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Entitled:

The Impact of Strategy Use in Enhancing EFL Learners' Reading Skills

Case Study: First-Year English Students at the University of Dr. Moulay Taher– Saida.

Submitted in Partial Fulfilment of the Requirements for the Doctorate Degree in Didactics of English as a Foreign Language

Submitted by	Supervised by
Mr. Mohamed Raji Medjahed	**Prof. Habib Yahiaoui**

Board of Examiners

Prof. Nawel Mebitil	President	University of Mascara
Prof. Habib Yahiaoui	Supervisor	University of Mascara
Prof. Mohamed Grazib	External Examiner	University of Saida
Dr. Toufik Bouakel	External Examiner	University of Chlef
Dr. Djamila Benchennane	Internal Examiner	University of Mascara
Dr. Saadia Ould Yarrou	Internal Examiner	University of Mascara

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Abstract

The present study seeks to expand on the existing literature on reading strategies by examining and measuring the impact of strategy use on EFL learners' reading performance and skills development. In a descriptive and experimental study using quantitative research methods, first-year EFL students from the University of Dr. Moulay Taher-Saida (84) were selected through convenience and stratified sampling to participate in the present study. The study comprises two main phases. The initial study investigated the reading strategies used by Algerian EFL learners, utilizing the Survey of Reading Strategies (SORS). The findings of the initial study revealed that problem-solving reading strategies were prominently employed by the participants. These insights functioned as the foundation for the subsequent main study. In the main study, the research initially focused on determining Algerian EFL learners' reading proficiency levels using a pre-test. Moreover, proficient readers' (the control group=10) responses to the SORS were examined to identify specific reading strategies that were subsequently applied to less proficient readers (the experimental group=11). The selected reading strategies were then integrated into a Direct Instructional Program, which aimed to measure the impact of the selected set of reading strategies on EFL learners' reading skills over a short period. The impact of these reading strategies was measured through reading activities incorporated in the teaching intervention program, and a post-test assessment. The results of the study demonstrated that the specific reading strategies employed had a notably positive effect on learners' reading proficiency levels within a relatively short timeframe. Additionally, these strategies facilitated the transition from thoughtful reading strategies to spontaneous reading skills, indicating a significant enhancement in learners' reading abilities. This research contributes valuable insights into the effective utilization of reading strategies for EFL learners and underscores their potential to foster reading skill development. However, Future research should contain larger-scale and longer-term studies to gain a deeper understanding of how these strategies offer maintained advantages. Longitudinal experiments can reveal the lasting impact of strategy use on overall reading skills. Also, exploring how reading strategies differ across proficiency levels and age groups may yield beneficial insights for instructors and curriculum designers.

Dedication

Dedicated to my parents' unwavering love and support, The unbreakable

bond with my brothers and sisters, and to every truth seeker.

Acknowledgments

I would like to express my heartfelt thankfulness to **Allah** the almighty for granting me strength, wisdom, and perseverance throughout this doctoral journey.

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This doctoral thesis represents not only my journey but also the communal efforts of all those who have supported, guided, and encouraged me along the way.

List of Abbreviations

CBA: Competency-Based Approach

CFA: Confirmatory Factor Analysis

CFI: Confirmatory Fit Index

EFL: English as a Foreign Language

ESL: English as a Second Language

ELT: English Language Teaching

ELL: English Language Learner

ICML: Interactive Compensatory Model of Learning

MARSI: Metacognitive Awareness of Reading Strategies Inventory

OSORS: Online Survey of Reading Strategies

RMSEA: Root Mean Square Error of Approximation

SORS: Survey of Reading Strategies

SVR: Simple View of Reading

SRMR: Standardized Root Mean Square Residual

TEFL: Teaching English as a Foreign Language

TLI: Tucker Lewis Index

List of Tables

List of Figures

Table of Contents

CHAPTER TWO: EDUCATIONAL CONTEXT, AND RESEARCH METHODOLOGY

Statement of Original Authorship

I, the author of this thesis, hereby declare that the content of this thesis has never been previously submitted to fulfil the requirements for any academic award whatsoever at this or another higher education institution. With the exception of the referenced statements provided, this thesis does not, to the best of my knowledge and belief, include any previously published or written work by another author.

Signature :

Raji Mohamed Medjahed

October 2023

GENERAL INTRODUCTION:

General Introduction

Overview

In the context of Algerian tertiary education, good linguistic skills, particularly in reading, are paramount for students to succeed academically. English operates as a *lingua franca* in higher education and the growing international employment market; consequently, adequate knowledge of the language is important from the standpoint of readying students for adulthood. Bright and McGregor (1970, p. 52) stated, "Where there is little reading, there will be little language learning." Until now, a growing number of studies have been conducted on using reading to help foreign language learners develop language mastery and reading skills. Algerian university students have to spend a great time on reading materials. Nevertheless, students face the issue of not comprehending the selections of what they read. This is reflected in their inferior reading scores. When reading, learners must use different strategies to help them acquire, store, and retrieve information (Singhal, 2011). Hence, reading strategies are considered to be important for students' reading comprehension. Reading strategies provide students with skills on how to handle their reading effectively. In the thick of the overload of variables affiliated with reading strategies and reading skills, this study tries to scrutinize the effect of reading strategies as means to enhance learners' reading skills. This general introduction accentuates the background of this research and plainly displays the study's problem, purpose, objectives, research questions, and hypotheses. It explains this study's research methodology, significance,

limitations, and delimitations. Lastly, the design of the dissertation will be described to direct potential readers through the study's main aspects.

Background to the Study

This area of the general introduction comprises the background of this study, which investigates and measures the distinguishable effects that strategy use has on reading skills and reading comprehension development to highlight the history and focus of this research. Other aspects will be discussed in greater detail in the literature review chapter of this dissertation.

Several empirical studies have confirmed a positive association between reading strategies and reading skills (Block, 1992; Carrell, 1989; Garner, 1987; Olshavsky, 1976-1977; Pressley & Afflerbach, 1995). These researchers discovered that the strategies that readers use when dealing with reading materials play a crucial role in reading skills improvement in the first/second language. Other researchers found that successful readers use more reading strategies than unsuccessful ones (Alsheikh, 2011; Block, 1992; Chamot & El-Dinary, 1999; Lau & Chan, 2003; Lau, 2006; Mokhtari, 2008; Mokhtari & Sheorey, 2008). A study by Küçükoğlu (2013) concluded that students had a noticeable improvement in reading scores when using reading strategies. However, they needed to be tutored about strategy use. Moreover, Gajria. & McAlenney (2020) confirmed that the use of cognitive reading strategies "has been proven effective for increasing reading comprehension". Many categorizations of reading strategies emerged upon two main models (bottom-up and top-down processing) (Goodman, 1967; Gibbson, 1972). Other models such as the interactive and the interactive compensatory model (Stanovich,

1980; Duchant, 1991) later appeared to shape the way reading comprehension and reading strategies function. Accordingly, studies involving reading strategy classifications started emerging. Researchers employed distinct strategy types. The first categorization was introduced by Rubin (1975). He classified them into two main types of strategies: those used to construct the meaning of the text as a framework for understanding, and those used to monitor understanding and take action when necessary. Followed by Ovlshavsky's (1976) classification which contained three main categories (word level, clause level, and story level). Additionally, Block (1986) and Carrell (1989) categorized reading strategies into general or global strategies and local strategies. Whereas local strategies comprise a category of decoding strategies, global strategies are related to the top-down model. Anderson (1991) groups the strategies into five categories: supervising strategies, support strategies, paraphrasing strategies, strategies for establishing coherence in the text, and test-taking strategies. Moreover, Jimenez et al. (1996) classify reading strategies as text-initiated, interactive, and reader-initiated strategies. However, the classification plan that will be employed in the present study is based on Sheorey and Mokhtari's (2001) categorization. Using a cognitive framework, they classified reading strategies into metacognitive, cognitive, and/or support strategies. Many researchers claim that reading strategies are mainly used by "good learners" or "high achievers". The researcher believes that investigating the reading strategies' effects on all learners' reading scores, regardless of their level, reveals to be imperative. This will be analysed with more depth in the literature review section.

Statement of the Research Problem

Reading research has generated several insights concentrating on strategy use impact and, particularly, reading strategies used to enhance and simplify the reading comprehension process (Grabe, 2002; Psaltou-Joycey, 2010). In the late 1970s, research sheds light on the use of reading strategies to improve learners' reading achievement and render them engaged and independent readers. Scilicet, studies on reading strategies deployed by proficient and less proficient readers revealed that proficient readers are active readers with precise goals in mind and generated more reading strategies focusing on text meaning and monitoring comprehension. From this perspective, reading research has strongly linked reading strategy use and reading comprehension enhancement. Many researchers suggested that less proficient readers should be instructed to use reading strategies used by proficient readers. Studies on individual and multiple-strategy instruction have proven that such conducts have great potential to enhance reading comprehension. Nonetheless, Grabe (2009) affirmed that further research on individual and multiple-strategy instruction in L2/FL settings needs to be carried out. From this perspective, reading research has strongly linked reading strategy use and reading comprehension enhancement. Although there has been some empirical evidence of strategy instruction for reading improvement, very few studies have concentrated on university EFL learners. Most relevant studies have been conducted with young learners (elementary and middle school) from diverse educational contexts not concerning Algeria. The English as a foreign language instruction in Algeria is different from that of other countries. Algerian learners only have EFL as a mandatory subject from middle school (1st year) to the last

high school year (3ʳᵈ year). They choose to study EFL with more depth at the university coming with only seven years of EFL proficiency, which is, according to the researcher not enough to master all the language skills, specifically reading. Moreover, concerning the Algerian educational context, no studies were found discussing the impact of strategy use and strategy instruction on enhancing less proficient EFL learners' reading skills. Hence, the researcher identified a gap in research involving strategy use instruction and the impact of reading strategy use on less proficient learners' reading performance at the tertiary level.

Aims and Objectives

The present investigation was conceived to study the impact of reading strategy use on Algerian EFL learners' reading performance. The aims of this research are hence the following:

1. To point out the impact of reading strategies on facilitating the reading process for Algerian EFL learners.

2. To find out about the influence of strategy instruction on less proficient Algerian EFL learners' reading skills.

However, additional objectives emerged and were indistinguishably linked with the study focus, in particular:

1. The initial study aims to investigate and spot the reading strategies used by proficient Algerian EFL learners.

2. The introduction of a new strategy instruction approach that is time efficient and beneficial for under-achieving readers.

3. The examination of the possible transition of reading strategies to reading skills resulting in the enhancement of the latter.

Research Questions

This study tries to explore the possibility of developing learners' reading skills with adequate implementation and analysis of strategy use at the University of Dr Moulay Taher, Saida. Consequently, the researcher has composed five research questions in compliance with the objectives of the study:

1. What are the reading strategies used by Algerian EFL learners?

2. What is the predominant reading proficiency level among 1st-year Algerian EFL students?

3. Are the reading strategies employed by proficient readers in the control group highly effective?

4. Can using specific and effective reading strategies integrated into a teaching intervention benefit less proficient readers?

5. Can effective reading strategies enhance the reading performance of EFL learners and facilitate their transition into reading skills?

Research Hypotheses

Given the topic of this study, the researcher composed the following hypotheses:

H1: According to Mokhtari and Sheory's framework, Algerian EFL students use problem-solving reading strategies.

H2: Reading strategies facilitate the reading process for Algerian proficient readers.

H3: The majority of students in the study sample demonstrate intermediate reading proficiency levels.

H4: Utilizing specific reading strategies as part of a teaching intervention can particularly help less proficient readers

H5: Effective reading strategies can enhance EFL learners reading performance and transition into lifelong reading skills.

Research Design

The present study's methodological framework comprises an experimental research plan to answer the research questions and test the hypotheses. This research employs quantitative research methods to assemble and interpret the data. Therefore, one instrument was used to collect data for the initial study; the SORS (Survey of Reading Strategies) developed by Mokhtari and Sheorey (2002). For the main study, a pre-test and post-test were used to collect data and measure the real impact of strategy use. Moreover, a teaching intervention program called "The Direct Instructional Program" with a selected set of reading strategies used by proficient readers. The program's duration was twelve (12) sessions. The program was introduced to less proficient readers.

Significance of the Study

The present study aspires to refill some L2/FL reading strategy research gaps. More precisely, this study tries to contribute to research on reading strategy use and reading strategy instruction impact on reading skills, because Algerian university EFL learners have not been widely represented in previous literature. More precisely, this study tries to contribute to research on reading strategy use and reading strategy instruction impact on reading skills, because Algerian university EFL learners have not been widely represented in previous literature. Moreover, it adds to the specific research scope by exploring other variables, such as the relationship between students' gender and reading performance. The importance of the results of this research fibs in the significance that the development of reading skills with strategy use is not solely reserved for "good learners". Rather, the less adept readers should also profit from the reading strategies used by their friends via reading strategy instruction. Last but not least, this study provides valuable empirical proof that should be taken into serious consideration for prospective L2/FL reading courses.

Delimitations and Limitations

Each study is not unrestrained from limitations and delimitations set by boundaries, lack of accessibility, and/or overlooking of particular perspectives. The delimitations of this research are as follows:

1- The assumptions of this study cannot be generalized to the rest of higher education institutions, nor can it conclude the findings to learners from different departments at the same institution. Although the sample size is

fairly immense, the outcomes of the studies cannot be extrapolated to other samples in Algeria.

2- The restraints imposed by the Ministry of Education as a protection mechanism against the spread of COVID-19 extremely decreased students' attendance time, which may be a detrimental factor for the integration of the survey and post-test pre-test. Also, this deprived the researcher of using observation to collect defining data on real-time reading strategy use.

3- The lack of reading tendency among Algerian EFL learners, made it difficult for the researcher.

Additionally, this research has several limitations that may have more or less impacted the assumptions of this study. Students had little or no knowledge about reading strategies, which is illustrated by the learners' difficulty in properly choosing from the three presented categories (Mokhtari and Sheory, 2002). Despite the usage of dependable and accurate measures to gather data, this study may have distorted the hypotheses of the study due to the complete reliance on quantitative research methods. In addition, the choice to adopt a new direct strategy of instruction was revealed to be challenging for both, teachers and learners. However, the researcher has attempted to move carefully regarding the speculations made from this study despite the previously mentioned limitations and delimitations.

Structure of the Dissertation

This study is arranged into four chapters, including the general introduction and conclusion. In the general introduction, the research background and

problem, aims and objectives, research questions, hypotheses, significance, limitations, and delimitations of the study have been determined and examined. Henceforth, the first chapter of this research reviewed and discussed the existing literature on reading skills, learning and reading strategies, strategy instruction, and the impact of reading strategies. It also included the definitions of key concepts. The second chapter included a precise characterization of the research methodology adopted in the present study; the population, sample, sampling technique, research measures, data collection, and analysis procedures of the current study are explained. The third chapter indicated the study's outcomes, including students' answers to the measures of the study and the analyses employed to respond to the research questions and test the study's hypotheses. The fourth and final chapter of this research discussed the implications of this research and the association between the dependent and independent variables of the study. Finally, a general conclusion summarized and synthesized the current study's primary results and the pedagogical suggestions for higher education practitioners in the field, and recommended ideas for future research.

Conclusion

This short introduction emphasizes the principal elements of the current study. The significance of the combination of the study variables, to set the stage for the enhancement of reading skills and reading comprehension, was discussed, and a favorable view was highlighted by exploring the probable effect of strategy use and strategy instruction. The aims and objectives, the hypotheses and research questions, and the study's significance and limitations

were also examined. Following the organization of the dissertation design, the researcher has tried to carry out this research to cover all the needed theoretical and empirical elements to meet the requirements of scientific research in education, humanities, and social sciences.

CHAPTER ONE: Literature Review

1.1.Introduction

Reading is essential because it grants entrance to knowledge and information in a consolidated statement, either through print or digital format (Sun, Shieh, & Huang, 2013). Hence, for English language learners, whether learning in an English-speaking country or in a country where English is a foreign language (EFL), reading is regarded to be "an influential and crucial substance for the durable development of the English language ability" (Gorsuch & Taguchi, 2010, p.28). On the other hand, Gorusch et al. (2010) claim that reading stays problematic for many ELLs (English Language Learners), particularly EFL students who have narrowed down input references.

Many researchers claim that learning strategies are effective tools used by learners to overcome obstacles met during their learning process. Likewise, reading strategies are regarded to have a positive impact on learners' reading performance. Therefore, this chapter delivers the academic knowledge adopted in this study for reading comprehension. It was considered essential for a study concentrating on reading strategies to consider the processes implicated in reading comprehension, which can be initiated and accompanied by strategies. In this respect, an attempt is made to characterize reading comprehension and its several procedures so that the links with the concept of reading strategies can be made clear. On top of that, an outline of the most representative models of reading is presented. Also, an overview of research on reading strategies summarizing the conceptual framework of strategies with definitions, problematic cases, classification schemes, and corresponding research, is

provided. Nonetheless, before embarking on discussing reading strategies, a concise account of learning strategies is also provided, as reading strategies are part of learning strategies. The primary aim of this chapter is to deliver pertinent research analyses in an attempt to demonstrate the framework of existing research data, pinpoint gaps in reading literature, and set the foundation upon which the data of the present study will be further examined and scrutinized.

1.2. Defining Reading Skills and Reading Comprehension

Skill: An acquired ability to perform well; proficiency. Note: The term often refers to finely coordinated, complex motor acts that are the result of perceptual-motor learning, such as handwriting, golf, or pottery. However, skill is also used to refer to parts of acts that are primarily intellectual, such as those involved in comprehension or thinking (Hodges, 1999).

Firstly, to perceive the importance of reading as a skill in an EFL context, it is necessary to analyze some reading theories and points of view. Various contradicting views of reading can be used here to demonstrate alterations in theories. The first theory is the SVR (Simple View of Reading). Gough and Tunmer (1986) proposed this theory to "reconcile the reading wars" (Wooldridge, 2022). They stated that reading is "a combination of two distinct components: decoding and linguistic comprehension" (1990. p.128). This theory will be discussed in greater detail in the next sections. Many researchers believe that the capacity to read is an essential cognitive skill in all academic areas (Amer, Barwanti, & Ibrahim, 2010; Lei, Rhinehart, Howard, & Cho,

2010; White, 2004). Harmer (2007) stated that "reading is useful for language acquisition" (p. 99).

Further, Silverman, Speece, and Harring (2013) stated that decoding mainly comprised phonological awareness and orthographic knowledge. According to Hoover and Gough (1990), "linguistic comprehension" relates to deriving descriptions of sentences, paragraphs, and/or whole texts based on word-level denotations. SVR postulates that these are both necessary but not adequate on their own to consider for reading. It intends that learning a text need only knowledge of vocabulary and syntax. Hence, in this pattern, readers passively gain information from the text. According to Dole et al. (1990), "meaning resides in the text itself, and the reader's goal is to reproduce that meaning" (p.240). If a reader can understand the text's words and analyse the text's grammar, then the text's meaning would be manifest.

A way of perceiving the text in this sense is an outcome in which priority is given to the text and parts of the text, with varying attention paid to form alone or the relationship between form and meaning. Knowledge of vocabulary and grammar is predominant in knowing what an author is trying to convey. This position is frequently confronted by other theories of reading, due, in part, to the denial of the oversimplified relation, it provides between linguistic components and meaning, but also because of the assumption that the reader is a passive receiver of meaning. Hence, rather than viewing all meaning within the text, multiple theories assert that reading is a selective process requiring taking leads from available language upon which the reader makes decisions about the text's meaning. Goodman (1967) defines reading as follows:

...reading is a psycholinguistic guessing game. It involves an interaction between thought and language. Efficient reading does not result from precise perception and identification of all elements but from skill in selecting the fewest, most productive cues necessary to produce guesses that are right the first time

(p.127).

Goodman's position, in this insight, has two fundamental references. The first is the reading material in itself. The words and the syntax construct context from which the reader can form meaning. This is not just a concern of the words' meaning and grammatical structures; it concerns the holistic part of the text rather than its tiny fragments. This approach views meaning as something that does not originate from the lexical or grammatical parts but from the whole text. According to Goodman (1967), the second reference of meaning is from the reader who brings the total of his experience, language, and thought development to his reading. The reader combines both linguistic knowledge and background knowledge to achieve comprehension. According to many theorists and researchers, background knowledge is often called "prior knowledge".

The latter theory sees meaning as a mechanism and views reading comprehension as co-constructed to achieve complete mastery. These views are directly linked to two fundamental reading comprehension models: "bottom-up processing and top-down processing". These two concepts are crucial for reading comprehension and a better understanding of reading strategies. They will be discussed in the next sections. Furthermore, reading

can be challenging, especially when the content is unfamiliar, technical, or perplexing. First, teachers need to get a clear understanding of the meaning of reading as a language skill. Clarke and Silberstein (1977) have seen reading as "an active, non-linear process in which readers make and test hypotheses and use world knowledge and linguistic knowledge to determine to mean" (p. 48)

Hence, reading is improved and developed only when the learner reflects on what he is reading. In other words, some learners can decode words, but they do not have sufficient skills or background knowledge to understand the complex and metacognitive aspects of any given text. Furthermore, according to Carrel (1992), a successful learner/reader takes a metacognitive approach. Macaro (2001) states that "good readers attack the text as a holistic problem to be solved by coming at it from different angles" (p.37). Moreover, McNamara (2007) asserts that "reading is an extraordinary achievement when one considers the number of levels and components that must be mastered" (p. 128). This definition confirms that reading comprehension can only be achieved if the reader controls the reading material.

Throughout their educational journey, learners will deal with many digital and paper-written materials. Consequently, to reach successful learning, they must acquire various skills. Two of the most critical skills they must include grasping meaning within written texts and the unified understanding of written texts, also identified as reading comprehension (Schiefele, Shaffner, Möller, and Wigfield, 2012).

Reading is not a statically acquired ability but rather an assortment of skills, attitudes, and knowledge. Learners' skills are improved by utilizing their

knowledge, experiences, and beliefs (Roeschl-Heils, Schneider& van Kraayenoord, 2003). It is influenced by an individual's socio-cultural settings, which play a crucial role in forming students' beliefs, attitudes, and motivation toward reading (Ilustre, 2011). Hence, it can be challenging to build one comprehensive description of reading that captivates all of the dimensions, processes, and variables of the given term. Accordingly, reading comprehension definitions differ from simple comments, such as Williams's (1996) definition, which he sees as "the process of perceiving and understanding written languages" (p. 183).

