ أساليب تدريس جديدة مثل استراتيجية (KWL) في فصلهم الدراسي. بالإضافة إلى ذلك، أجريت تجربة على عينة الدراسة و تم اخضاع التلاميذ لاختبار أولي و اختبار نهائي لجمع بيانات حول فعالية استراتيجية (KWL) كأداة تعليمية, بعد ذلك تم تحليل النتائج المكتسبة من هذه الدراسة كميًا ونوعيًا، وتم الكشف عن الأسباب الرئيسية التي تجعل مهارات فهم القراءة ضعيفة عند التلاميذ. تشير النتائج إلى أن استراتيجية (KWL) تساهم في تطوير مهارات المتعلمين في الفهم القرائي من خلال تفعيل المعرفة السابقة. لذلك، تم تأكيد الفرضية البديلة للدراسة، وتم رفض الفرضية الفارغة. ونتيجة لذلك، يوصى باستخدام استراتيجية KWL كأداة تعليمية في حصص القراءة.

الكلمات المفتاحية : استراتيجية (KWL), الفهم القرائي, الانجليزية كلغة اجنبية .