Moreover, Koda's (2005) definition seems to be more specific and focuses not only on one but more contributing processes; he confirms that: "the comprehension that occurs when the reader extracts and integrates various information from the text and combines it with what is already known" (p. 4). The two definitions differ drastically in terms of meaning and giving attention to small processes that can affect reading comprehension as a more general process. Further, Mansoor Al-Surmi (2011) claimed that "reading comprehension happens when a reader goes through cognitive processing". Widdowson (1979) goes in the same direction as Al Surmi's definition, asserting that reading comprehension is "the process of getting linguistic information via print" (p. 24). Also, Snow (2002) describes reading comprehension as "a process of selecting and building meaning throughout the ongoing engagement of the reader with written texts". In this regard, reading comprehension is a cognitive process that entails the reader's active engagement with the text to produce meaning.

Other definitions highlighted the position of the reader within the reading process. Grabe and Stoller (2013) define reading comprehension as "the capacity to create meaning from text materials and adequately represent the recently obtained information". Zhang (2010) illustrated the reading interaction as a "process of hypothesis building in which readers communicate with text, form predictions, and utilize their prior knowledge to approve or decline their hypothesis about the text" (p. 253).

Moreover, Eskey (2005) claimed that reading comprehension is "an active, deliberate, and productive cognitive process in which the reader builds the meaning of the text based on text information, appropriate previous knowledge, feelings, and opinions that the reader carries with to reading task" (. Accordingly, readers actively get involved in reading by employing several knowledge sources, either linguistic sources (bottom-up processes) or schematic sources (top-down processes) (Alyoussef, 2006). Accordingly, reading comprehension can be defined as the effortful process of searching for and forming meaning for which the reader is engaged. It is a multifaceted activity where motivational elements combine with cognitive and metacognitive processes to influence the comprehension of texts. Nevertheless, Grabe and Stoller (2013) pointed out that "an exact definition of reading comprehension should also incorporate the processes needed to achieve reading". Moreover, they pointed out that fluid reading comprehension should be a fast, practical, interactive, strategic, adaptable, evaluative, and valuable process.

A Different aspect of reading comprehension shows the value of a text's components in the reading process. Accordingly, Bernhardt (1991) stated that "reading comprehension effectively assimilates new incoming data with a reader's prior knowledge". He claimed that it is an interaction between text-based and reader-based elements. In contrast, Zoghi, Mustapha & Maasum (2010) insinuated that text comprehension relies not only on the representation of linguistic symbols but also on utilizing all text characteristics to create a coherent meaning of the text. reading comprehension entails that the readers interact with the text to deduce its meaning and create their comprehension through intercommunication between the reader, the text, and the reading task, strong text comprehension. Besides, these interactions happen in a socio-cultural setting that impacts the reader's engagement and reading purposes. Earlier stated definitions explained that reading comprehension is an intricate process challenging students to commit time and energy to achieve it successfully. It is not solely an activity of text decoding but demands higher-order skills to grasp the meaning of the text. Furthermore, reading occurs through the interaction between multiple cognitive and linguistic abilities. It starts with word identification and ends with the conception of a comprehensible mental description of the text. This process is induced by the student's goal for reading, which can prevent or promote readers' reading commitment and determine the nature of reading strategies that students will use.

However, the reading activity happens in a particular educational and socio-cultural setting, promoting students' beliefs, objectives, hypotheses, and

research. Though these definitions were developed initially to describe reading comprehension in a native language, they can also be employed in Foreign Language/L2 reading. FL/L2 researchers count on theories, teaching techniques, and methods for teaching reading borrowed from L1 reading studies, as the latter has a long history of well-developed research. There are multiple familiar reading features between L1 and L2, and most are associated with language learning cognitive processes. All readers establish goals for their readings, apply reading strategies while reading, use their insufficient storage size of running memory, and use their prior knowledge to make assumptions about texts. On the other hand, there are also many differences between reading in a native language (L1) and reading in a second or foreign language (L2/FL).

1.3. First Language Versus Second Language/Foreign Language Readers

Reading in a second or foreign language is more complex than reading in one's first language since it demands additional requirements. Many FL/L2 researchers have raised the issue of whether reading difficulties faced by foreign language learners are due to reading in itself or instead to problems with the language. Alderson (1984) was one of the first to investigate the matter and claimed that issues endured by foreign language learners are both language problems and reading problems. Additionally, he assured that other learners with low foreign language ability could face other problems. Moreover, comparing L1 reading to L2/FL reading has been extensively investigated, and many models that tried to overexpose the relationship between the two have emerged.

1.3.1. The Linguistic Threshold Hypothesis

The concept of "linguistic threshold" (also called "linguistic ceiling") was first presented by Clarke (1979). A theory implies that the critical constituent in reading activities is language (Bernhardt& Kamil, 1995). Also, it can be defined as "the level at which the correlation between L1 and L2 reading ability advances and the transfer of reading skills happens" (Lee and Schallert, 1997). This hypothesis implies that learners must first have sufficient knowledge of L2 vocabulary and grammar before transferring their previously acquired L1 reading skills.

According to this hypothesis, L2 learners must first reach a certain amount of control over L2, or in other words, mix a critical linguistic threshold, before applying their L1 reading skills to L2 reading. This "certain amount" is also introduced as a "threshold level of linguistic competence" by Cummins (1979). Below this level of linguistic proficiency, it is inconceivable for L1 reading strategies to be transferred to L2 reading. Consequently, good readers' L1 reading skills are perplexing in the direction that these readers regress to poor reader strategies when encountering a challenging task in L2 (Bosser, 1991). Furthermore, Alderson (1984) stated that

Poor foreign language reading is due to reading strategies in the first language not being employed in the foreign language, due to inadequate knowledge of the foreign language. Good first-language readers will read well in the foreign language once they have passed a threshold of foreign language ability (p.4).

This hypothesis claims that L2 reading problems are mainly caused by insufficient L2 linguistic knowledge, which then results in a "short circuit" in L2 reading comprehension skills. Subsequently, even L1 skilful readers may encounter difficulties when reading in L2 if they fail to reach the demanded linguistic threshold. Yamashita (2001) proposed three levels of the linguistic threshold: the fundamental, the minimum, and the maximum level.

Firstly, the fundamental level, L2 knowledge is insufficient and does not explain L2 reading. Further, there is no correlation between L2 instruction and L2 reading proficiency. Secondly, the minimum level of L2 knowledge here starts to contribute to explaining L2 reading. Nevertheless, L1 reading capacity persists incapable of transferring to L2 reading. In the earlier levels, the difference in L2 reading can be illustrated by L2 language ability. Accordingly, when students attain the maximum level, both L2 and L1 language reading abilities contribute to explaining L2 reading. However, no researchers proved the significance of the existence of this level in real situations.

To summarise, earlier research has shown a low to moderate strength relationship between L1 and L2 reading, while other investigations using think-aloud rules have observed strong relationships between the two. The variations in proportions of diversity in L2 reading as illustrated by L1 reading proficiency could be caused by differences in the equivalence of the measures of L1 and L2, the levels of L1 skills at the time of exposure to L2, the age of the learners, or the diverseness of L1 and L2 proficiency levels (Gebauer, Zaunbauer & Möller, 2013). Nevertheless, different researchers considered that L1 reading ability shares standard underlying linguistic proficiency with L2

reading, even at the beginning of L2 learning. This point of view is discussed in the following hypothesis.

1.3.2. The Linguistic Interdependence

The Linguistic Interdependence Hypothesis discusses that L1 linguistic knowledge and skills that a learner owns, operate a contributory position in improving similar capacities in L2, with the association that L1 should be adequately developed before the extended display to L2. Besides, once a set of language processes such as reading and writing is obtained, the same procedures will be available as needed in L2 settings. Additionally, as to reading comprehension, L1 reading skills can be transferred to the L2 reading process. According to this hypothesis, knowledge instruction in one language influences more extraordinary abilities in autonomous conceptualization and cognitive assignments. Accordingly, this expansion is language-dependent and transfers crosswise languages. Bernhardt (1991) proposed that L2 readers do not have to replay the "reading game" when reading in their native language.

Goodman (1970) and Cummins (1981) asserted that literary capabilities, such as the universal ability to read and write, once learned, can be relevant in an L2 context. Cummins (1981) claimed that specific language skills could be alienated and contribute to expanding a different language. Moreover, Cummins refused the separation between L1 and L2 language abilities, illustrating that considering the two languages as divided results in the hypothesis that understanding one language prevents the development of the other, an incorrect concept. He pictured our brain's available substance for language as a balloon. This substance is shared between two languages, and

only one balloon is destroyed, leading to a decrease in the available substance for the second language. For the two languages to expand accurately, this space for literacy development should not be separated.

Consequently, L2 learners can profit from proficiency in one or both languages. Moreover, it indicates that reading in a second language relies primarily on reading competence in the first language. Bernhardt and Kamil (1995) reviewed Cummins's position in the following lines:

This hypothesis posits that language operations such as reading and writing are transferable and intertwined, that is, second language skills are only superficially distinct and that at some fundamental core, they are interdependent or are in actuality the same. Further, once a set of language operations has been acquired, they will also be available within second-language contexts. According to this hypothesis, when a language operation such as reading and writing has been acquired in a language, the same operation is not 'reacquired' in a second. The operation is simply available upon need. (p. 39)

This general view of reading involves a cognitive network that is eagerly available when reading in diverse languages. Further, this insinuates that reading needs certain competencies, such as reading strategies and metacognitive reading knowledge, that can be transferred, without modification, to other languages or between two languages. (Van Gelderen et al., 2007; Jiang, 2011). This hypothesis implies that L2 reading can be explained as the inclusion of two language processing capacities (Grabe, 2009). Moreover, various long-term and cross-sectional research conclusions have

approved the concept that reading and learning skills acquired in one language can fully prognosticate identical skills in another language (Verhoeven,1990).

1.3.3. The Simple View of Reading

The Simple View of Reading is a theory that strives to determine the skills that contribute to immediate reading comprehension. According to the original theory, an individual's reading comprehension results from her decoding skills and language comprehension (Gough and Tunmer, 1986). Hover, Tunmer, and Gough (1986, 1990) introduced the Simple View of Reading to demonstrate children's main factors affecting reading comprehension. This model illustrates reading due to word identification and awareness techniques and is based on analytical evaluation evidence.

It suggests that reading comprehension is guided by an equation that can be defined as follows R Equals D x C; where R is reading comprehension, C is word recognition skills as calculated by decoding, and D is comprehension ability as measured by listening comprehension. Decoding leads to interpreting written letters into phonetic codes, while linguistic awareness is defined as the list of schemes that employ lexical data to join sentence and text comprehension (Hover & Gough, 1990 et al.). Other researchers claimed that word recognition and decoding are rather addictive and not multiplicative (R=D+C). However, the outcome addition of decoding and listening comprehension actions is used in a regression equation to prognosticate students' reading comprehension.

The model assumes that listening and reading comprehension will be highly correlated when readers have achieved high decoding skills. Each skill is

considered necessary for reading comprehension yet is insufficient for successful reading. According to this view, there are other aspects and skills influencing reading comprehension. However, word recognition and comprehension abilities are the fundamental sources that develop reading.

1.4. Types of Reading

Understanding the multifaceted character of reading, including academic and non-academic factors, can greatly improve the capacity to engage with various reading materials. Academic reading involves an attentive and analytical procedure, appropriate for difficult texts in educational settings. However, non-academic reading spans different materials for general information or entertainment. The discussion will delve into more details about intensive reading, highlighting thorough examination, and extensive reading, fostering a more general overview.

1.4.1. Academic Reading

Academic reading is a type of academic discipline that consists of reading for academic purposes. It usually focuses on studying literature, journal articles, and encyclopaedias related to the subject the learner is studying or other subjects that might be needed in their academic journey and research career. Furthermore, Academic reading is an inevitable task in academic settings. It is distinct from common and general reading for many causes. Academic context frequently requires students to deal with expository texts during their course of study (Jafari & Shokrpour, 2012), and these reading materials are commonly more challenging and complex because of the distinct vocabulary and syntax as well as the abstract language that represents the texts

and concepts of specific disciplines (Akarsu & Harputlu, 2014; Swanson et al., 2017; Taboada et al., 2013; Tarchi, 2015). Additionally, academic reading generates difficulties for students because of university reading, needed reading, language issues, and lack of prior knowledge (Hirano, 2015). However, reading obstacles often do not keep them from the written reading materials (Hirano, 2015)

1.4.2. Non-academic Reading

Non-academic reading is often written for a lay audience and without an academic or research background. Non-academic reading can be found in various forms of media.

1.4.3. Extensive Reading

Various authors have defined extensive reading in education, especially in language learning. The term Extensive Reading was initially derived from Palmer (1917) (as cited in Day & Bamford, 1998, p. 5). Day et al. (1998) stated that "extensive reading is known for the process of reading a large number of books and lots of other materials that are appropriate to learners' linguistic competence".

Richards and Schmidt (2002) defined it as "the tendency to read many reading materials to understand the general content of what is read" (p. 193). It implies reading more extended texts with simplistic language to better understand a text than studying linguistic elements (Grabe & Stoller, 2002; Yamashita, 2004). Other researchers described it as autonomous reading with

large quantities of written texts to develop prior knowledge (Renandya et al., 1999). When a learner reads written texts that motivate him or interest him, this process is called "extensive reading". Richards et al. (1992) define extensive reading as "a process intended to develop good reading habits, build up knowledge, and encourage a liking for reading" (p. 8). Accordingly, extensive reading appears to be a gratifying process for learners. It could promote reading among EFL/ESL learners due to the difficulty of motivating such readers to consume extended reading materials. According to Nasser Rashid's (2011) study, reading extensively improves learners' vocabulary knowledge.

1.4.4. Intensive Reading

Intensive reading is to disintegrate a text fully, to assimilate as much sense from it as possible. This is done by dealing with a text and looking up every word, phrase, or collocation that seems complex. According to Mart (2015), intensive reading enables a reader to carry out a detailed analysis inside the class, accompanied by the teacher, in which vocabulary and grammar points are studied in a small section. Furthermore, Brown (2000) designates intensive reading as "narrow reading" because it prepares students to examine diverse texts about the corresponding or diverse issues. The principal trait of intensive reading is to concentrate on content and grammatical structures.

Teachers can also participate in the process by utilizing some techniques such as; reading aloud, asking questions, and having students guess information from texts. Hence, students gain opportunities to grasp the meaning of a text. Brown (2000) assumes that "the key to intensive reading is to provide students with more possibilities to be in direct contact with a written

text; in this way, the more familiar the reader is with the text, the more awareness is developed" (p. 59).

1.5. Reading Comprehension Models

Bottom-up and Top-down processing seems to be very important to developing reading strategies. Accordingly, having a global view of reading strategies cannot happen without analyzing these two crucial reading models. Definitions of reading differ according to researchers' beliefs on literacy and its improvement in reading research. Correspondingly, several reading models have been suggested to explain this process. Based on intensified research results, these models were developed from primary models illustrating reading as a hierarchical process (i.e., bottom-up and top-down). These modern, research-based models characterize the intercommunication between the reader and the reading process.

The following lines will examine the two types of fundamental reading models. In addition, the Interactive approach will also be reviewed. It is the one up-to-date and widely used. It selects positive aspects of both fundamental models and takes full advantage of them. It's a highly effective model and goes in the direction of reading comprehension and reading strategy redevelopment last but not least, other modern models that mainly describe how the reader interacts with reading aspects will also be analyzed.

1.5.1. Bottom-Up processing

The Bottom-up processing approach was first introduced by psychologist Gibbson (1972), and then it was familiarized thanks to Gough (1972). The famous psychologist and professor mentioned the theory in his book entitled

"One Second of Reading" (1972). He defined reading as a "sequential process, whereby the person reading takes the letters, assembles them into sounds, and those sounds form words and phrases". According to Swaffer, Arans, and Byrnes (1991), the bottom-up model, which highlights the linguistic signs, usually forms a correct and well-elaborated text comprehension.
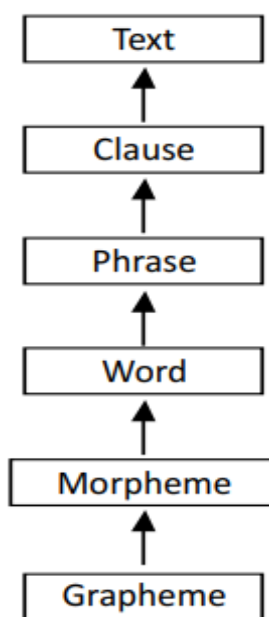
Figure 1. 1 Bottom-up processing described (Ardhani 2011)

The bottom-up model in **Figure 1. 1** shows that reading is a process that occurs in a series of discrete stages. The reader is a passive receptor of textual information. In the bottom-up model, the reader begins by reading a theoretical background and literature review that explains the various text units used to classify words. Then, the reader goes on to interpret the various terms in their understanding of sentences.

The first step in the reading process is the introduction of a paragraph. This is followed by the reader's understanding of the text's message. This process is suggested to be performed hierarchically (Murtagh, 1989; Singhal, 2008; Stoller, 2013; Ozek & Civelek, 2006). Moreover, in the bottom-up reading model, the written text is the center of attention, and reading goes from part to whole. Readers habitually use their consciousness about lexical items, structural points, and phonological models to decode the text's meaning. According to Gough (1972), in the bottom-up model, the reading process goes from letter to sound to words to meaning.

The bottom-up model tells about language comprehension, that meaning begins from small units and increases piece by piece. It has been calculated that readers must know 95-99% of a text's words to comprehend it depending on the reading direction (Mehrpour & Rahimi, 2010, p.294). Hence, following the bottom-up model, students use reading strategies that are described by Hyte (2016) as follows:

Bottom-up reading strategies begin with letter-sound correspondences (the bottom) to achieve comprehension (the top). Bottom-up processing begins with letters and sounds, building to morpheme and word recognition, and then gradually moving to grammatical structure identification, sentences, and longer texts. A phonics approach to teaching reading supports bottom-up processes. Phonics is a method to facilitate students' access to text to ultimately lead to comprehension. (p. 149)

Accordingly, what is meant by the "phonics approach" to teaching reading is merely built upon the bottom-up model. The prime focus of phonics instruction is to help readers in general, and EFL readers expressly understand how letters are linked to sounds (phonemes), form letter-sound correspondences and spelling patterns, and help them learn how to apply this knowledge in their reading. However, background knowledge here is neglected. Readers focus on the composing elements of a text. The latter model ignores the reader's prior knowledge. Further, Dole et al. (1991) saw the bottom-processing model as a single-direction part-holistic written or printed text processing.

Moreover, Brown (2007) defined the bottom-up model as using the metal data-processing device to put linguistic signals (letters morphemes, syllables, words, phrases, and discourse makers) in order. The model is described as compiling the reading jigsaw of a text by correcting the right pieces together. Putting a reading puzzle or individual units of a text together helps build an overall interpretation of the text (Celce-Murcia, 2001). In addition, jigsaw reading (mentioned in the previous section) is a relevant cooperative learning strategy that includes students and reinforces their cooperation and participation in the learning process. It serves to create a depth of knowledge not achievable if the students were to work and learn all of the material independently. Eunjeo (2009) remarks that this model is characterized as "focusing on individual words, pausing for grammatical difficulties and repeated readings" (p. 93). Many bottom-up theorists, including Gough (1972), assert that in order for a learner to achieve reading comprehension intensely

depends on "the graphic display" which the reader must rebuild or turn into something understandable (Gough et al., 1972,1983).

Consequently, readers can develop reading comprehension by extending their vocabularies and greater authority over intricate syntactic structures. In the frame of the bottom-up model, Gough (1972) recommended a reading model that illustrates an experienced reader as a fluent decoder who does not use contextual hints at all. This model designates that reading is a hierarchical process relying on letter-sound links. A good reader should therefore recognize all letters of a word to extract the meaning. They should also identify all words to grasp the entire purpose of the sentence.

According to the model, good readers rely on linguistic data produced by the text and do not presume words. Gough (1972) estimated word guessing as a symbol of reading problems, mainly when the reader fails to decode quickly (Nicholson, 1993). Present insights assume that grammar promotes learning, and its presentations to learners should be through "contextualisation of linguistic forms in situations of natural use" (Hedge, 2003, p. 159). This model highlights the significance of word identification for reading success. This can be a predicament for L2 learners, who might possess insufficient knowledge of vocabulary. This obstacle might lead L2 readers to rely more on limited textual reading strategies than global ones. The weaknesses of the bottom-up model can be summarised in the following points: Bottom-up models imply that the focus of the reading process is word-by-word decoding, which would entail great time and work, and transforms reading into a slow process for readers.

Moreover, word-by-word decoding would result in over storage of short-term memory with a quantity of information that surpasses its potential.

The model neglects the supplement of a reader's background knowledge. It assumes that readers are only receptors of a text's information and do not play an active role in the reading process. This theory denies the schema theory, whose research results show that previous knowledge influences students' retrieval of information and reading comprehension (Bensoussan 1998). It does not describe how higher-level procedures affect lower-level ones. It presumes that the reading process goes directly from the lower to the higher-order process, not illustrating how reading occurs (Ahmadi, Ismail, and Abdullah, 2013; Grabe, and Stoller, 2013).

1.5.2. Top-down processing

Reading theories in ESL/EFL were deeply influenced by Goodman's view. The top-down reading comprehension model was developed by Goodman (1967). He assumed that reading was a "guessing game" in which the "reader reconstructs, as best as he can, a message which a writer has encoded" (1983, p. 544). According to Goodman (1967), readers could only clearly understand the text thanks to their background or prior knowledge. This view supports the views shared by proponents of the top-down processing model. This model is employed when readers translate hypotheses and form an opinion. Moreover, they want to find out the text's overall idea or to get its principal intentions (Nuttall, 1996). Unlike the bottom-up processing model, top-down processing starts with learners' full cognitive abilities. In other words, reading

comprehension occurs when the reader activates his mind and uses his experience and prior knowledge.

Correll and Eisterhold (1998) confirmed that the reader's prediction and background knowledge are essential for this model to function effectively. Sheory and Mokhtari's taxonomy (2002) includes "global strategies", which are very similar to this model since it involves many of the tools used in the latter type of strategies. Brown et al. (2007) assume that the model depends on how the reader contributes to the text, which could be previously acquired data or his intelligence. According to Brown (1983), top-down processing "serves the listeners/readers to fix ambiguities or pick between possible alternative representations of the incoming data" (p. 557). Furthermore, Horiba et al. (1993) assert that the top-down model helps foreign language readers locate text's meaning significantly. Hence, it develops their ability to frame the text's structure. According to Maria Alvarez et al. (2013), Top-down processing provides the understanding of a vague text because it initiates high-level schemas that lead the reading process. Prior knowledge and reader expectations become fundamental elements in the comprehension process. When readers face a text, their previous knowledge guides their comprehension process.

Many researchers claim that language learners who use the top-down model are described as "good readers" who take full advantage of the context they are facing. Accordingly, the top-down approach uses the meaning brought by the reader. It is reader-driven. (Mikulecky 2008).

Eskey (2005) defines the top-down processing model of reading comprehension as "a process that starts from the learner's cognitive abilities

and transforms into the text after going through a cognitive process using prior knowledge". The reading material used is seen as "meaningless". Consequently, the top-down comprehension model views the text as unimportant, with the reader obtaining meaning by blending the text into their previous knowledge (Aebersold & Field, 1997; Ahmadi, Hairul, & Pourhossein, 2012). The model highlights the significance of different comprehension skills, such as prediction, analysing, summarising, and making an assumption about the text. The various weaknesses of bottom-up and top-down models in dealing with reading materials have resulted in the formation of a new model called the "interactive model" (Samuels et al., 1988).

Last but not least, the top-down model has encountered several criticisms, which are the following: fluent readers can identify words in a few seconds. Accordingly, the production of hypotheses should happen more concisely, which seems unrealistic. Further, it does not produce enough evidence for the reading processes of weak readers. Moreover, Stanovich (1981) called skilled readers "efficient processors" because they can process complete text employing fewer cognitive resources. The top-down model undervalues the purpose of bottom-down processes and does not show how they interact with higher-order processes.
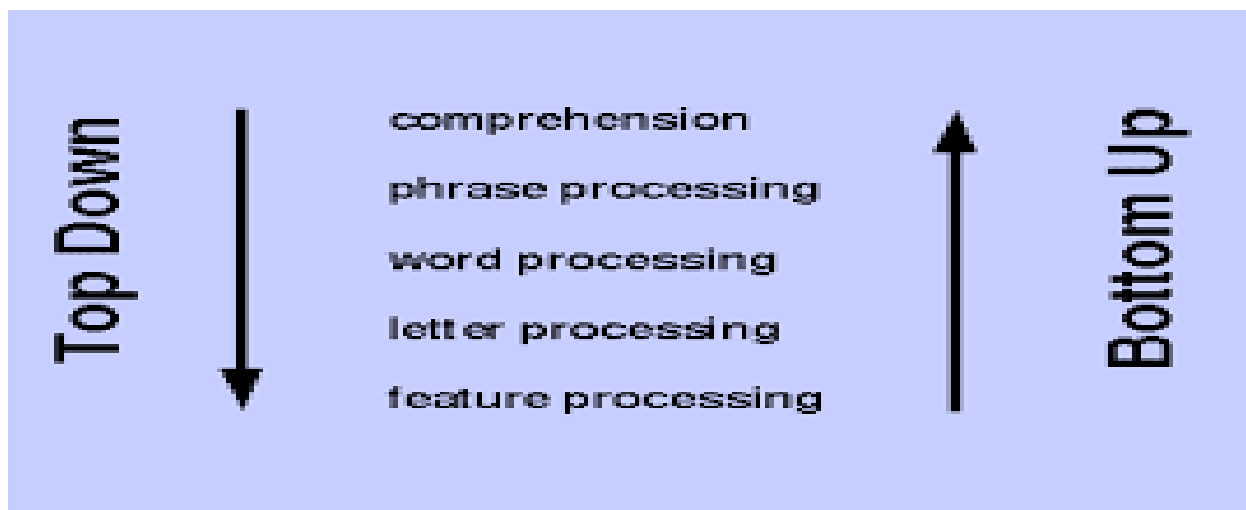
Figure 1. 2 Illustration of Top-down and Bottom-up Characteristics

(PREMEDHQ, 2020)

1.5.3. Interactive Approach

Looking back at the two previous models, many weaknesses and limitations were noticed. Accordingly, the interactive approach came to life to diagnose and find solutions to get the best from both models. The bottom-up and top-down models exemplify absolute opposite viewpoints that researchers currently disapprove of. On the contrary, they are viewed as complementary to each other through the process of reading. Kintsch (2005) explains:

Both top-down and bottom-up processes are integral parts of perception, problem-solving, and comprehension. Without sensory input (bottom-up), we could neither perceive, comprehend, nor think. However, perception, comprehension, and thought would be equally impossible without a memory or knowledge component (top-down). It makes no sense to ask whether one is more important than the other: nothing happens without both. So, the question

for the theorist is not top-down or bottom-up, but how do these processes interact to produce fluent comprehension?

(p. 126)

This model assumes that the two are equally important and that word recognition uses both processes equally (Seng and Hashim, 2006; Grabe, 1991). The term "interactive" points out two kinds of interactions. Firstly, general interaction between the reader and the text, whereby, the reader uses previous knowledge to construct meaning. Secondly is the interaction between lower-level automatic language and higher-level understanding skills (Grabe, 1991; Tavaloki, 2014). Duchant (1991), one of the proponents of the interactive model, defined it as a model where a reader forms meaning by the particular use of information from all sources of meaning (graphemic, phonemic, morphemic, syntax, semantics) without adherence to any one set order. The reader concurrently uses all levels of processing even though one source of meaning can be principal at a given time. Goodman (1981) described the model as:

One which uses print as input and has meaning as output. However, the reader provides input too. The reader, interacting with the text, is selective in using just as little of the cues from the text as necessary to construct meaning. (p. 118)

According to Rumelhart (1985), a skilled reader should master all the text's composing components. He saw reading as a process that connects both models and that the composing parts of any text, whether it is cognitive or metacognitive, connect and interact during the reading process. Hence, the

interactive model should be employed, especially by skilled and advanced readers. Furthermore, a clear example of an interactive model could be "the Gouldschinsky instructional program", which is considered a bottom-up model. However, it includes guidelines for all the various text components to help learners reach complete reading comprehension.

Further, the interactive model proponents claim that none of the two prior foundational models could be used in isolation to reach reading comprehension. The integration of both approaches was revealed to be necessary for the reading process (Rumelhart, 1977). Likewise, Alderson (2000) noted that "the whole reading process is not an 'either/or selection between the bottom-up and top-down models, but involves the interaction between both approaches" (p. 30).
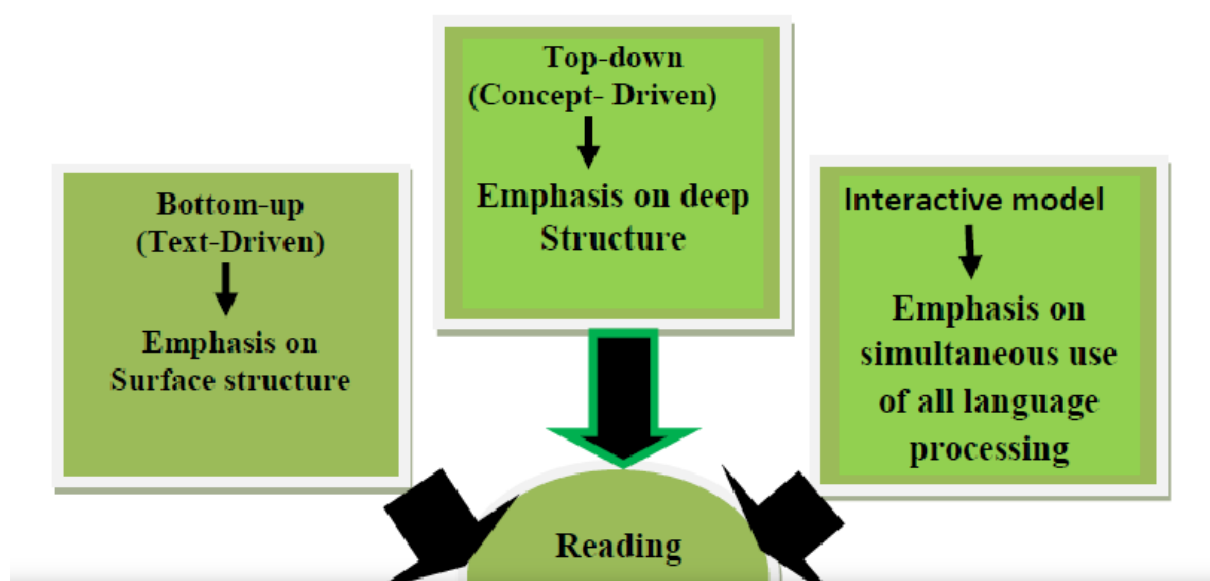
Figure 1. 3 Figure of Reading Models (Dechant, 1991)

Accordingly, Dechant (1991) here demonstrates the clear distinction between the three reading models and the main characteristic of the interactive

reading model, which focuses on all language components. The interactive reading comprehension model emphasizes the crucial roles of lower-level processing skills, such as word recognition, and higher-level inference and reasoning skills, such as text explanation, in comprehending a text (Grabe, 1991).

However, many researchers focus on the fact that only experts and advanced readers can use the interactive reading comprehension model (Ahmadi et al., 2013; Eskey, 2005; Grabe, 1991; Wang, 2009). Thus, using such a model can improve EFL learners' reading abilities or activate their tendency to integrate all reading process elements without neglecting any crucial element that can block their way to achieving complete reading comprehension. Although this model would seem to be a bargain solution, research has proved that neither reasoning nor context information influences automatic word recognition.

1.5.4. The Interactive Compensatory Model

Stanovich (1980) introduced the Interactive Compensatory Model of reading due to the discussion that bottom-up and top-down models provoked. This model is based on the interactive model previously mentioned but also incorporates an attached compensatory tool. Stanovich (1980) showed that reading is basically a bottom-up process and that the reader only applies top-down techniques when they encounter obstacles in decoding the input information (Nicholson, 1993). He explains that higher-level methods do not certainly depend on the achievement of lower-level processes. In addition, poor readers can even rely more on inferencing than good readers in some conditions, disclaiming the top-down hypothesis which insinuates that "reading

becomes more conceptually driven as fluency develops". Moreover, Kintsch (2005) explained that top-down and bottom-up processes are "Indispensable components of understanding, problem-solving, and awareness. Without tangible input (bottom-up), we could neither comprehend, understand, nor recall. However, perception, comprehension, and thought would be reasonably useless without consciousness or knowledge element (top-down)" (p. 26).

Further, it makes no sense to wonder whether one is more important than the other: nothing occurs without both. So, the issue and interrogation for the scholar are not top-down or bottom-up, but how do these processes associate to deliver fluid comprehension? Besides, as mentioned earlier, these two models cannot perform suitably or effectively when used separately. Moreover, the interactive compensatory model views reading as bi-directional, including the intercommunication between bottom-up and top-down processes (Tavakoli, 2014). Hence, readers with reduced word recognition skills can counterbalance this vulnerability by relying on, for example, contextual hints.

On the other hand, in smooth reading circumstances, readers' lower-level processes work automatically and depend less on contextual clues (Grabe, 2009). Accordingly, the interactive-compensatory reading model was revealed. The work leading up to the model is summarised, and more recent empirical studies are described. One significant implication from these studies and other recent research is that Goodman and Smith's (1970) "psycholinguistic guessing game" is an inexact conceptualization of specific variations in meaning use. When a context is appropriately instantiated, less-skilled readers employ

context to expedite word recognition just as much, if not more, than skilled readers (Stanovich, 1984).

According to Schraw, Brooks, and Crippen (2005), the scope of the interactive compensatory model of learning (ICML) is to implement a recognition structure and promote teacher skills in shaping learning contexts. Though uncertain, the model is compatible with a wide variety of valuable data. In addition, Schraw et al. (2005) claim that ICML entails five main elements: cognitive ability, organized knowledge base, learning strategy, metacognitive ability, and motivation belief. Researchers defined these components as follows: The cognitive part refers to general learning ability (intelligence). Knowledge base refers to personal organized, domain-specific knowledge and general knowledge long-term memory. The strategy part refers to the procedure that enables the learner to solve a specific problem. On the other hand, metacognition includes knowledge about learners and how to regulate their learning. Motivation refers to the belief in the ability to perform the task and the task's goal successfully.

1.5.5. The Constructive-Integrative Model

This model was proposed by Kintsch and van Dijk in the mid-1970s. They launched propositional analysis as a necessary foundation for meaning creation. The Constructive-Integrative Model insinuates that a text's meaning is constructed by linking linguistic input with a reader's awareness in a combined text representation. Consequently, this model demonstrates two types of text

description: text models and situation models. The text model relates to the text's content.

It is the description of the central and sustaining ideas addressed in the text. The text-based image indicates the linguistic level of the text's representation; the words and sentences are the "raw material" for developing a text-based representation of text. These sentences are connected in one network of text ideas, and some of these ideas are maintained in the network while others might disappear. The maintenance of ideas depends on their function in defining new information or promoting assumptions. When readers use specific ideas frequently to generate significant links in the network, this redundancy helps to keep the ideas active and protect them from fading, while less used information tends to be excluded from the network. Once the readers combine the text model with their background knowledge and begin interpreting information based on their goals, interests, attitudes, prior knowledge, and task purpose, the situation model is created. In a situation model, the text drops its originality to become part of a more substantial composition.

It reveals the readers' ability to understand the author's message and to give his or her explanation of information. The model's naming unveils the most noticeable features of developing a rational representation of the text's content: construction and integration. The construction process requires various procedures: initiating words' meanings, inferencing, and using background knowledge to generate the propositional structure of the text content. It points to automatic bottom-up processing of activated links. In this stage, the reader produces information from the text through word identification, syntactic

parsing, and proposition creation. While in the assimilation phase, the reader establishes a situation model of text representative of the reader's perception of the text content. In this phase, background knowledge performs an essential role in combining the extracted propositions. These hypotheses are incorporated by attaching them to a coherent description as part of the text situation model. Any unnecessary or weakly activated information is consequently removed. (Kintsch, 1988; Grabe, 2009; Lenhard, Baier, Endlich, Schneider, and Hoffman, 2013).

1.6. Defining Learning/Reading Strategies

The term strategy comes from the Greek word strategia, which means leadership or the art of war and refers to planning, intentional guidance, and movement toward a goal (Oxford, 1990). Moreover, strategy can be defined as a detailed and accurate map used to succeed in any needed situation. Other researchers identify strategies as long-term plans for reaching a goal or performing better in any given task or skill. Strategy n. in education, a systematic plan, consciously adapted and monitored, to improve one's performance in learning. (Cambridge Dictionary 2021, p. 244)

Ellis (2015) stated that the process of language learning strategies "starts as conscious but subsequently, as a result of continuous use, become automatic and unconscious" (p. 57). Rubin (1975) described learning strategies as the techniques followed by learners to get information. Likewise, many researchers defined learning strategies, but one that seems very interesting is Mayer and Weinstein's (1986). They stated, "Learning strategies are the behaviors and thoughts that a learner engages in during learning that is intended to influence

the learner's encoding process" (p. 183). Language learning strategies are among the most critical segments that can help spot how –and how well –a student will learn a second or a foreign language. Learning strategies were also defined by Chamot and O'Malley (1990) as "special ways of processing information that enhance comprehension, learning, and retention of the information" (p. 312). Furthermore, learning strategies can be seen as specific actions used by experienced (or sometimes novice) learners to acquire language effectively. Foreign language learning strategies are specific behaviors, techniques, or steps learners apply knowingly to improve their progress in understanding and using the foreign language (Oxford 1990).

Chamot (1990) illustrated learning strategies as "processes, techniques, approaches, and actions that students take to facilitate the learning and recall of both linguistic and content areas of information" (p. 125). Additionally, Oxford (1990) described learning strategies as "specific actions taken by the learner to make learning easier, faster, more enjoyable, more self-directed, more effective, and more transferable to new situations" (p. 8). Accordingly, the last line of the latter quote appears to be very important. It means that when the learner is confronted with new learning situations, learning strategies come to take place. The learner consciously selects strategies that match the task or the language (EFL, for instance), they are considered valuable instruments for active, conscious, and purposeful self-regulation of learning.

Learning strategies can be classified into six groups: cognitive, metacognitive, memory-related, compensatory, affective, and social. Furthermore, Oxford (1990) formed what is the so-called "Oxford's

Taxonomy of language learning strategies". He divided it into two main groups; direct and indirect strategies according to their contribution to the learning process. The direct strategies group contains three subgroups: cognitive strategies, memory strategies, and compensation strategies. On the other hand, the indirect strategies group contains three other sub-groups: meta-cognitive strategies, practical strategies, and social strategies. Accordingly, what is meant here by direct and indirect is the way learners use strategies. Some strategies are directly linked to the cognitive side; others are more likely to be linked to the affective and social side. Correspondingly, Stern (1996) also classified learning strategies into five main groups. These are as follows; management and planning strategies, cognitive strategies, communicative and experiential strategies, interpersonal strategies, and last but not least effective strategies. Stern (1996) chose to limit the number of groups and tried to be more specific.

1.6.1. Defining Reading Strategies

When examining the literature on reading, various definitions of reading strategies can be found. Cohen (1990) labelled them as "mental methods that readers deliberately favour to accomplish reading tasks" (p. 273). Likewise, Presseley and Afflerbach (1995) defined reading strategies as a "reader's conscious and effortful mental or physical problem-solving procedures when dealing with a text". Baker and Booknit (2004) defined them as "techniques and methods used to make reading more successful". Furthermore, researchers and language instructors have also grown frequently engaged in monitoring L2/FL learners' strategies during reading and the possible effect of strategy-

based reading instruction on reading development and enhancement (Aghaie, Zhang, 2012 et al.). Also, Grabe and Stoller (2002) state that "strategies for definitional purposes, are best defined as abilities that are potentially open to conscious reflection and use" (p. 17)

According to Anderson (1991), to accomplish strategic reading and reading comprehension, a reader must possess both knowledge about strategies and the ability to implement strategies efficiently, which is also one of the distinguishing traits that characterize less skilled readers. Reading strategies have been declared necessary in reaching reading comprehension specifically for EFL/ESL students. The use of reading strategies would help the learners to have a deeper understanding of the text. According to Oxford, the reading area has benefited the most from strategy research of any L2/FL (second language/foreign language) skill area. However, amongst researchers such as Oxford and Cohen (1990), in the scope of learning/reading strategies, there is no suitable or rather no agreed-on definition for reading strategies. However, Carell (1998) defines reading strategies as "conscious actions readers take to solve difficulties in reading and therefore improve reading comprehension" (p. 150). Further, Erler and Finkbeiner (2017) defined reading strategies as "self-disciplined procedures where readers flexibly take control with a certain level of consciousness to reclaim, store, regulate, elaborate, and evaluate textual information to achieve reading goals" (p. 191). Hence, reading strategies are essential and valuable for resolving reading difficulties or challenges and can be a crucial component in developing readers' awareness and autonomy.

Garner (1987) argued that "reading strategies are generally deliberate, and playful activities are undertaken by active learners often to remedy the observed cognitive failure". According to Brown (2007), reading strategies could be defined as the "specific methods of approaching a problem or task, modes of operation for achieving particular ends, and planned designs". Reading strategies are performed consciously, at least to some extent, by the language learner, which implies that the language learner is knowledgeable of when they are using them. Furthermore, McNamara (2007) explained that reading strategies are "actions that with practice become rapid, efficient and effective ways to help readers understand and remember much more from the text in less time.". On the other hand, Afflerbach, Pearson, and Paris (2008) clarified that they are "deliberate, goal-directed attempts to control and modify the reader's efforts to decode text, understand words, and construct meanings of a text" (p. 220). After reviewing various reading strategy definitions, Bedlen (2018) summarized the literature in a very detailed and recognizable definition, he states:

Reading strategies are actions consciously performed to achieve a particular reading task or goal, which can be used in various ways according to context and learner. It is important to note that these actions may occur before reading, during the reading process, or following a reading task, as will be made apparent when discussing the particular strategies for reading. (p. 322)

Accordingly, following Bedlen's assumptions, it is imperative to point out that any reading strategy can occur when dealing with reading material for a learner. Sheory and Mokhtari (2001) described reading strategies as

"thoughtful, attentive methods that readers use to enhance reading comprehension". The preceding definitions of reading strategies have the following shared features: they are intentional processes used for decoding comprehension problems and promoting reading comprehension. To sum it up, reading strategies are deliberate mental plans, techniques, and procedures utilized by readers when reading. In other words, a "plan d'attaque" (attack plan) that readers take advantage of when trying to attain reading comprehension, which gives them a sense of control over the reading process (Sheory a,d Mokhtari, 2008; Mokhtari, Sheory, and Reichard, 2008). The researcher displays the main reading strategies definitions according to the chronological order in **Table 1. 1** as follows:

Study	Definition of Reading Strategy (ies)	Keywords Noted in the Definitions
Olshavsky (1976)	"…purposeful means of comprehending the author's message" (p. 656)	**Purposeful** means.
Brown (1980)	"Any deliberate, planful control of activities that gives birth to comprehension" (p. 456)	**Deliberate** and **Planful.**
Garner (1982)	"...something executed by a learner, often as a means of attaining a goal (e.g. reading part of a text), something either developed or selected to make the cognitive process or to monitor it" (p. 163)	Attaining a **Goal.**

Johnston (1983)	"…reading comprehension…involves conscious and unconscious use of various strategies, including problem-solving strategies, to build a model of meaning which the writer is assumed to have intended." (p. 17)	**Consciously** and **Unconsciously** Employed. **Problem-solving**
Van Dijk and Kintsch (1983)	"...the idea of an agent about the best way to act in order to reach a goal" (pp. 64-65)	Aimed for a **Goal.**
Block (1986)	"Comprehension strategies indicate how readers conceive a task, what textual cues they attend to, how they make sense of what they read, and what they do when they do not understand" (p. 465)	**Making sense** of texts read.
Garner (1987)	"…generally deliberate, planful activities undertaken by active learners, many times to remedy perceived cognitive failure" (p. 50)	**Deliberate** and **planful** RS as remedying **cognitive failure.**
Barnett (1988)	"...the mental operations involved when readers approach a text to effectively and make sense of what they read. These [are seen as] problem-solving techniques..." (p. 150)	**Purposeful** for readers.
Cohen (1990)	"Those mental processes that readers consciously choose to use in accomplishing reading tasks. Such strategies may contribute to successful comprehension or detract from it. In principle, what distinguishes strategies from other	**Conscious process** and involving **the element of choice** on the part of the reader.

	processes is the element of choice involved in their selection" (p. 133)	
Pritchard (1990a)	"…a deliberate action that readers take voluntarily to develop an understanding of what they read" (p. 275)	**Deliberate actions**.
Wade, Trathen, & Schraw (1990)	"…a deliberate action—the conscious selection of one alternative over another. Thus, it is accessible to introspection and conscious report" (p. 149)	**Conscious & deliberate actions**.
Anderson (1991)	"…deliberate, cognitive steps that learners can take to assist in acquiring, storing, and retrieving new information" (p. 460)	**Deliberate steps** used for **different purposes**.
Paris, Wasik & Turner (1991)	"…actions selected deliberately to achieve particular goals" (p. 692)	**Deliberate** and **goal-oriented Actions**.
Kletzien (1991)	"...an action (or series of actions) that is employed in order to construct meaning (Garner, 1987). Readers who know what strategies are, how to use them, and when they are appropriate are considered to be strategic readers (Paris, Lipson, & Wixson, 1983a)" (p. 69) "…deliberate means of constructing meaning from a text when comprehension is interrupted" (p. 69)	**Deliberate** and **problem-solving**.
Pearson, Roehler, Dole & Duffy (1992)	"…conscious and flexible plans that readers apply and adapt to particular texts and tasks" (cited in Jimenez, Garcia & Pearson, 1996)	**Conscious** and **flexible plans**.

Paris, Lipson, & Wixson (1994)	"…deliberate actions and therefore are available for introspection or conscious report. They may not always be accurate or useful but strategies are identifiable to the agent and others by intentions and selected goal states. In a sense, strategies are skills under consideration..." (p. 790) "Strategies are not necessarily different actions [than skills]; they are skills that have been taken from their automatic contexts for closer inspection." (p. 790) "Because strategic actions are, in a simplified sense, skills that are made deliberate, it follows that a 'strategy' can mirror any level of skill." (p. 791)	**Conscious** & deliberate actions.
Davies (1995)	"…a physical or mental action used consciously or unconsciously with the intention of facilitating text comprehension and/or learning" (p. 50)	**Conscious** & deliberate actions. Used **consciously** or **unconsciously**.
Jiménez, García & Pearson (1996)	Strategic processing in reading is defined as "any overt purposeful effort or activity used on the part of the reader to make sense of the printed material with which he or she was interacting." (p. 98)	Overt **purposeful effort/activity.**

Carrell, Cajdusek, & Wise (1998)	"…actions that readers select and control to achieve desired goals or objectives" (p. 97)	**Goal-oriented actions.**
Chamot & El-Dinary (1999)	"…mental procedures that assist learning and that occasionally can be accompanied by overt activities" (p. 319)	**Mental procedures.**
Birch (2002)	"…strategies allow the reader to take the text as a source of information, and, drawing on the knowledge base as another source, make sense of what is on the printed page. The processing strategies can be optionally consciously or RS as optionally consciously or unconsciously used unconsciously applied; that is, they can operate automatically beneath the level of our awareness or they can kick in selectively because of our attention to something we perceive." (p. 2)	**Optionally consciously** or **unconsciously** used.
Abbott (2006)	"…the mental operations or comprehension processes that readers select and apply in order to make sense of what they read" (p. 637)	**Mental operations** that readers **select** and **apply**
Yang (2006)	"…cognitive actions taken to repair problems resulted from the insufficiency of language knowledge and to get liberal meaning" (p. 335) RS as cognitive actions used to repair problems Comprehension monitoring strategies are "those intentional	**Cognitive actions** used to **repair problems.**

	techniques by which readers monitor or manage their reading" (p. 337)	
Graesser (2007)	"…a cognitive or behavioural action that is enacted under particular contextual conditions, with the goal of improving some aspect of comprehension" (p. 6)	**Cognitive or behavioural action** with the goal of **improving comprehension**.
Grabe (2009)	"…processes that are consciously controlled by readers to solve reading problems." (p.221).	**Consciously** controlled to **solve problems.**
Alkhaleefah (2011)	"...any physical or mental processes that are consciously and deliberately employed by EFL/L2 readers in order to either solve problems in and/or facilitate comprehension of texts during the reading task(s)" (pp.31-32)	**Physical** or **mental processes are consciously** used to **solve problems** and/or **facilitate comprehension.**

Table 1. 1 Summary of the various definitions of reading strategy(ies) in L1 and L2 reading research (Alkhaleefah, 2016)

According to **Table 1. 1,** reading strategy researchers do not agree with the fact that reading strategies are used consciously or unconsciously used. However, they all agree that reading strategies are essential to the reading process. These strategies help improve comprehension and reflect how readers comprehend reading tasks, make sense of what they read, and resolve their reading difficulties (Lee, 2012). Drawing on the above explanations, we can conclude that reading strategies refer to actions or internal cognitive procedures and implicate consciousness and awareness on behalf of the readers. Learners

deliberately take action and pick the appropriate strategy to cope with a specific assignment or an obstacle during the reading process. To sum up, reading strategies are characterized by three main features: they are intended, goal/problem-oriented, and reader-regulated. Moreover, reading strategies have been categorized into different classifications. For example, Zhang and Shang (2012), following the learning strategy taxonomy proposed by Oxford (1997), divide them into cognitive, metacognitive, memory, compensatory, social, and practical. Block categorizes them into general and local strategies. Anderson groups strategies into supervising strategies, support strategies, paraphrasing strategies, establishing coherence in the text, and test-taking strategies. Lastly, Mokhtari and Sheory (2002) classify them into global, cognitive, and support strategies. However, before discussing the different reading strategy types, a clear insight into other categorizations will be discussed in the next section.

1.7. Classification of Reading Strategies

Various classifications have been recommended for the categorization of reading strategies. Some of these classifications are based on the timing where the strategy is implemented (that is, before, during, or after reading), while others depend on the segments of the text they deal with (local and global). One of the most widely known classifications of reading strategies contains two categories: cognitive strategies and metacognitive strategies. Cognitive strategies are employed to develop correlations between preceding and incoming knowledge to improve learning, such as translating into the native language or note-taking. On the other hand, metacognitive strategies are self-monitoring and self-regulating activities that focus on the process and output of reading. They allow the reader to be aware of whether they comprehend the

text, their ability to identify the reading demands and their knowledge of when and how to use a particular cognitive strategy.

Metacognitive strategies involve imagining the scene in the text, generating links between the reader's knowledge and new information, questioning, summarizing, and focusing on important information (Tavakoli, 2014; Zhang & Seehpo, 2013). Accordingly, classification is another point of discord among experts in the field. There have been numerous frameworks designed over the past few decades, among which there are many correlations between the identified strategies. For the most part, the most significant divergence between the frameworks is how the strategies are classified. Hsiao and Oxford (2002) assume that these distinctions are important because of "the purpose and the cognitive process of the individual strategies themselves as well as theories about L2 learning" (p. 368).

Furthermore, two classifications that have been broadly used and which overlay are the classifications provided by Oxford (1990) and the O'Malley and Chamot framework (1990). Their categorisations are very similar in terms of the constitution and other details. O'Malley and Chamot (1990) classify reading strategies into three main types: cognitive strategies, metacognitive strategies, and last but not least social/affective strategies. Cognitive strategies are those that "operate directly on incoming information, manipulating it in ways that enhance learning" (1990, p. 44). An example of a strategy used from this category would be rereading the text or summarising. Secondly, metacognitive strategies are focused on the learner's synergy and direct interaction with the text and incorporate such strategies as monitoring and independent evaluation.

For example, they have a complete awareness of when reading comprehension occurs (monitoring) and then evaluate the strategy used in success (evaluation). The concluding category is social/affective and correlates to interactions with others concerning the learning task (discussing a text with teacher/other students) or following upon one's mental state to "assure oneself that a learning activity will be successful or to reduce anxiety" (1990, p. 46).

However, Oxford's (1990) classification of reading strategies differs incongruously from that of O'Malley and Chamot's (1990), even though there are several conformities regarding strategies' definitions. First, He divides social/affective strategies into entirely different categories with different motives and ways of processing. Also, he adds two other categories: memory and compensation strategies. According to him, "memory strategies lead to strategies that assist the learner in making associations to mentally store information over a more extended period" (1990, p.38-39). Strategies in this category would incorporate semiotic mapping and grouping items together. Compensation strategies help learners "bridge knowledge gaps such as lack of vocabulary or inadequate understanding of grammar" (1990, p.47). In reading assignments, learners with unfamiliar vocabulary might employ connection hints to help them understand the words or use the dictionary to detect definitions.

Although Oxford, O'Malley, and Chamot's (1990) categorizations share many similarities, Mokhtari and Sheorey (2001) developed a completely different classification that is strongly in connection with content and categories. Firstly, it should be heeded that their framework only entails

reading strategies, particularly reading for academic purposes. Mokhtari and Sheorey's (2001) framework, then, is not expected to be generalized to language skills other than reading. However, Oxford, O'Malley, and Chamot's (1990) frameworks are, generally speaking, broad and can be used for the other four language skills. Another aspect that differentiates Mokhtari and Sheory (2001) from the two other frameworks is the assumption that metacognition precedes reading strategies. Moreover, their framework is created on the presumptions that the meaning of a text is constructed by the content and the reader of the text, and that "constructing meaning from a text is an intentional, deliberate, and purposeful act" (Mokhtari & Reichard, 2002, p.250). Accordingly, Mokhtari and Sheory (2001) strongly agree that reading strategies are based on voluntary, thoughtful acts based on the reader's perception of their cognitive nature of comprehension.

Oxford (2017) described reading and learning strategies in general as "selected and used by learners with some degree of consciousness in specific contexts to regulate multiple aspects of themselves... to accomplish [reading] tasks" (p.48). Therefore, metacognition antecedes reading strategies use and, while so, incorporates the totality of reading strategies. According to Mokhtari and Sheory (2005), "all reading strategies are metacognitive strategies" (p.251). Moreover, their categorization of reading strategies only includes three main types: global, problem-solving, and support reading strategies.

Sarig (1987, cited in   Macarao) distinguished reading strategies into four main categories; technical aids (e.g., skimming, scanning, skipping, marking key elements in margins); clarification and simplification (e.g., being able to

select relevant units of language to be facilitated so that can be analyzed and understood; recognizing utterances in a text by their lexical, morphemic or syntactic clues); coherence detection (e.g., identifying the overall framework of the text; using prior knowledge of the topic or information outside the text); monitoring (e.g., self-evaluating effectiveness of action; changing task when a particular course of action is not going well).

It is evident from just these three frameworks that the categorization of learning/reading strategies differs drastically. There are significant shared features between the diverse learning/reading strategies frameworks that have already been discussed but are meriting elaborating upon. However, since Mokhtari and Sheory's (2001) categorization was purely directed to reading strategies, a deeper and more detailed review could give different insights.

1.7.1. Global (Meta-cognitive) Reading Strategies

According to Joel C. Meniado, the term metacognition mainly means "cognition about cognition" or, in other words thinking about thinking. Flavell (1976) also described metacognition as "awareness of one's cognitive processes and outcomes or anything similar to them". Metacognition points, amongst other things, to the ongoing monitoring and consistent management and orchestration of these processes concerning the cognitive objects or data on which they support, usually at the service of some tangible goal or objective. Metacognitive reading strategies help students actively observe and synchronize the cognitive processing activities they are dealing with. It implicates one's knowledge and understanding of thinking processes and

products. Readers with a clear perception of what they are doing with the knowledge they are dealing with are more likely to succeed.

Iwai (2011) classifies metacognition into four main elements: metacognitive knowledge, which is the learner's consciousness about the different factors that affect cognitive activities. The metacognitive experiences include the individual's mental feedback applied to belong to any cognitive activity. The goals/task points out the main objective of the given activity. The strategies are the tools used by learners to attain their objective or metacognitive purposes. It also has three significant features: metacognitive knowledge, metacognitive monitoring, self-regulation, and control (Pintrich, Wolters & Baxter, 2000).

Louca (2003) defines metacognition as cognition about cognition since it requires analyzing the brain's proceeding during the reading/thinking process. Reading as a cognitive process insinuates that metacognition or awareness and adjustment of one's thinking during the reading process could lead to better comprehension. According to Iwai (2011), metacognition is vital to reading comprehension since it is necessary to evolve some linguistic, cognitive, and social skills. Mokharti and Reichard (2002) claim that metacognitive reading strategy awareness is of concern not only for what they symbolize about how students systematize their interaction with the context but also for how strategies are linked to adequate reading comprehension. Metacognitive reading strategy awareness is highlighted in the scope of the reading comprehension process, which has been designated as an influential administrator for reading strategies while reading. Many researchers admitted that there are variations between metacognitive knowledge, which leads to the

knowledge of cognitive and metacognitive skills, which are interpreted as the regulation of cognition.

Moreover, there are variances between metacognitive knowledge and metacognitive control processes, the first one introduces what learners know about cognition, and the second one leads to how learners utilize that knowledge to regulate cognition (Brown, 1987; Baker, 1991). Brown (1982) pointed out that strategy use failure could mainly be linked to the inability to combine metacognitive strategies with cognitive strategies during the learning/reading strategies. He confirms that knowledge of cognition could be characterized as what one knows about cognition. It usually consists of three distinct metacognitive reading strategy awareness types: declarative knowledge, procedural knowledge, and conditional knowledge. Further, this category consists of items that reflect intentional, planned techniques that readers employ to monitor their reading (e.g., "I have a purpose in mind when I read", "I think about what I know to help me understand what I read", "I take an overall view of the text to see what it is about before reading it")

1.7.2. Problem-Solving (Cognitive) Reading Strategies

Ozek and Civelek (2006) assert that cognitive reading strategies are the most widely used strategies. According to Williams and Burden (1997), cognitive strategies are perceived as mental processes undeviatingly concerned with processing information to learn for collecting, storage, retrieval, or use of information. Further, Gagne (1977) illustrates that cognitive reading strategies are intrinsic processes known as the control learning processes. In addition, he

explains that as an internal process, cognitive strategies serve to modify and regulate the learning process.

According to Brown (1994, p.115), they are more bound to specific learning tasks and require more direct administration of the learning element itself. In addition, Wahyono (2019) stated that cognitive strategies could be classified into the following elements: recognising, using topics, guessing from the context, using a dictionary, writing down, imagery, activating background information, summarising, using linguistic hints, using text markers, leaping the complex parts' and repeating words or phrases. In accordance, studies in both L1 and L2 reading research present a twofold division of cognitive strategies as bottom-up and top-down. Accordingly, Goodman points (1986) to the bottom-up model as the "common sense notion" (p.11). In this approach, reading is meant to be decoded, identifying letters, words, phrases, and then sentences to get the meaning. On the other hand, the top-down model promotes "the selection of the fewest and most productive elements from a text to make sense of it" (Lynch & Hudson, 1991, p. 218) and observes the reading process as an active "psychological guessing game" (Carrell, 1998, p.2) as already mentioned earlier.

Top-down denies the assumption that the description of letters to form words and the descent of meaning from these words is efficient reading. On the contrary, it implies that efficient reading demands the readers to make prognostications and hypotheses about the text content by relating the new information to their former knowledge and using as few language hints as

possible. It is further believed that the readers can verify whether the hypothesis is correct by sampling the text.

Aebersold and Field (Salataci, 1998) affirmed that while reading "various processes regularly befall readers' minds" (p. 62). With the help of top-down and bottom-up strategies, readers use pre-reading information to make some forecasts about the text. Processing information is ignited at the sentence level. That is to say, they focus on the association of the meaning and grammatical category of a word, sentence syntax, and text details. While processing information granted to them by each sentence, readers check to see how this information suits them, again using bottom-up and top-down strategies such as background knowledge, prediction, skimming, and scanning Accordingly, this category includes items representing the techniques that readers use to surmount obstacles they face in understanding textual information (e.g., "I try to get back on track when I lose concentration", "When the text becomes difficult, I reread to increase my understanding").

1.7.3. Support Reading Strategies

According to many researchers, support strategies refer to readers using tools to comprehend the text, such as using a dictionary, taking notes, or underlining and highlighting the text (Chen and Chen, 2015). It means readers are taking advantage of an external source to help them decipher the text and solve their reading comprehension problems. Furthermore, Mokhtari and Reichard (2002) defined support strategies as "basic support mechanisms intended to aid the reader in comprehending the text such as using a dictionary, taking notes, underlining, or highlighting textual information" (p.4). They

stated that support strategies "provide the support mechanisms aimed at sustaining responses to reading.". Besides, it involves using support mechanisms or reference tools to assist the reader in understanding the text and, for example, taking notes while reading, translating complex parts into the reader's L1, reading aloud, and highlighting important information in the text. This category encompasses using reference elements such as a dictionary and discussing what has been read to check the understanding. It highlights the importance of cooperative learning and its importance in reaching reading comprehension.

Learners use support from other reading materials and technology and cooperate with other learners to support their prior understanding of the text, article, or book. Accordingly, it is composed of items reflecting strategies related to activities or tools that readers use to comprehend the text better (e.g., "When reading, I translate from English into my native language. I use reference materials (e.g., a dictionary) to help me understand what I read.") (Mokhtari& Sheory, 2002). This category is purely directed towards using other tools next to reading materials and using them as a kind of support to the prior knowledge and cognitive and metacognitive abilities.
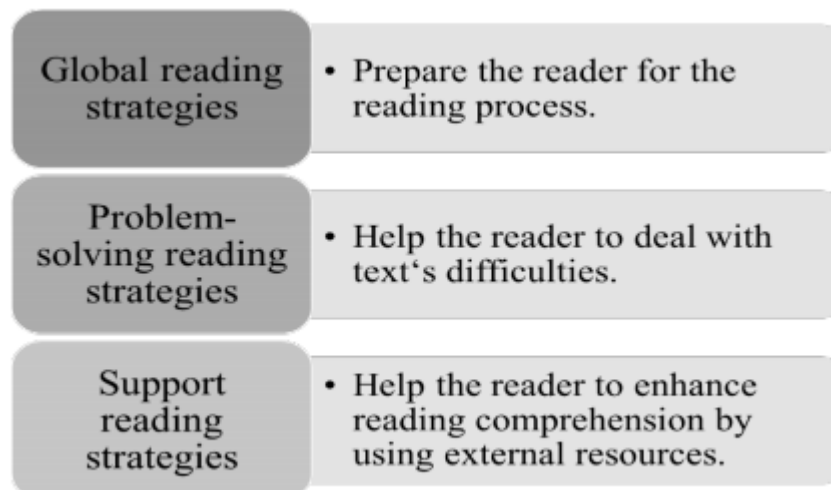
Figure 1. 4 Classification of Reading Strategies by Mokhtari and Sheory (2002*)*

Moreover, the earlier evaluated classifications unveil that there are various taxonomies for L2 reading strategies. These can differ according to the origin of the strategies (text vs reader), the range of strategy use (general, local, word, or text), or their roles (build meaning vs monitoring of comprehension). Strategies themselves are neither negative nor positive but rather depend on the efficiency of use in different contexts. If students do not have enough metacognitive awareness, they may feel disoriented about which relevant reading strategies to apply and how to control their reading (Tavakoli, 2014). Thus, successful strategic readers should be conscious of reading strategy use, know when and why to use them, and be able to apply these strategies according to any situation where they might be needed (Grabe, 2009; Singhal, 2001; Yukselir, 2014; Zhang & Wu, 2009). Further, expert readers with essential metacognitive knowledge can conduct their thinking processes and employ efficient reading strategies. However, less proficient readers lack the awareness and resources for solving comprehension problems and do not

possess the necessary knowledge to evaluate their efforts in handling these problems (McNeil, 2011; Sheory and Mokhtari, 2001). The researcher considered the latter statement as the knowledge gap.

Metacognitive awareness of reading strategies allows learners to work better and read more. Learners who understand the various classifications of learning and reading, thinking, and problem-solving strategies will be more predisposed to apply them. Readers who recognize their strengths and deficiencies can adapt their cognition and thinking to be more flexible to several tasks and promote learning (Amer 2006). Furthermore, it is remarkable that metacognitive knowledge appears to be associated with the shift of learning, the capacity to use the knowledge obtained in one context or another situation (Bransford et al. 1999). Sheorey and Mokhtari (2001) stated that "the reader's metacognitive knowledge about reading includes an awareness of a variety of reading strategies and that this metacognitive awareness of reading strategies influences the cognitive enterprise of reading". (p. 433)

1.8. Proficiency Level Role in Selecting Reading Strategies

According to Pssaltou-Joycey (2010), the term proficiency refers to "the various stages of language learning which progressively allow learners to function more effectively in a second/foreign language" (p. 86). He cited that learners were traditionally categorized into beginners (novices), intermediate, and advanced (proficient) based on their L2/FL proficiency level. Accordingly, many researchers assured that the level of L2/FL proficiency exerts an impact on reading strategy use. Hosenfeld (1977) tried to find out the strategies deployed by successful and non-successful learners and deduced that

successful readers focus on principal meaning reading strategies. On the other hand, non-successful readers lost track of the main meaning and concentrated on unfamiliar words. Hosenfeld's study was very influential in raising attention to empirical research projects on reading strategies. His study and other investigations suggested the use of proficiency level tests to split students into more and less skilled and proposed reading strategy instruction for non-successful readers (Erler & Finkbeiner, 2007). Carrel (1989) claimed that EFL proficient readers tended to generate more global or top-down strategies, while less proficient readers students depended more on local or bottom-up strategies. Chamot and El-Dinary (1999) revealed that "low-rated students relied more on phonetic decoding during reading than on any other strategy, but high-rated students focused more on using background knowledge and inferencing to understand a text" (p. 332). They proclaimed that efficient readers tended to focus on monitoring and adjusting strategies or the task as a whole, while poor students appeared to adhere to inadequate strategies and be highly concerned about details. Additionally, Sheory and Mokhtari (2001), in their study on identifying the differences in the metacognitive awareness of reading strategies between native and non-native readers, highlighted that more proficient readers in both groups declared using more cognitive and metacognitive reading strategies than less proficient readers. Tsai et al. (2010) who studied L1 and L2 strategy use in reading comprehension found that L2-skilled readers utilized more reading strategies than less-skilled readers. Other investigators who researched the association between L2/FL reading mastery and strategy use reached identical deductions. They assure that high and low proficiency seemed to differ in strategy use. Also, they established that L2/FL

reading proficiency level was correlated with strategic knowledge (Ahmad & Asraf, 2004; Yigiter et al., 2005). Regardless, Anderson (1991) found that both good and poor learners deploy the same types of reading strategies. Moreover, he accentuated those successful readers who mixed, applied, and scrutinized strategies more efficiently. In addition, he asserted that:

Strategic reading is not only a matter of knowing what strategy to use, but also the reader must know how to use a strategy successfully and orchestrate its use with other strategies. It is not sufficient to know about strategies; a reader must also be able to apply them strategically

(p. 468-469).

Most of the above findings were mainly executed to emphasize how good and poor learners use reading strategies. Yet, fewer studies focused solely on poor learners and ways of developing their reading skills. Moreover, a small number of studies investigated the effect of strategy instruction on less skilled reading performance. More specifically, Kern (1998) examined the impact of strategy instruction on university learners and observed a substantial distinction in comprehension improvements within the less proficient readers group. Also, Song (1998) focused on the influence of implementing strategy instruction in an EFL university classroom. Findings showed that the low reading proficiency group profited the most from the instruction. On the other hand, other studies confirmed that all learners, regardless of their proficiency level, can benefit from strategy instruction (Klingner & Vaughn, 2000; Nel, 2003).

To sum it up, language proficiency has a strong correlation with strategy use. However, the lack of studies on the impact of strategy instruction on less-skilled readers specifically imposes the need for further investigation.

1.9. Online Reading Strategies Versus Traditional Reading Strategies

In the past years, ways of reading have drastically changed. Cultural changes and technology played a huge role in the many transformations that happened to read materials. We went from traditional printed books to e-books implemented in technological devices such as tablets and smartphones. Nowadays, it can be observed that with the expanse of knowledge and communication technologies, activities such as reading, researching, and watching videos on the internet and PC, and even smartphones have expanded (Rideout, Foehr, and Roberts, 2010; TUİK, 2017). Further, being literate nowadays suggests using modern technologies like "Google Docs", "Dropbox", "Facebook", "Google", "Foursquare", "Chrome", "YouTube", and thousands of other educational applications and e-books (Leu et al., 2011; Leu et al., 2013).

Reading is changing directly from written materials to online reading. Therefore, the skills, strategies, and characters required by learners also change (Lankshear & Knobel, 2011; Leu et al., 2013). Moreover, the interaction between a reader and reading material is a continuous mixture of written materials on paper and other e-books or articles on computers and other technological devices. Hence, it should be understood that employing one kind of technology does not prevent readers from understanding the other (Jabr,

2013). As such, the reading process is more or less identical and is technically subject to composition or substructures.

On the other hand, using any reading strategy may prevail on how and why to read stays changeable. However, even if the reading process seems identical in both forms, assuming that the traditional reading strategies can be copy-pasted to online reading circumstances is misleading. According to Anderson (2003), teachers should not "assume a simple transfer of L2 reading skills and strategies from the hardcopy environment to the online environment" (p. 5).

Furthermore, it is essential to make EFL learners consciously informed about online reading strategies or conventional reading strategies. Therefore, when a learner is dealing with online reading materials grasping online reading strategies is seen to be very necessary for lifelong learning (Amer 2004). Moreover, modern research papers show that students who require online reading strategies are regularly frustrated when they deal with a text resulting from an internet search since they are not immediately gratified in their quick search for instant results and may utilize a reading strategy not visible in print text environments (Sutherland-Smith 2002, p. 664). Hence, they frequently make quick, arbitrary decisions with little knowledge and evaluation (Eagleton 2001, p. 3).

Anderson (2003), who studied strategy use in ESL/EFL contexts, was one of the first researchers to investigate online reading strategies. Adjusting an instrument, called Survey of Reading Strategies (SORS), was designed by Mokhtari and Sheorey (2002). He designed a new research tool and named it "Online Survey of Reading Strategies" (OSORS). It is used to measure online

reading strategies. However, the study did not find substantial disparities in the use of the strategies between the two (online and conventional reading strategies). There were more similitudes, especially in the use of global and support strategies. The only difference is in terms of the frequency of problem-solving strategies which is reported to be used more in the EFL context. Nevertheless, the study concentrated on the learning environment rather than the academic one. Pookcharoen (2009) investigated the online reading strategy used by Thai students. The study comprised a mixed method (OSORS, verbal protocol, semi-structured interview). It compared the online reading strategy used among proficient and non-proficient readers in academic settings. The results showed that language command plays an influential role in both the frequency and quality of the strategy employed. Nevertheless, the study investigated a different variable which is language proficiency. In addition, a more recent study by Omar (2014) aimed to explore the online reading strategies used among elder postgraduates in Libya. Findings asserted that they were moderate users of strategies. Problem-solving strategies were more frequently utilized while support strategies were the least used.

1.10. Reading Strategies Versus Reading Skills

In literature, strategies can be encountered under diverse names, such as processes, techniques, approaches, actions, skills, or techniques. In this regard, regarding reading strategies, there is much perplexity concerning the terms skills and strategies throughout writings, as researchers and instructors often make use of these two terms interchangeably referring to the identical process

while they occasionally differentiate between the two (Afflerbach et al., 2008; Alexander, Graham, and Harris, 1998; Kirby, 1988; Macaro, 2006; Manoli and Papadopoulou, 2012b). Such inconsistency is especially apparent when some procedures are called strategies in some studies, and referred to as skills in other studies, often causing bafflement. Alexander and Jetton (2002) mentioned that "the appropriate label rests on whether the reader consciously evokes the procedure or is simply functioning in a typical, automatic way" (p. 295-296). Shedding light on this confusion is necessary because the way we conceptualize reading strategies and skills exerts an impact on the way reading practices are applied in classes (Afflerbach et al., 2008). As already noted, strategies are seen as intentional actions, and plans deployed deliberately by learners to achieve certain objectives or cope with comprehension problems, such as a failure to understand the sense of a word or locate a piece of specific information (Alexander et al., 1998; Dole et al., 1991; Macaro, 2006; Paris et al., 1983; Pritchard, 1990; Urquart & Weir, 1998). On the other hand, skills are believed to be highly routinized, nearly mechanical conducts that can be deployed through practice and recurrence (Dole et al., 1991, Urquhart & Weir, 1998). Cohen (1998) pointed out that "The element of consciousness is what distinguishes strategies from those processes that are not strategic" (p. 4). Nevertheless, any given process can be considered a strategy when it is intentionally selected by a reader, while it is regarded as a skill when after a certain time, a lot of practice, and repetition, it is used automatically and effortlessly. In this regard, the terms strategies and skills, though they are not equivalent, can be associated, as strategies are seen as "cognitive processes that are open to conscious reflection but that may be on their way to becoming

skills" (Grabe, 2009, p. 221). The goal of direct strategy instruction, which will be discussed in the next sections, is to take readers from deliberate reading strategy use to the conscious development of reading skills in order to grow reading performance. Accordingly, researchers consider their association to be two faces of the same coin, that is, two sides of any reading process since skills are strategies that have become automatic via practice whereas strategies are "skills under consideration" (Paris et al., 1983, p. 295)

1.10.1. Reading Strategies Role in Developing Reading Skills

Researchers have pointed out the importance of training language learners to read strategically. There has been a tremendous collection of research on reading strategies since the 80s. This large quantity of research has tried to study L2/FL learners' strategies when learning or practicing a language (Macaro, 2006). Besides, when it comes to strategy use in reading, it has been proposed that learners use various strategies to acquire, store, and retrieve data (Rigney, 1978). Consequently, applying these reading strategies indicates how readers comprehend a task, understand what they read, and what they do when they are helpless in front of a text.

Additionally, as Singhal (2001) asserts, such reading strategies are "the techniques used by the learner to enhance reading comprehension and overcome comprehension errors". Paris et al. (1983) state that learning to read strategically may encourage the development of reading comprehension, and "failure to be strategic in reading may result from either developmental inability or poor learning" (p. 293). Additionally, Grabe (2009) emphasizes the influence of reading comprehension strategies explicitly "Acquisition of better

reading strategies is needed to crack the illusion of comprehension in readers who are settling for low standards of comprehension; They need to acquire and implement strategies to facilitate deeper levels of comprehension" (p. 449).

Moreover, Palincsar & Brown (1984) also assume that strategic reading helps students "avoid comprehension non-performance, and boost their text retention" (p. 133). Besides, Tankersley (2003) states that readers who "read effectively" have solid phonemic awareness, have a good vocabulary regarding their age, and most importantly, understand and remember what they read. Similarly, Koda (2004) mentioned that strategic reading could compensate for "learners' comprehension insufficiency and develop critical thinking" (p. 40).

Numerous studies assure that an essential part of effective reading comprehension is the use of reading strategies. Readers have precise objectives to achieve, each of which demands a particular mode of text-information processing (Grabe, 2009; Koda, 2005). Every reader (skilled or less skilled) encounters comprehension impairment of one kind or another, specifically when dealing with more intricate content. Nonetheless, what discerns good readers from poor ones is that successful readers perceive the nature of the issue, deploy several strategies, and monitor comprehension in a way that will assist them to overcome hindrances and accomplish difficult tasks (Anderson 1991; Erler and Finkbeiner, 2007; Koda, 2005). According to Paris et al (1991), "strategies allow readers to elaborate, organize and evaluate information derived from text" (p. 609). They also assured that the acquisition of reading strategies co-occurs with the development of numerous cognitive strategies to improve awareness, recollection, communication, and knowledge.

1.10.2.   Reading Strategy Instructions' Role in Developing Reading Skills

A substantial body of research in the area of reading comprehension has concentrated on the advantages of strategy instruction, which is significantly essential for the area of foreign languages. The line of research that investigated the strategies that competent and less-competent readers deploy in an attempt to build meaning from written texts is conducive to strategy instruction. Researchers believe that it can help less proficient readers develop strategic reading and improve their reading skills (Koda et al., 2005). Success in reading skills development should not be taken for granted for all language learners let alone L2/FL learners. Consequently, researchers believe that strategy use success can be reached through strategy instruction.

Most studies on strategy use and its impact, have had as their focal position the way of preparing EFL students to employ a range of reading strategies to develop their reading skills. Accordingly, Singhal (2001) assumed that strategy instruction leads to enhanced reading performance. Learners can use autonomously acquired reading strategies or the ones explicitly instructed by their teachers. Consequently, teachers can enhance student awareness through the instruction of reading strategies. This point will be discussed in the next section. Predicting, making connections, visualizing, inferring, questioning, summarizing, and other categories of reading strategies are pointed out by research to improve reading comprehension (Block & Israel, 2005).

Further, it is necessary to teach the strategies by identifying the strategy and how it should be utilized, modeling through the think-aloud process, group

practice, partner practice, and autonomous strategy use (Duke & Pearson, 2005). Brunstein et al. (2008) analyzed the instructional impact of four reading strategies (summarising, questioning, clarifying, predicting) which were studied in small groups on elementary- school learners' reading comprehension and determined that they got higher marks both in the post-test and follow-up tests than the learners who were given conventional instruction. Furthermore, Mayer (1998) claims that strategy instruction within academic texts allows students to obtain metacognitive skills that help them acquire how, when, and where to use the incoming strategies.

Blau (2003) asserts that with the changing historical and educational settings, definitions of reading comprehension have shifted. The newest form of reading, which has been named 'critical reading,' expects students to be strategic readers who manage, monitor, and modify written texts by themselves. Besides, readers, who can choose texts they will read, get involved in higher-order reasoning as they read, and go from just summarising or retelling a text to the point of production and critical observation of a text. Hence, learners should be shown a wide variety of written texts and practice effective reading comprehension strategies (Kirmizi 2009, Billmeyer, 2006). Accordingly, Williams et al. (2015) demonstrate that L2/FL learners should utilize relevant learning/reading strategies, where required, to enhance their language or reading skills. In addition, the circumstances that make a reading strategy efficient can be ordered as follows: who is using it, how consciously it is applied, what sort of text is being read, when it is being used, and why it is being used (Carrell, 1998; Farrell, 2001). Consequently, what one reader does

reasonably may not do good for another reader. Likewise, whereas a strategy can be beneficial for a reader with a straightforward text, it may not be a proper instrument with another text when the direction of reading is distinctive.

It is noticeable that the primary purpose of reading strategy instruction is to make language learning more significant and allow students to become more experienced at using fitting strategies and, eventually, enhance their reading skills (Cohen, 1998; Oxford, 1990). Another major aim of strategy instruction is to render students more autonomous, self-directed, and responsible for their learning since "many students (even adults) are passive and accustomed to being spoon-fed" (Oxford, 1990, p. 10). In short, Cohen (1998) accentuated that "The ultimate goal of strategy instruction is to empower students by allowing them to take control of the language learning process" (p. 53)

Teachers need to follow suitable methods to guide their students. However, to ensure improved reading skills and suitable use of reading strategies, simply teaching one chosen strategy is not sufficient. Skilled readers do not usually deploy unique reading strategies but utilize a number of strategies flexibly during text interaction in an attempt to reach comprehension (Grabe, 2009). In this regard, more recent research has revealed more significant efficacy of strategy instruction when a mixture of numerous strategies is taught during the reading process (Duke and Pearson, 2002; Pressley, 2006; Pressley and Block, 2002). Therefore, there is a consensus that teaching a repertoire of strategies is more efficacious than teaching them separately.

1.11. Conclusion

This chapter aimed to discuss the background knowledge about both reading skills and strategy use. It started with reviewing reading comprehension and reading skill detailed definitions. Also, the reading models were meticulously analyzed along with L1 and L2 reading theories. It pointed out the different taxonomies and categorisations of learning strategies and reading strategies.

Moreover, the relationship between reading strategies and reading skills in terms of linguistic use was explicitly examined. The chapter also discussed the distinction between online and traditional reading strategies. Last but not least, the direct impact of strategy use and strategy instruction on developing and improving proficient and less proficient learners' reading performance. The researcher came to the conclusion that there is a lack of literature on the influence of strategy use on unskilled readers. The next chapter offers a comprehensive description of the educational context and research methodology involved in this research.

CHAPTER TWO: Educational Context, and Research Methodology

2.1. Introduction

The last chapter traced the pertinent literature on reading comprehension, reading skills, and learning and reading strategy use including the impact of strategy use and reading strategy instruction on the development of reading scores.

This chapter presents the educational context in which the study is engaged. It highlights the importance of ELT and reading skills in the Algerian context. Also, it expounds on the design and the methodological processes adopted in this thesis, which consists of an initial and main study. Scilicet, the sample, the data collection tools, the strategy use instruction approach, the reading materials and tests used, and the contribution of the initial study are delivered in detail.

2.2. English Language Teaching in Algeria

English is viewed as the international language of communication, and its stature in the modern world cannot be overdrawn. English is spoken by over 1.5 billion people worldwide, and it is the official language in over 50 countries. It is also the most generally used language in international business, science, technology, and education. Teaching English as a foreign language (TEFL) has become increasingly necessary in today's globalized world. It supplies learners with the aptitudes and knowledge required to communicate effectively, operate in international business, learn in English-speaking universities, and value other cultures.

English Language Teaching (ELT) is of substantial significance in Algeria due to a variety of causes. Algeria, being a country that is rapidly evolving and

expanding, ought to keep up with the improvements at the economic, and most importantly, educational level. Therefore, proficiency in English is vital for Algerian learners who wish to partake in the global community. The ability to speak, read, and understand English provides educational and professional benefits to Algerians. English is the language of higher education, and many of the top universities worldwide conduct their courses and publish valuable studies exclusively in English. Algerian learners who are proficient in English have access to more satisfactory higher education prospects.

As reported by Benttayeb-Ouahiani (2014), Algerian educational authorities reviewed the position of ELT at various levels including higher education. In this regard, recent reforms have been adopted at an extensive scale: as of September 2003; English in Algeria is taught for seven years from middle school (4 years) for students aged between eleven and fourteen/fifteen, to secondary school (3 years) for students aged between fifteen and eighteen. Moreover, newer reforms have been added to the position of ELT. Starting in September 2022, English is now integrated into primary schools from the third year for students aged eight, which will add three more years and strengthen the position of ELT in Algeria.

Revisions also contain the introduction of the Competency-Based Approach; subsequently, CBA or task-based learning in order to promote students' vigorous engagement in their attainment by allowing them to make more commitments in the classroom. The process by competencies does not symbolize a thorough transformation from the communicative approach. It affects the students in a strategy of "learning how to learn", i.e., it assists and nurtures students to operate, conceive, and exhibit the competencies needed in

the implementation of their learning. In short, it supplies them with prospects to be autonomous learners. Also, it teaches them to become effective language users in real-life circumstances outside the classroom and to overcome barriers and issues they face, through language use. To sum it up, it moves students learning from knowledge acquisition to knowledge use.

At the tertiary level, a set of enhancements were executed in diverse Faculties and Departments. Listed in primacy is the LMD system adopted in September 2004. This system is supposed to unlock unique horizons for students and teachers to investigate in the area of knowledge and research. Unlike the classical system (which is no longer adopted), LMD is presumed to equip students with plentiful possibilities for post-graduation (Master/Doctorate). It supplies them with the essential benchmark for their professional careers. A meticulous exposition of the position of ELT in Algeria adapted from Benttayeb (2015) and adapted to the current reforms and undertakings including, middle, secondary, and higher education is presented in the chart downward.

ELT Situation in Algeria

Fundemental Education

Higher Education

Primary School

5 years of formal instruction
English starting from 3rd Year (September 2022)

LMD System

English is the main subject

3 Years of graduation + 5 Years of Post-graduation (2 Years of Master + 3 Years of Doctorate)

Middle School

4 Years of formal Instruction.

English is compulsory.

Secondary School

3 years of formal Instruction.

English is compulsory.

Other Departments

English is optional and is only taught for one semester.

Figure 2. 1 ELT Situation in Algeria (2022-2023)

2.2.1. English Language Teaching at Algerian Tertiary Level

The major goals for EFL teaching at the echelon of Dr Moulay Taher University (Saida) are precisely the ones mentioned for ELT guidelines in all other universities across the nation. These objectives are to a great degree equivalent to the prevailing seven categories of objectives stated for the teaching of foreign languages:

1. Expanding students' communicative competence: This implicates assisting students to develop the language skills essential for effectual communication in English, including speaking, listening, reading, and writing.

2. Improving students' critical thinking skills: EFL teaching in Algerian universities strives to allow students to develop critical thinking skills via examination and interpretation of English language materials.

3. Constructing students' cultural awareness: EFL instruction in Algeria aims to expose students to English-speaking cultures and help them comprehend and value cultural differences.

4. Equipping students for academic and professional contexts: EFL instruction here focuses on preparing students for academic and professional contexts where English is generally used, such as international conferences or academic publishing.

5. Enhancing students' language proficiency: Finally, EFL instruction in Algerian universities aspires to help students achieve a particular level of language mastery, as defined by international language proficiency frameworks

such as the Common European Framework of Reference for Languages (CEFR).

The Department of English at Dr. Moulay Taher University symbolizes one central pedagogical pillar among others, that operates to deliver supportive prerequisites for the attainment of the already declared objectives. Students study EFL for Three years (LMD System), implemented in Algeria since 2005 (Hedid, 2014). In the LMD System, Licence preparation comprises three years of EFL instruction founded on the main skills of listening, speaking, reading, and writing which are introduced in the form of lectures or TD (Travaux Dirigées). Courses are student-centred. Students have courses in Literature, Civilisation, Psychology, Sociolinguistics, Psycholinguistics, and TEFL. In addition, they have modules such as ICT, ESP, Methodology, and the choice to learn another language (Chinese or French at Saida's University). At the end of the third year, students choose between teacher training accompanied by an internship report and a dissertation. Also, students have to validate all their semesters (six) with thirty (30) credits for each (180 total) to validate their Licence. Holders of the LMD Licence have the possibility to prepare their Master's in one of the many specialties provided, which are, Literature, Didactics of EFL, ESP, and Translation. Among the most vital subjects to be studied, and one which the current study heavily relies on, is the reading comprehension module. Details about its importance and objectives will be discussed in the next sections.

2.2.2. Reading Module Situation in the English Department

According to Bekkar et Ouerrad (2020), "reading is not only a compulsory academic university module to be studied, but also a social practice because it is a means of connecting people and provides social meanings" (p. 140). The reading module is regarded to be an important component of EFL learning and teaching in Algerian Universities. Precisely, in Dr Moulay Taher's English Department, the Reading comprehension module is taught for the first two years (LMD System), instead of only one year (Classical System). Since the implementation of the LMD system, this module received a great deal of reinforcement. Additionally, for 1st and 2nd year EFL students at Saida's English department, the reading comprehension module is taught over two sessions of one hour and a half each (three hours a week) with a coefficient of 2 and 6 credits. It's worth noting that at this level the time distribution, the coefficient, and the credit for the reading module in the LMD system differs from one English department to another according to various variables of the specialty opted for in the department and accentuated in the "LMD project". Besides, teaching reading to EFL students is not aimlessly done; teachers have developed some objectives to achieve.

2.2.3. Objectives

According to Richards (2015), "Goal setting is an important aspect of language teaching, as it provides both teachers and learners with a clear sense of direction and purpose" (p. 101). Here in Saida's English department, the indisputable plurality of EFL teachers approves that the goals of teaching the reading module should be the following:

1. Develop reading skills: The main objective of teaching reading is to help EFL learners expand their reading skills, including the ability to pinpoint major ideas, understand details, guess the meaning, and pull findings from written texts.

2. **Enhance vocabulary and grammar:** Reading enables students to develop their vocabulary and acquire exposure to distinct sentence designs, which can improve their general language mastery.

3. **Construct critical thinking skills:** Reading permits students to develop critical thinking skills such as analysis, synthesis, and evaluation, as they confront various texts and ideas.

4. Improve academic performance: Reading is a crucial skill for success in academic settings, as learners are required to read and apprehend academic texts and research papers.

5. Develop independent learning skills: By reading extensively, EFL learners acquire autonomous learning skills and become self-directed learners who can strive and comprehend information on their own.

6. Create intercultural competence: Reading materials from different cultures and standpoints assist EFL learners in developing intercultural competence, which is the ability to understand and respect cultural disparities. (Hadfield, 1993; Byram & Fleming, 1998; Carrel, 1998; Nation & Newton, 2009; Ur, 2012; Grabe, 2014).

Overall, the main purpose of teaching reading at the tertiary level for EFL learners is to enable them to become skilled and confident readers who can utilize reading as an instrument for learning, communication, and personal

2.3. Choice of the Research Method

The selection of the research method is essential in guaranteeing that the research objectives and questions are effectively answered. In choosing a research method, the researcher must carefully contemplate the type of data they wish to assemble and the research plan that would best serve their research questions. As stated by Creswell (2014), "The choice of research method is dependent on the research questions and the researcher's epistemological stance". The current research is an experimental study in which the data is gathered using the SORS (survey of reading strategies) (Mokhtari & Sheory 2002), pre-test/post-test, and a teaching intervention program as research instruments, which will be discussed in greater detail later in this chapter. The researcher opted for an experimental type of research in order to accurately measure and observe the impact of reading strategies on students' reading skills.

2.3.1. Population of the Study

The population of a study refers to the group of individuals that the research is focused on. It is necessary to determine the population accurately to ensure that the study's results are pertinent and applicable to the target group. Saunders et al. (2018) claim that "a clearly defined population is essential to reduce bias and increase the generalizability of the research findings" (p. 202).

Furthermore, the size and traits of the population will affect the sampling methods used in the study. According to Creswell (2014),

The population is the entire group of people or objects that you are interested in studying. It is critical to define the population because it will determine how you select your sample and how you generalize your findings to other populations. (p. 199)

Overall, specifying the population of a study is a vital step in the research process, as it forms the groundwork for sampling, data collection, and generalization of findings. Therefore, the researcher determined the population of the study which is composed of the 1st year EFL students at Saida's University. The number of students at the time of study is 463.

2.3.2. Sample of the Study

The sample of a study is a subset of the population that is selected to participate in the research. Choosing a representative sample is required to ensure that the study's findings are generalizable to the larger population. There are several sampling methods available. According to Polit and Beck (2017), probability sampling methods, such as simple random sampling, stratified random sampling, and cluster sampling provide an equal chance of selection for each member of the population but are not so common. On the other hand, non-probability sampling methods, such as convenience sampling, purposive sampling, and snowball sampling, which are more commonly used, do not provide the same level of representativeness and are more susceptible to bias. However, non-probability sampling methods can be useful in specific circumstances, such as when studying hard-to-reach populations. As noted by

Creswell and Creswell (2018), "Sampling is critical to the success of any research project. The selection of a sample must be done carefully to ensure that it represents the larger population and that the findings can be generalized" (p. 8). In conclusion, selecting a representative sample is essential for the validity and generalizability of a study, and researchers should select their sampling method based on the research question, the population, and the available resources. Eighty-four (84) First-year students at the Department of English at the University of Saida were chosen through convenience sampling. Convenience sampling chooses participants of the target population who fulfil specific reasonable prerequisites, such as accessibility ease, geographical closeness, voluntariness to participate, and availability at a precise time (Dörnyei, 2007).

2.3.3. Study Settings

Study settings refer to the physical or virtual areas where the research is performed. The choice of study setting is vital to confirm that the research environment is suitable for the research question, population, and study design. Yin (2018) confirmed that "the choice of study settings is an important part of the design process, as it can affect the reliability and validity of the research findings." Similarly, the study settings can also affect the participants' conduct and answers, and researchers should consider the conceivable influence of the background on the study's results. According to Bryman (2016), "the study setting can be an important source of data, as it can provide insights into the social, cultural, and physical context of the research." Besides, the study settings can also influence the feasibility of data collection, particularly in

qualitative research. As Creswell (2018) noted "Qualitative researchers need to consider the setting in which data are collected and the implications of that setting for the data collected" (p. 200). Selecting relevant study settings is compulsory for the validity and reliability of the research. This study took place at the University of Dr. Moulay Taher-Saida - within the Department of English during the academic year 2022/2023.

2.3.4. Measures

The researcher implemented a research design aimed at analysing the effect of reading strategies in enhancing the reading skills of EFL learners at the University of Saida. The procedure implicated issuing a pre-test and the survey of reading strategies (SORS) to establish the baseline reading strategies used by proficient and unproficient readers, followed by a two-month instructional period in which learners were mainly handed out exercises with a number of reading strategies written next to it to assist them.

After the teaching intervention program, the researcher administered a post-test to compare the less proficient participants' post-test scores to their pre-test scores and resolve whether there was substantial progress in their reading scores. Throughout the research procedure, the researcher maintained valid and reliable records of all data collected, including the pre-test and post-test results, reading activities, and other pertinent information.

2.4. The Initial Study

Before launching the principal study, an initial study was performed in order to scrutinize the reading strategies used by Algerian EFL learners. For this

research, quantitative data are required in order to have a clear understanding of the learners' strategy use tendency at a large scale. The researcher used the Survey of Reading Strategies (SORS) developed by Mokhtari and Sheory in 2002), as the main research instrument for the initial study. Further details about the SORS will be discussed in the next section.
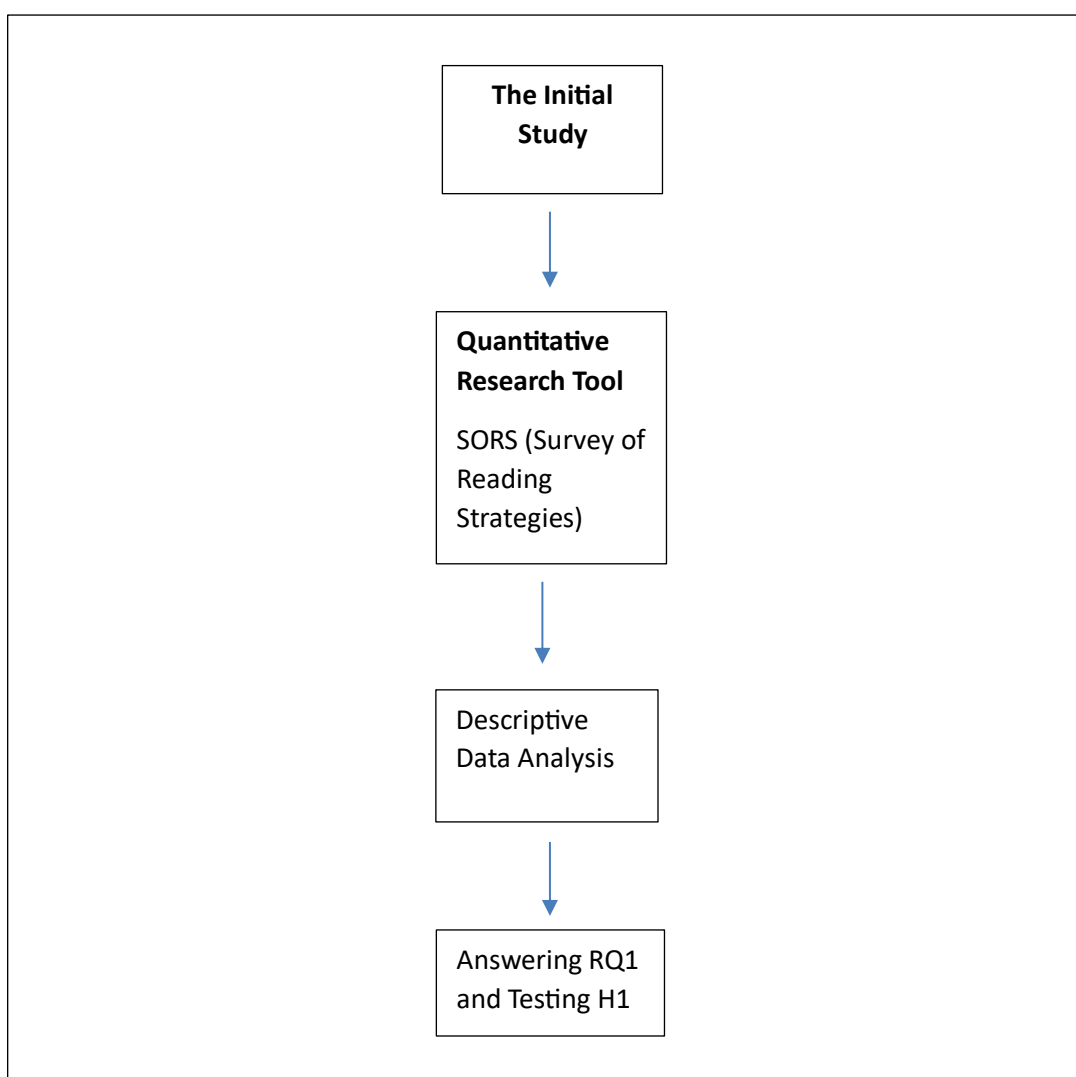
Figure 2. 2 Description of the Initial Study

2.4.1. Survey of Reading Strategies (SORS)

The Survey of Reading Strategies (SORS) is established based on The Metacognitive-Awareness of Reading Strategies (MARSI) initially created by Mokhtari and Sheory (2002) as an instrument for measuring native English-

speaking students' understanding and perceived use of reading strategies while reading educational or university related materials. In the same domain, the SORS estimates the variety and commonness of reading strategies that adolescents and adults utilize while reading ESL or EFL materials (Mokhtari & Sheory, 2002).

2.4.2. Description of the SORS

The SORS (Mokhtari & Sheorey, 2002) is an adjusted version of the MARSI survey (Mokhatri & Reichard, 2002) a survey that aims to measure native English-speaking readers' awareness of reading strategies when reading. Mokhtari and his associates were encouraged to design a precise inventory for investigating the metacognitive awareness of reading strategies among ESL and EFL readers due to research evidence of a favourable association between students' metacognitive awareness of reading strategies and academic success. Further, motivating was the scarcity of publicized tools developed especially to evaluate ESL/EFL students' metacognitive awareness of reading strategies and the fact that existing instruments do not cover some essential strategies in ESL/ EFL reading. Mokhtari and Sheory (2002) have made three major changes to the MARSI for it to be used with ESL/EFL readers:

1- They refined the language of items for them to be easier to understand by non-native English speakers.

2- They added two strategies that are not used by native-speaking readers but are often used in EFL/ESL reading (translating from one language to another, thinking in native and second languages while reading).

4- They withdrew two strategies (summarizing and discussing what one reads with others).

Following these changes, they pilot-tested the SORS among 147 ESL students learning in two universities in the USA. The results revealed the prevalent reliability of the instrument was high, which signifies that the survey has a reasonable level of internal consistency.

Although it was originally conceived for ESL learners, other researchers (e.g. Ilustre, 2011; Tsai, 2012) have found that the SORS is appropriate for analysing the metacognitive awareness of reading strategies in foreign language settings as well. The SORS consisted of five-point Likert 30 statements. Option (1) images the non-use of the strategy ("I never do this") while option (5) stands for high use of the strategy ("I always do this").

Three types of reading strategies are measured by the SORS, namely, global, problem-solving, and support reading strategies. A characterization of each type and its number of items is given below:

Global reading strategies: Consist of 13 items that mirror deliberately planned techniques that readers employ to monitor their reading (e.g., "I have a purpose in mind when I read", "I think about what I know to help me understand what I read", "I take an overall view of the text to see what it is about before reading it").

Problem-Solving reading Strategies: Consists of 8 items describing the techniques that readers employ to surmount barriers they encounter in comprehending textual data (e.g., "I try to get back on track when I lose

concentration", "When the text becomes difficult, I reread to increase my understanding").

Support reading strategies: Composed of 9 items reflecting strategies associated with actions or mechanisms that readers use to satisfactorily understand the text (e.g., "When reading, I translate from English into my native language. I use reference materials (e.g., a dictionary) to help me understand what I read.") (Mokhtari& Sheory, 2002).

2.4.3. The Administration and Interpretation of the SORS Results

The SORS can be allocated separately or in a group setting. The administration time ranged between 10- 20 minutes. Once the objective of the inventory and the significance of each response choice were clarified, students read each statement carefully and select the suitable answer according to their perceived use of reading strategies.

Thereafter, the respective scores of each strategy were registered and totalled to get a complete score for the whole tool, as well as a distinct total score for each classification of reading strategy (i.e. global, problem-solving, and support reading strategies). These scores helped to identify the level of prevailing metacognitive awareness of reading strategies and perceived use, as well as determining which group of strategies EFL readers declared using while reading L2 texts. The students' scores were analysed following the procedures supplied by Mokhtari, Sheory, and Reichard (2008). They specified three classes of reading strategy use: high (M= 3.5 or higher), moderate (M= 2.5-3.4), and low (M= 2.4 or lower). The general mean score reflects how frequently students inform using the strategies cited in the checklist, while the

average for each subscale demonstrates which group of strategies students report using while reading L2 materials.

2.4.4. Psychometric Properties of the SORS

Psychometric properties are the aspects of a psychological research instrument that reveal how well it measures what it is planned to measure. These comprise validity, reliability, and responsiveness to change. Validity refers to how satisfactorily the instrument measures the construct it is intended to measure, while reliability refers to the consistency and stability of the instrument's results over time and across various samples. Responsiveness to change refers to the instrument's capacity to detect consequential modifications over time, such as changes in an individual's conduct or performance. These properties are essential for guaranteeing the exactness, consistency, and effectiveness of the instrument. Researchers and practitioners assess and report on the psychometric properties of an instrument before utilizing it to ensure it is suited to their needs.

In terms of its psychometric properties, the SORS has experienced ample validation and reliability testing. Some of the fundamental psychometric properties of the SORS are as follows:

1. Validity: The SORS has been found to have good construct validity, meaning that it measures what it is intended to measure. Investigations have indicated that the SORS can distinguish between readers with dissimilar levels of reading proficiency and that it connects with additional measures of reading skill. A recent study by Algraini (2022) tested the validity of each item of the SORS using *"Pearson Correlation".* The results are displayed in the figure below:

Global reading strategies		Support reading strategies		Problem-solving strategies	
Items	Pearson correlation	Items	Pearson correlation	Items	Pearson correlation
1	0.760**	2	0.754**	7	0.717**
3	0.631**	5	0.677**	9	0.833**
4	0.763**	10	0.745**	11	0.882**
6	0.537**	13	0.738**	14	0.873**
8	0.381**	18	0.774**	16	0.507**
12	0.656**	22	0.628**	19	0.765**
15	0.738**	26	0.802**	25	0.889**
17	0.783**	29	0.586**	28	0.813**
20	0.654**	30	0.767**	-	-
21	0.716**	-	-	-	-
23	0.898**	-	-	-	-
24	0.901**	-	-	-	-
27	0.845**	-	-	-	-

Note: **. Correlation is significant at the 0.01 level.

Figure 2. 3 The Validity of Each Item Included in the Survey (SORS) Algraini (2022)

Algraini (2022) also tested the validity of each category included in the survey which are global reading strategies, problem-solving reading strategies, and support reading strategies. The results are displayed in the figure below:

Dimensions	Pearson correlation
Global reading strategies	0.962**
Support reading strategies	0.945**
Problem-solving strategies	0.957**

Note: **. Correlation is significant at the 0.01 level.

Figure 2. 4 The Validity of Each Item in the Survey (SORS) (Algraini 2022)

Moreover, Soliman (2019) utilized goodness-of-fit indices to evaluate how the SORS reasonably matches the observed data that was collected, in confirmatory factor analysis (CFA). These indices deliver quantitative measures of fit and aid to decide if the instrument accurately illustrates the

data. Generally used indices include the chi-square test, comparative fit index (CFI), Tucker-Lewis index (TLI), root mean square error of approximation (RMSEA), and standardized root mean square residual (SRMR). Each index provides additional details about model fit, and it is suggested to consider numerous indices and analogize them to specified criteria and theoretical concerns. Assessing model fit using these indices helps in specifying the adequateness of the instrument and its practicality for the surveyed data. Figure (6) summarizes the aforementioned goodness of fit indices calculated by Suleiman (2019).

Indicator	Description	Cut-off value for good fit
Chi square test ($\chi2$)	Assesses the discrepancy between the sample and fitted covariance matrices	p-value > .05
Root mean square error of approximation (RMSEA)	A parsimony-adjusted index, it favours models with fewer parameters.	RMSEA < .08
(S)RMR (Standardized) Root Mean Square Residual	Index of the difference between the residuals of the observed and predicted covariance matrices.	SRMR < .08
Comparative fit index (CFI)	Index that compares the fit between the tested model and independent or null model	CFI ≥ .90
Tucker–Lewis Index (TLI)	Index that compares the fit between the tested model and baseline or independent model	TLI ≥ .90

Figure 2. 5 Summary of Goodness of Fit Indices (Suleiman, 2019)

Based on the previously mentioned results, Suleiman (2019) concluded that the SORS is valid to use.

2. Reliability: The SORS is a reliable benchmark of reading strategies. Internal consistency reliability coefficients have varied from .79 to .96, meaning that the items on the SORS are positively correlated with each other. Algraini (2022) inspected the reliability of the subscales of this survey by using Cronbach's Alpha that showed the following results: 0.92 for global reading strategies, 0.91 for problem-solving reading strategies, and 0.88 for support reading strategies. Regarding the reliability of the all-around survey, it was 0.964 which indicated it was reliable.

3. Factor structure: The SORS has been found to have an unchanging factor structure, with three main factors: Global Reading Strategies, Support Reading Strategies, and Problem-Solving Strategies. These factors are invariant across diverse samples of readers and different languages.

4. Sensitivity to change: The SORS has been found to be susceptible to transformations in reading ability over time. Studies have demonstrated that scores on the SORS expand as readers become more skilled and that the SORS can detect changes in reading strategies as a result of intervention programs (Mokhtari & Sheory, 2001; Mokhtari & Sheory, 2002; Mokhtari & Reichard, 2002; Mokhtari & Thompson, 2006)

Overall, the SORS is a reliable and valid measure of reading strategies that can be used to evaluate individual disparities in reading behaviour and assess the efficacy of reading strategy instruction.

2.4.5. Data Analysis

Data analysis implicates mixed methods for extracting understandings and drawing findings from data. The descriptive analysis focuses on recapitulating and envisioning data to determine practices and trends. The inferential analysis employs statistical procedures to make predictions and draw conclusions about a more considerable population established on a sample. Exploratory data analysis helps in examining data, finding associations, and developing hypotheses. The predictive analysis utilizes documented data to make prognoses about future events or results. The diagnostic analysis strives to comprehend the reasons for a certain outcome or problem. The prescriptive analysis delivers suggestions or optimal resolutions based on available data. Text analysis involves extracting insights from textual data. Skilled data analysts use suitable approaches to acquire a thorough understanding of the data and support decision-making.

Data analysis encompasses a wide range of techniques. These techniques help in summarizing, visualizing, predicting, understanding reasons, delivering guidance, and extracting insights from different kinds of data. By using appropriate methods, data analysts can find beneficial information, support decision-making procedures, and drive significant results. For the initial study, the researcher opted for the descriptive analysis. It will provide the researcher with an overview of the participants' reading strategies, and help identify the most and least frequently used strategies. This will help answer the first research question and test the first hypothesis.

2.5. The Main Study:

The main study involved employing a pre-test/post-test methodology to evaluate the impact of reading strategies. The researcher intends to advocate the utilization of a pre-test to assess the proficiency level of the selected sample. Based on the acquired results, students will be categorized into two different groups: proficient readers and less proficient readers. Henceforward, both groups will undergo the Survey of Reading Strategies (SORS) to identify the specific reading strategies employed by each group. After this assessment, an instructional period, not exceeding two months, will be allocated to the less proficient readers during which they will engage in various activities centred around the reading strategies generally used by proficient readers. Ultimately, a post-test will be conducted for the less proficient readers, and the obtained scores will illuminate the magnitude of improvement resulting from the implementation of the reading strategies. This stage of the study will concern the testing of three hypotheses.
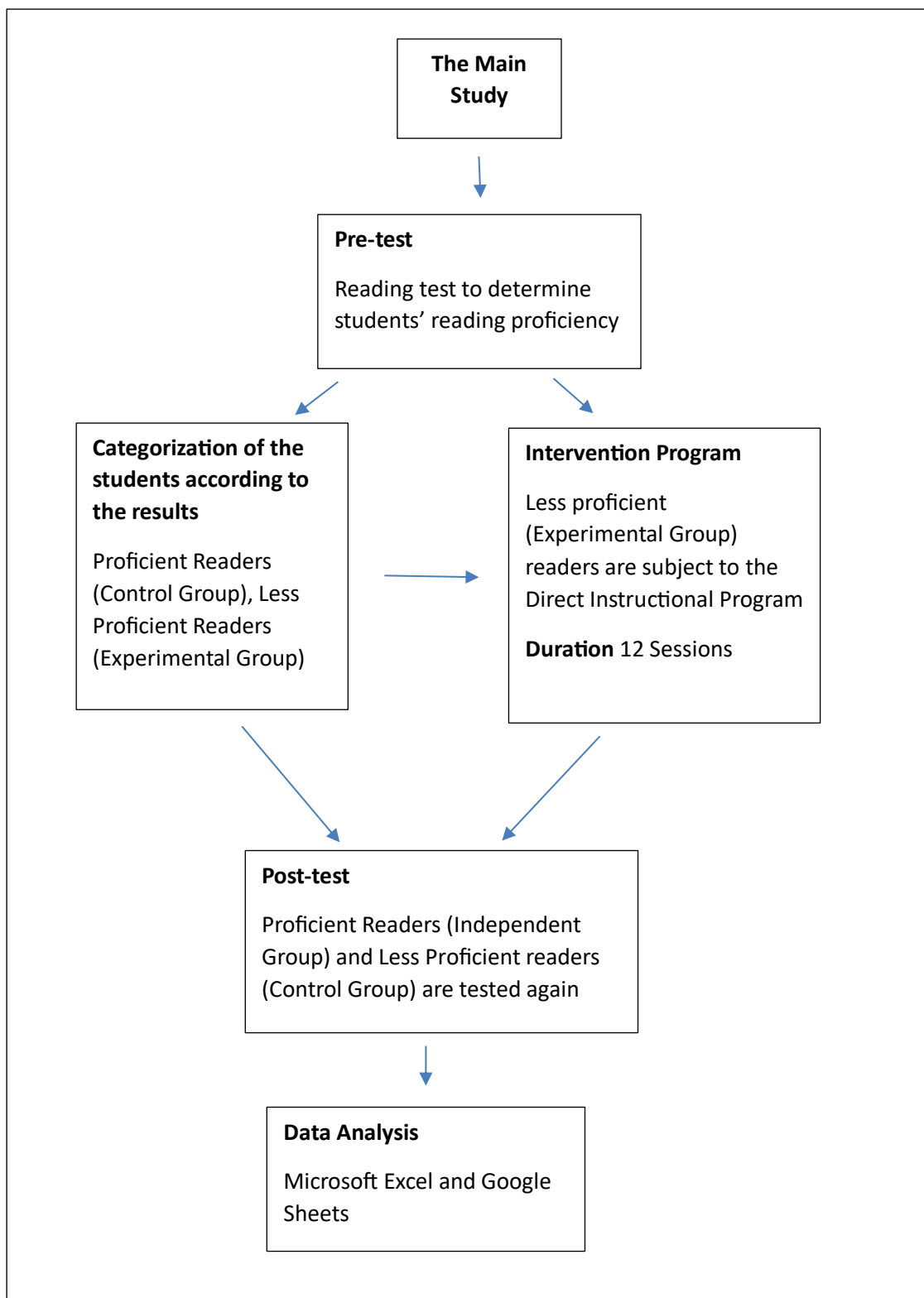
Figure 2. 6 Description of the Main Study

2.5.1. Pre/Post-Test:

The researcher favoured the pre-test and post-test methodology to measure the impact of reading strategies. It is a study design used to evaluate the effect of an intervention on a specific variable of interest (Reading Skills for instance). This process implicates measuring the variable of interest before and after the intervention to assess any differences that happen as a result.

Here's a step-by-step breakdown of the pre-test and post-test research methodology: Researchers start by picking a sample of participants who fulfil the measures for the investigation. To guarantee the validity of the results, randomization methods are often used to assign participants to different groups, such as an intervention group and a control group. However, the researcher assigned students to groups according to their level of reading proficiency (Proficient and Less Proficient Readers) using the SORS. Before the intervention occurs, researchers assemble data on the variable of interest from all participants. This pre-test measurement acts as a baseline or initial review of the participants' situation concerning the variable being studied (Reading Proficiency). The measurement can be acquired using different research tools. Following the pre-test measurement, the intervention is executed with the participants in the intervention group. The intervention can be any program, educational module, or empirical manipulation aimed at creating a specific impact on the variable being studied. The control group, on the other hand, generally does not receive the intervention and functions as a baseline for comparison. After the intervention has been completed, researchers collect data on the variable of interest from all participants, including both the intervention and control groups. This post-test measurement

permits researchers to spot any changes that have appeared as a consequence of the intervention. The same research tools employed in the pre-test measurement phase are usually used in the post-test measurement to assure consistency. Researchers examine the pre-test and post-test data to decide whether there have been any substantial differences in the variables of interest. Statistical techniques, such as t-tests, analysis of variance (ANOVA), or regression analysis, may be used to compare the pre-test and post-test measurements and examine the effect of the intervention on the variable. The researcher here chose to analyse data with "Google Sheets" and "Microsoft Excel". By comparing the pre-test and post-test results, researchers can estimate the significance, impact, or influence of the intervention on the variable being studied. This methodology assists researchers in evaluating whether the intervention has produced a consequent change and allows for concluding the causal connection between the intervention and the surveyed effects.

2.5.2. The Direct Instructional Program (Teaching Intervention)

As previously mentioned, the researcher decided to execute an intervention program following the pre-test implementation and assessment. The intervention program will be followed by the post-test measurement to assess the impact or changes resulting from the intervention. The researcher opted for an instructional program that did not involve a detailed explanation of each strategy and the way it is used, which can be time-consuming and confusing for less proficient readers. Using the SORS results, the researcher allocated a specific set of reading strategies (commonly used by proficient readers) every

reading session to be employed with selected reading activities. The duration of the instructional program is two months (12 sessions). The central aim of this intervention program is to increase students' metacognitive awareness of the reading process, introducing and acquainting them with a set of reading strategies and providing them with options to examine and practice these strategies while reading (Janzen & Stoller, 1998).

Moreover, an essential function of this program is to give them the possibility to transform those strategies into skills thanks to the continuous application and practice during the intervention program. In this regard, as we already mentioned earlier, students are given a specific set of strategies based on the SORS results (reading strategies commonly used by proficient readers). They were asked to apply a combination of reading strategies coming from that group to each reading activity for a duration of twelve (12) sessions.

Last but not least, the researcher pointed out the significance of reading strategies and they can be directly linked with accomplishment and progress in the reading process. The content of the first six (6) strategy training lectures is outlined in the next sections.

2.5.2.1. First Reading Lecture

In order to extend students' awareness of strategy use, the researcher instigated a discussion about what reading strategies were, why their understanding and practicing were important, and when they could be employed. The researcher made references to these elements of information not only in the first lecture but repeatedly to make sure students get acquainted with the notion of reading strategies. After the discussion and explanation, he

introduced a set of strategies and informed students about how highly efficacious they were. He presented each strategy found in that selection briefly. Then, the researcher was engaged in modelling those strategies based on tangible examples from a text entitled "Digital Habits across Generations" (British Council).

2.5.2.2. Second Reading Lecture

Each lecture began with a revision of the previous activity and finished with a brief account of what had been taught aiming at additional reading strategies consolidation. In this regard, after recalling the activity and information delivered in the earlier lecture, the researcher was implicated in offering students new reading activities. Unlike other intervention programs, the researcher made sure to provide students with an opportunity to apply the set of reading strategies in every session. In this lecture, the researcher used a text entitled "Innovation in business". During the activity, the researcher was present and answered students' questions about the strategy use process.

2.5.2.3. Third Reading Lecture

Unlike other sessions, this lecture involved the researcher working with students. More specifically, students were asked to practice their reading strategies and explicitly communicate which strategy was effective for today's activity and why. The text used for this activity was entitled "Robot Teachers" (British Council).

2.5.2.4. Fourth Reading Lecture

The text entitled "Social media influencers" was distributed to students, who were requested to practice strategies in a multiple-choice and matching

activity. In this session, students were asked to work together. The researcher separated students into groups of five (5). Each group was asked to select one exact strategy that appeared to be adequate for these chosen activities. Moreover, students were demanded to discuss the choices of their friends and determine if the selected strategies were efficacious.

2.5.2.5. Fifth Reading Lecture

During this lecture, learners were presented with a text labelled "The Legend of Fairies". They were restricted to only employing one reading strategy and adjusting it to the text and activities they had. Activities were in the form of true/false and multiple-choice questions. This activity was created to use and adapt each strategy adequately according to the reading material.

2.5.2.6. Sixth Reading Lecture

The text titled "Review: The Martian" was distributed to students. They were invited to use a reading strategy for each paragraph. The researcher here tried to incite learners to get used to employing multiple reading strategies in a single reading material in order for them to achieve optimal reading comprehension. It should be noted that throughout the sessions, the researcher's presence and intervention were unhurriedly removed conducting more additional autonomous practice (Person & Gallagher, 1983; Pearson & Dole, 1987). This activity was created to let students use a range of reading strategies by themselves without any assistance, achieve complete autonomy, and transform momentary reading strategies into lifelong reading skills, which is the ultimate goal of this study.

2.5.2.7. The Last Reading Session

In the last reading session, the researcher provided students with the possibility to blend all the reading strategies developed all along the intervention program. They were assigned a reading material named "Cultural Expectations and Leadership" (British Council). This time the researcher did not intrude at all in the teaching and reading process, in order to enable students to transmit the practiced reading strategies supplied at the commencement of the intervention program, transfer them to new reading situations, and improve their independence when dealing with academic or non-academic texts. More particularly, students were requested to apply and acclimate reading strategies to any reading text and activities. They were demanded to use them deliberately as if they were reading skills.

2.5.2.8. Reading Materials

Several factors, including the objective of the study, students' reading proficiency level, and interests, influenced the selection of texts utilized during the teaching intervention (Janzen & Stoller, 1998). Furthermore, the texts were tentatively picked to facilitate the practice of the given reading strategies. In the selection of the reading materials, the researcher tried to expose students to a scope of texts, such as academic, narrative, expository, argumentative, and descriptive, which will be advantageous for forthcoming language studies. The absolute majority of texts were taken from an educational website (British Council) seeking to employ authentic texts that would draw students' engagement and activate their prior knowledge. Moreover, the texts covered a variety of subjects permitting students' interests and preferences. Furthermore,

though students' reading level was taken into consideration, most of the texts used in the intervention program were of a more elevated reading ability level than students' one since strategy use is significantly essential when students have encountered reading problems (Bereiter & Bird, 1985; Dole et al., 1991; Urquhart & Weir, 1998). Texts that were fairly difficult but not overwhelmingly complicated were selected for the intervention program (Janzen & Stoller, 1998). Lastly, all the reading material titles and types of exercises were delivered to the learners who formed the sample of the study before the intervention program to get their reflections and confirm the choices made.

2.6. Ethical Considerations

Authorization to perform this investigation was acquired from the Faculty of Letters and Languages at the University of Dr. Moulay Taher–Saida at the commencement of the doctoral training program. Since the sample of the current study is undergraduate students at the Department of English, approval to execute the study was received from the Dean of the Institution of Letters and Languages at Dr. Moulay Taher University in Saida.

Similarly, declared permission was added to the survey prints, describing the intent of the study. The consent affirmed that participation is entirely voluntary. Anonymity and confidentiality were also proclaimed in the publicized permission; participants were assured that access to data is limited only to the researcher and the director of the study. The confidentiality of participants is mandated under the ethical conduct of academic research. The procedures of data collection are in accordance with acknowledged ethical

research standards; no information or characteristic that might lead to recognizing any participant was included in the instrument or the consent alike. Ultimately, all data was safely stored with the researcher during the duration of the study.

2.7. Conclusion

Quantitative research approaches are employed to test the hypotheses and answer the research questions of this study. This chapter demonstrated details about the research methodology adopted in the present study. This incorporates the research design, the population, and sample, the sampling technique used for this study, and the setting of the study. It presented a thorough description of the research tools, including how and where they have been validated, and the proportions of the measures which they evaluate.

This chapter has also described the procedures of data collection and analysis of both the initial study and the main study. The next chapter will demonstrate in detail the findings of the data analysis and their variations. The discussion of these findings will also be tackled.

CHAPTER THREE: Research Findings and Interpretations

3.1. Introduction

The earlier chapter examined the research methodology of this research, which implicates quantitative and qualitative research methods to answer the research questions and test the hypotheses of this study. The researcher deployed a survey, an instructional program, and a pre-test/post-test, through two phases, as research methods. In this chapter, the collected data is hence quantitatively and qualitatively dissected and deciphered based on the answers and the participants' test outcomes. Moreover, a detailed description is delivered in terms of data analysis, the results, and the associations between all variables of the study.

Also, the researcher will discuss the implications of the results of the participant's answers, in addition to their test results, with previous research. The analysis and discussion of the survey, pre/post-test results, and the direct intervention program attempt to determine the general impact of reading strategies, used and practiced over a period of time, on enhancing low-achieving learners' reading ability and skills

3.2. Results of the Initial Study

The quantitative data of the initial study was exclusively collected from the survey of reading strategies (SORS). The survey was strictly directed to students. Its primary aim was to identify the reading strategies used by Algerian EFL learners at a large scale. The data was analysed using graphs and pie charts. A thorough and detailed display of the acquired results will be shown in the next section.

3.2.1. Results and Interpretation of the SORS

The purpose of the students' survey is to maintain that reading strategies are indeed commonly and widely used by Algerian EFL learners. This survey operates as a pre-study questionnaire to deliver proof of the presence of reading strategies dedicated to the sample of the study, and to identify the types of reading strategies that are mostly used, and those that aren't, by students in general settings. The SORS instrument measures three general classifications of reading strategies: Global Reading Strategies (GLOB), Problem-Solving Strategies (PROB), and Support Reading Strategies (SUP). The questionnaire has 30 items, consisting of 13 items of GLOB, 8 items of PROB, and 9 items of SUP. The indicator of the survey can be seen below:

Global Reading Strategies (GLOB)	Strategies	Item of Questions
	Setting a purpose for reading.	1
	Using background knowledge.	3
	Previewing text.	4
	Checking if the text content fits the purpose	6
	Skimming to note	8
	Deciding what to read	12
	Using tables, figures, and tables.	15

	Using context clues.	17
	Using typographical aids.	20
	Analysing and evaluating.	21
	Checking the understanding.	23
	Guessing what the material is about.	24
	Checking if guesses are right.	27
Problem-solving Reading Strategies (PROB)	Reading slowly and carefully.	7
	Getting back when distracted.	9
	Adjusting reading speed.	11
	Paying closer attention when facing text difficulties.	14

	Pausing to reflect on reading.	16
	Visualizing information.	19
	Re-reading.	25
	Guessing unknown words.	28
Support Reading Strategies (SUP)	Taking notes while reading.	2
	Reading out loud.	5
	Underlining and circling.	10
	Using dictionaries.	13
	Paraphrasing.	18
	Going back and forth to find relationships.	22
	Asking self-questions.	26

	Translating English into a native language.	29
	Thinking about information in both English and mother tongue.	30

Table 2. 1 Illustration of the SORS

The researcher adopted and adapted the SORS using "Google Forms". The survey consisted of two main sections. The first section involved students' profiles, age, gender, and reading proficiency level (based on CEFR regulations). The second section integrated the reading strategies statements which are the ones displayed in Table 3.1. Concerning the validity and reliability of the survey, the researcher conducted a pilot study on twenty students, as well as a detailed and thorough review, correction, and validation with a panel of experts including the researchers' supervisor, and a group of experienced teachers and Ph.D. students. As per the reliability, the author, Mokhtari designed an instrument to estimate the extent of students' understanding of reading academic text with the title "Assessing Students' Metacognitive Awareness of Reading Strategies". The tool was then further expanded by him to evaluate ESL students' awareness of reading strategies. Consequently, the internal consistency reliability coefficients (as determined by Cronbach's alpha) for the overall score were reported as 0.89, which signified a suitable degree of consistency of the instrument. The reliability test

was carried out again to determine whether the survey was still reliable. Accordingly, the researcher tested the reliability of the instrument results showed an overall coefficient of 0.92, which means that this tool is reliable. Results of the survey's both sections will be displayed in the following sections.

3.2.2. Students' Profiles

The results from the survey of reading strategies deliver insights into the age dispersal of the participating students. The data is classified into three age ranges: 18-22, 22-26, and 26+ years old.
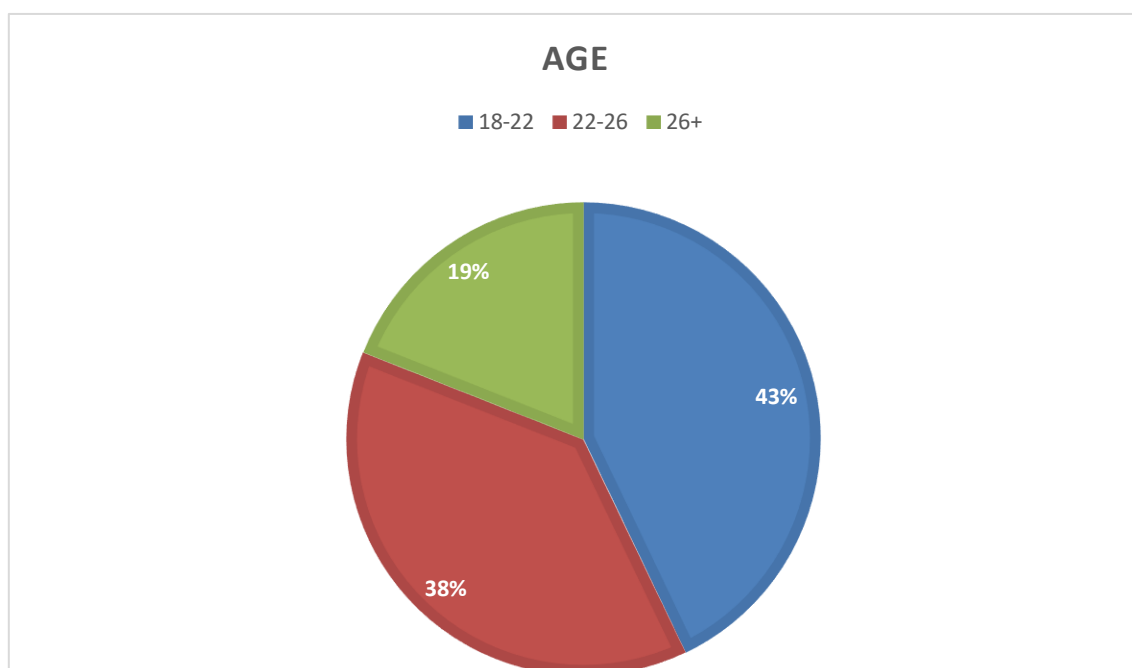
Figure 3. 1 1st Year EFL Students Age Range

Out of the (164) students selected for the sample, a total number of (84) responded to the online survey. The results are described as follows:

Age Range 18-22 (43%):

The largest age group among the surveyed students falls within the 18-22 age range, containing (36) 43% of the total respondents. This implies that a substantial part of the surveyed population consists of freshly graduating students. These individuals are alleged to be in their late teens or early twenties.

Age Range 22-26 (38%):

The second-largest group, accounting for (32) 38% of respondents, falls within the 22-26 age range. These individuals are narrowly older than the prior group and predominantly include postgraduate students with more experience. They are likely to be transitioning into more state-of-the-art phases of their education or early career stages.

Age Range 26+ (19%):

The smallest group, comprising (16) 19% of respondents, consists of individuals aged 26 and older. This age range encompasses a mixed group of students, potentially including graduate students, and working professionals seeking additional education.

To sum it up, the survey results demonstrate a varied diffusion of students across different age ranges, with a concentration in the 18-22 and 22-26 age groups.

GENDER

■ Male ■ Female

35.7%

64.3%
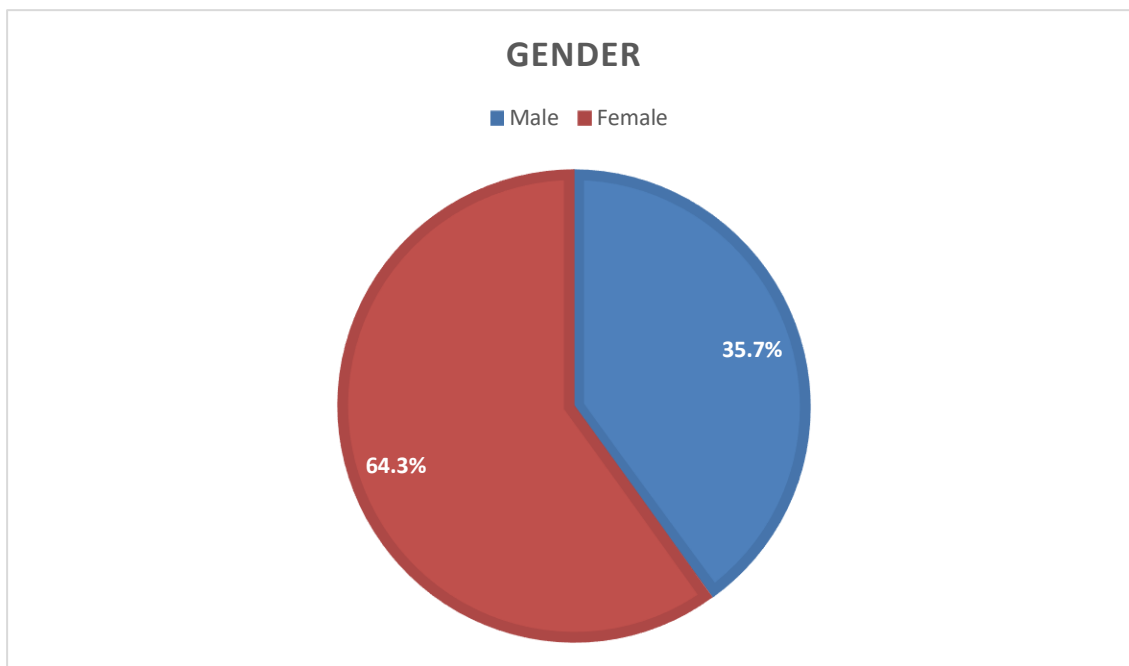
Figure 3. 2 1ˢᵗ Year EFL Students' Gender

Also, the results from the survey of reading strategies provide information about the gender distribution among the responding students. The data reveals that there is a significant dissimilarity in the gender composition, with the following analysis:

Females (64.3%):

The majority of respondents in the survey are female, making up (54) 64.3% of the total participants. This signifies that a noteworthy proportion of the surveyed population identifies as female. The larger representation of females in the study may reflect a combination of elements, including their higher enrolment rates in academic institutions, their disposition to partake in surveys, or a singular curiosity for the topic of reading strategies.

Males (35.7%):

The remaining (30) 35.7% of respondents in the survey identify as male. While this group is smaller in ratio compared to females, it still constitutes a

considerable part of the surveyed population. The presence of male participants indicates that reading strategies are relevant and of interest to a diverse range of students, regardless of gender.

In summary, the survey results underscore a gender distribution where females make up the majority of respondents at 64.3%, while males constitute 35.7% of the surveyed population.
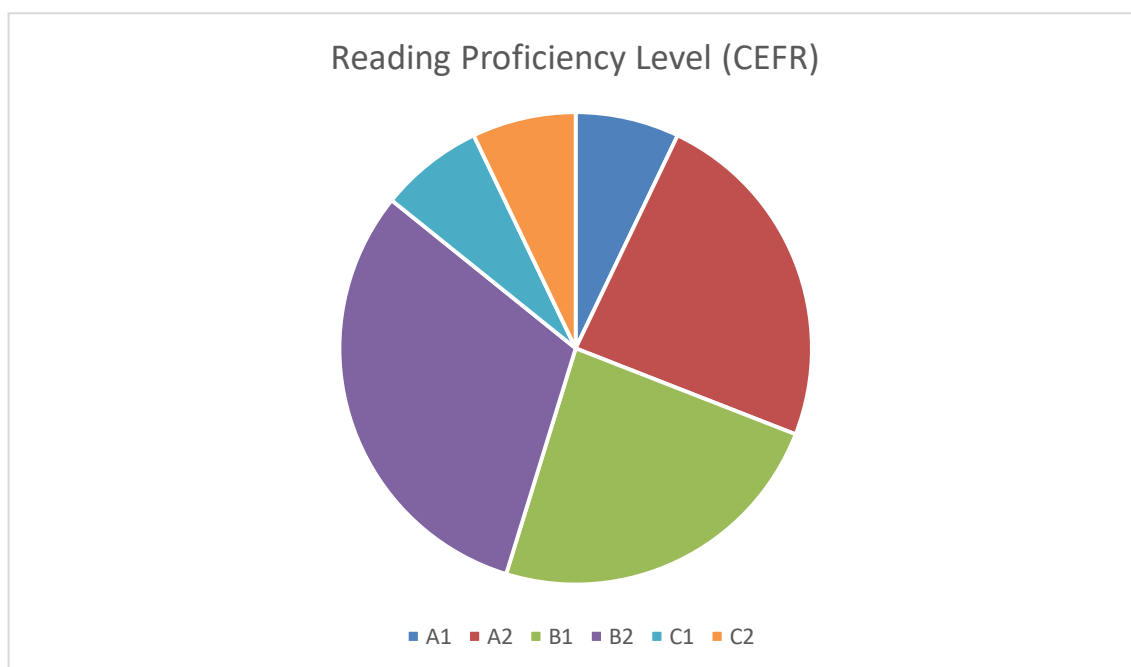
Figure 3. 3 Students' Reading Proficiency Level

Moreover, the data gathered from the SORS provide insights into the students' reading proficiency levels. The results were categorized according to the Common European Framework of Reference for Languages (CEFR) levels. Here's an illustration of the findings:

A1 (7.10%):

A small percentage, 7.10% of the surveyed students, falls within the CEFR level A1. This level generally designates beginners or individuals with very fundamental reading skills. These students may struggle with more intricate texts and require foundational reading strategies to build their reading comprehension.

A2 (25.8%):

The second largest group, including 25.8% of the respondents, is at CEFR level A2. This level characterizes elementary proficiency, showing that these students have advanced beyond basic reading but may still need help and guidance to read more challenging texts effectively.

B1 (23.8%):

Another 23.8% of the students are at CEFR level B1. At this level, students are assumed intermediate readers, and they own a more concrete basis in reading comprehension and vocabulary. They can engage with a wider range of texts but may benefit from additional expansion of their reading strategies.

B2 (31%):

The largest group among the surveyed students, comprising 31%, is at CEFR level B2. These students are considered upper-intermediate readers and likely have a satisfactory grasp of reading comprehension. They can navigate relatively tricky texts but may still strive to refine their reading strategies for more developed materials.

C1 (7.1%):

A smaller percentage, 7.1%, falls into CEFR level C1, which represents advanced proficiency in reading. These students can manage intricate texts

with relative ease and may need reading strategies that cater to more nuanced factors of comprehension, such as critical analysis and synthesis of information.

C2 (5.2%):

The smallest group, including 7.2% of the students, is at CEFR level C2, symbolizing the highest level of reading proficiency. Students at this level are regarded as near-native or skilled readers. Their reading strategies may focus on advanced skills, such as literary analysis and academic research.

In summary, the survey results divulge a varied distribution of students across various CEFR reading proficiency levels, with the preponderance falling into the B2 and A2 categories. This diversity accentuates the significance of delivering a scope of reading strategies and materials that cater to students at dissimilar proficiency levels, guaranteeing that each group can improve their reading skills

3.2.3. Reading Strategies

In the second section of the survey, the researcher provided students with a number of statements representing reading strategies (30). Each statement was followed by five (5) subscales going from "never" to "always". Students were asked to choose an answer according to their frequency of strategy use. The results of each reading strategies category will be displayed in the following bar graphs.

3.2.3.1. Global Reading Strategies

The two following bar graphs illustrate the results of strategy use frequency for each reading strategy included in Mokhtari and Sheory's (2002) first category:

Figure 3. 4 Global Strategies Frequency of Use (1)
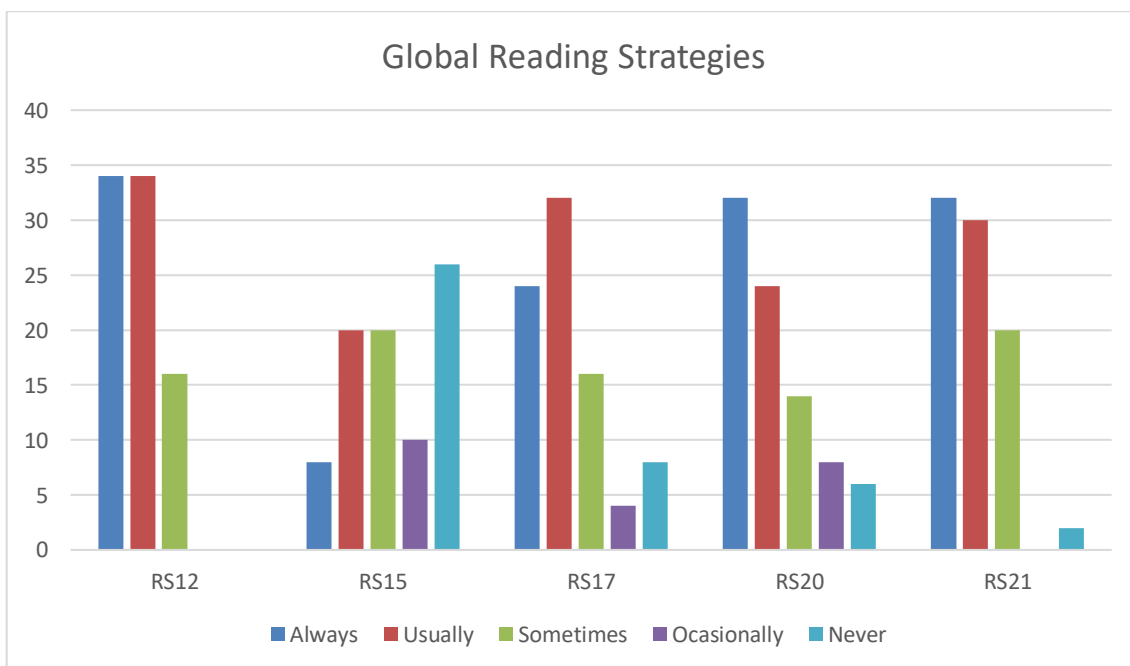
Figure 3. 5 Global Reading Strategies Frequency of Use (2)

Global Reading Strategies
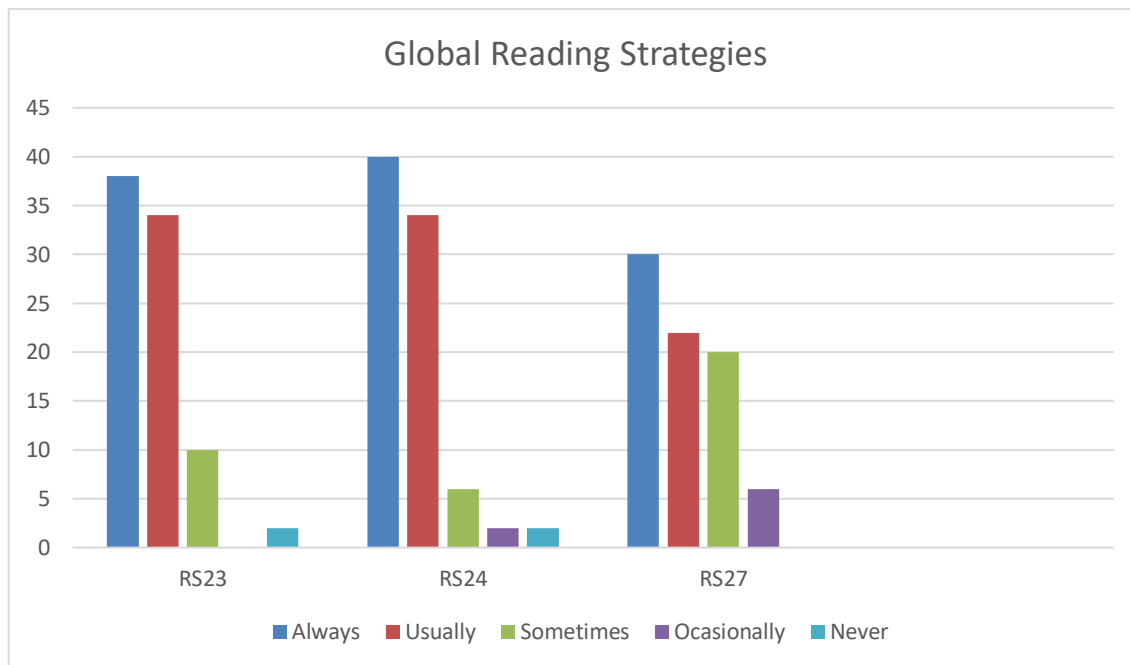
Figure 3. 6 Global Reading Strategies Frequency of Use (3)

Analysis of the bar graphs reveals that RS1 (Reading Strategy 1), RS3, RS4, RS6, RS20, RS21, RS12, RS23, and RS24 are the statements most frequently picked among the thirteen possibilities delivered. Respondents predominantly selected "Always" and "Usually" as their primary response scales for these strategies. In contrast, the results for RS27, RS17, and RS8 show a relatively consistent distribution among response scales. Notably, RS15 emerged as the least utilized statement, with "Never" being the most generally chosen response scale.

3.2.3.2. Problem-Solving Reading Strategies
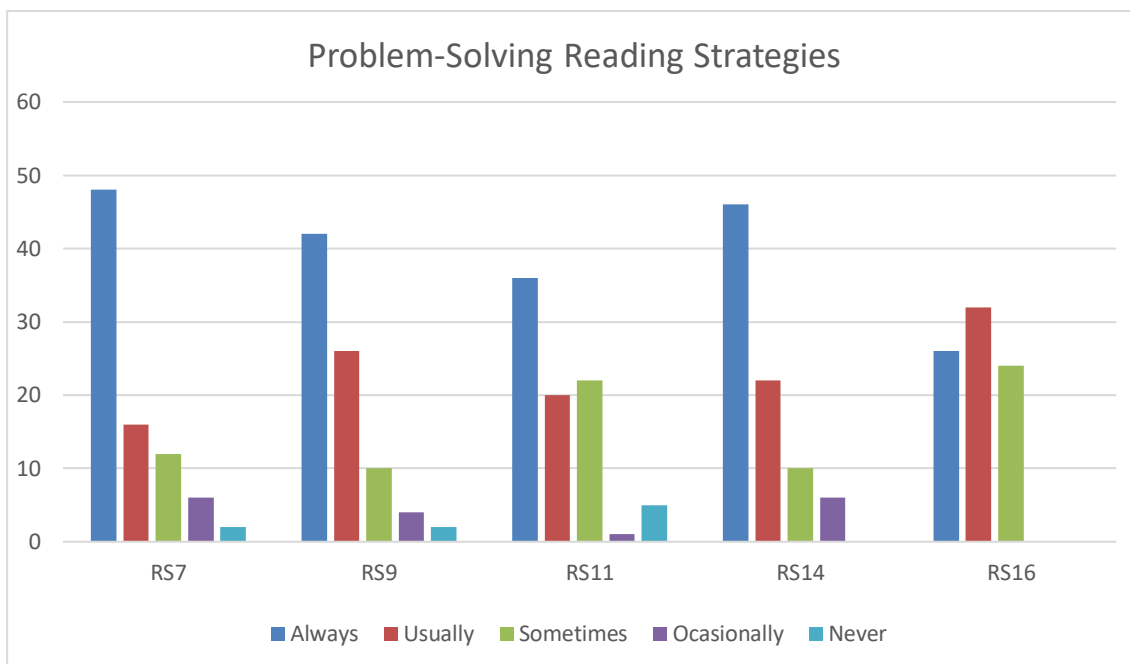
Figure 3. 7 Problem-Solving Reading Strategies Frequency of Use (1)
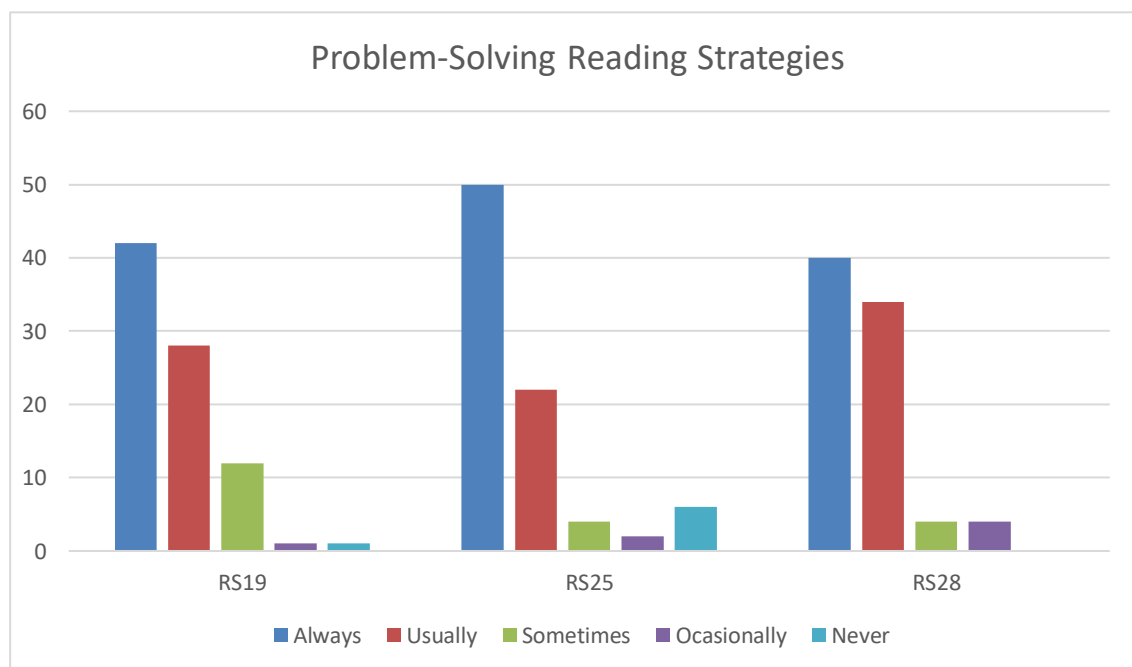
Figure 3. 8 Problem-Solving Reading Strategies Frequency of Use (2)

The findings indicate that RS7, RS9, RS14, RS19, RS25, and RS28 are the most repeatedly chosen among the eight presented reading strategies. Contrariwise, RS16, and RS11 display relatively proportional answer allocations across the five scales. Noticeably, this category of strategies stands out for having the highest rate of selection for the "Always" scale, with an average of over forty pickings for each of the six statements (RS7, RS9, RS14, RS25, RS28) falling within this category.

3.2.3.3. Support Reading Strategies
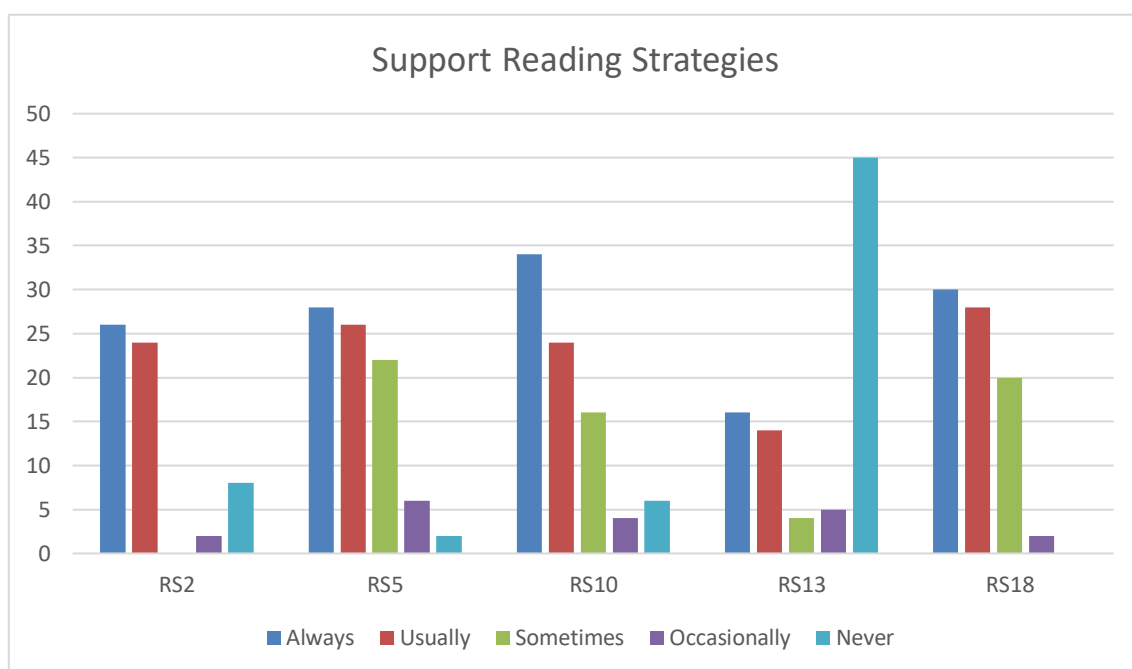
Figure 3. 9 Support Reading Strategies Frequency of Use (1)
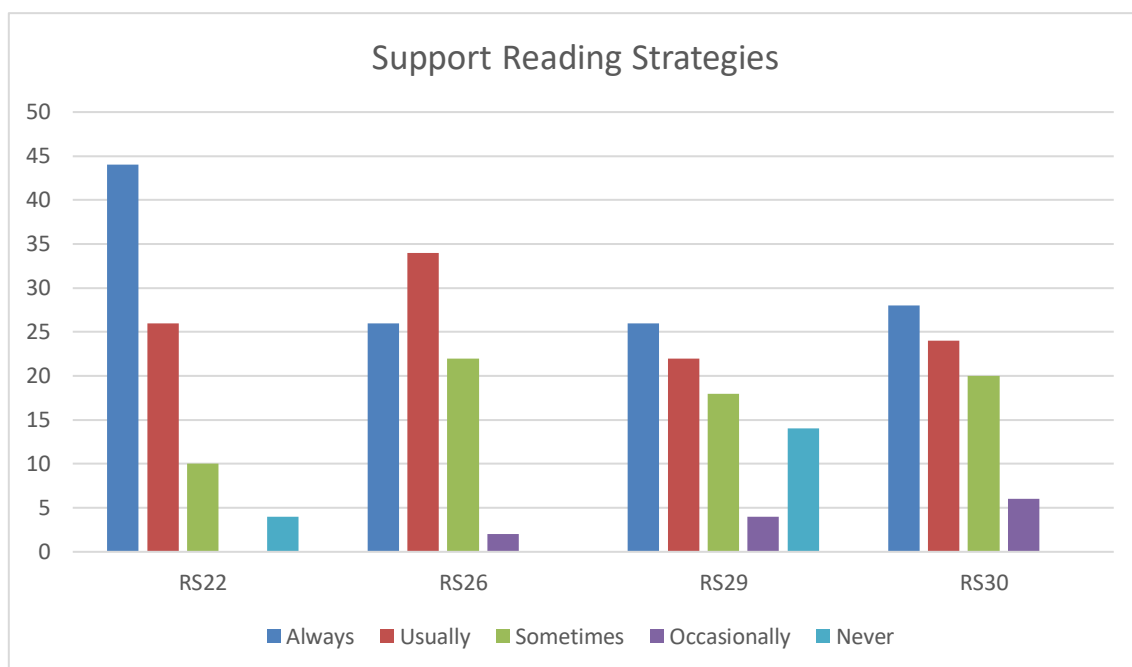
Figure 3. 10 Support Reading Strategies Frequency of Use (2)

In the final category, the data highlights RS2, RS10, RS18, and RS22 as the most often picked statements among the nine options supplied. Contrarily, RS26, RS29, and RS30 demonstrate moderately invariant response issuances across the five scales. Conspicuously, this category of strategies stands out for having the highest rate of selecting for the "Never" scale, with RS13 and RS29 averaging nearly thirty (29.5) picks for this particular scale.

3.3. Results of the Main Study

The current study implicated quantitative results consisting of four batches of data; the pre-test results, SORS results for the experimental group (experimental and control group), results of some reading activities performed during the direct instructional period for the experimental group, and the post-test results. Regarding the statistical analyses of the study, Microsoft Excel

2021, and Google Forms Sheets were exploited. In the following passages, a detailed illustration of the statistical procedures used to examine the data of this study is delivered. Furthermore, a concise answer to each research hypothesis is also given.

3.3.1. Results of the Pre-Test:

This section displays the outcomes of the pre-test conducted utilizing the British Council's reading assessment framework. By delving into the results of this preparatory evaluation, we acquire invaluable acuities into participants' initial reading abilities and set the stage for a sweeping investigation of their linguistic improvement and evolution. The analysis presented herein not only sheds light on the present state of participants' reading levels but also acts as a foundational connection point for the subsequent phases of this study. Through a careful analysis of these pre-test results, we pave the way for a more profound acquaintance with the dynamics of language acquisition and the efficacy of the teaching intervention program used.

The method of preference for choosing participants for the pre-test evaluating the reading proficiency of first-year Algerian English as a Foreign Language (EFL) students is simple random sampling. This procedure guarantees an impartial and unbiased presentation of the first-year EFL cohort, as each student has an identical chance to be incorporated into the sample. While this method may not capture subgroup nuances, its clarity aligns well with the study's experimental nature. The focus is on attaining acuities into the reading proficiency levels of the selected first-year promotion, with the findings informing future analyses and interventions. The utilization of simple

random sampling highlights the responsibility for transparency and precision within the research context's limitations. Out of the eighty (84) students who took part in the initial study, forty (40) learners were selected to take the reading proficiency level test. The pre-test was performed online using the one which is available on the British Council's app entitled "English Score", or their website. The researcher monitored the test with the help of the "Google Meet" Visio conference program. The duration of the evaluation was forty (40) minutes. Learners were given codes starting from SD1 to SD40. The following table displays the pre-test results:

Students' Codes	Pre-test Scores	Reading Proficiency Level
SD1	280/600	A2
SD2	315/600	B1
SD3	340/600	B1
SD4	401/600	B2
SD5	202/600	A2
SD6	360/600	B1
SD7	478/600	B2
SD8	289/600	A2
SD9	420/600	B2
SD10	545/600	C1
SD11	388/600	B1
SD12	491/600	B2

SD13	208/600	A2
SD14	394/600	B2
SD15	459/600	B2
SD16	221/600	A2
SD17	529/600	C1
SD18	516/600	C1
SD19	353/600	B1
SD20	425/600	B2
SD21	520/600	C1
SD22	249/600	A2
SD23	505/600	C1
SD24	318/600	B1
SD25	437/600	B2
SD26	405/600	B1
SD27	238/600	A2
SD28	220/600	A2
SD29	502/600	C1
SD30	535/600	C1
SD31	422/600	B2
SD32	301/600	B1
SD33	509/600	C1
SD34	230/600	A2
SD35	476/600	B2
SD36	212/600	A2

SD37	537/600	C1
SD38	410/600	B2
SD39	287/600	A2
SD40	498/600	C1

SD: Student; A1, A2, B1, B2, C1, C2 (CEFR)[1]

Table 3. 1 Results of the Pre-Test

Scores of the pre-test show that the students' proficiency levels vary from A2 to C1, exhibiting dissimilar levels of reading comprehension and language proficiency. Here's an overview of the results:

a) A2 Level (Low Achieving Readers)

A considerable part of the respondents, representing 27.5% of the sample (11 students out of 40), fall within the A2 level of reading proficiency. These students are at an elementary phase of language development. Their pre-test scores, ranging from 202 to 289 out of 600, indicate that they possess a basic knowledge of reading comprehension. At this level, they are capable of understanding easy texts and pulling explicit data. Nonetheless, they may experience complications with more intricate vocabulary and nuanced ideas.

b) B1/B2 Level (Intermediate)

Roughly 17.5% of the respondents (7 students out of 40) present an intermediate level of reading proficiency, classified as B1. Their pre-test scores, which range from 301 to 360 out of 600, indicate an average level of competence in reading comprehension. These students are capable of understanding and extracting details from moderately problematic texts. They

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[1] CEFR framework. Council of Europe (2001) *Common European Framework of Reference for Languages: learning, teaching, assessment.*

can get the major ideas and some supporting details. Yet, they may still face challenges when dealing with developed vocabulary and abstract visions.

Furthermore, A noteworthy percentage of the respondents, comprising 22.5% of the sample (9 students out of 40), fall within the B2 level of reading proficiency. Their pre-test scores, ranging between 364 and 478 out of 600, reveal a commendable grasp of more challenging texts. At this upper intermediate level, students can comprehend both central ideas and finer points, and they are more comfortable with diverse vocabulary and tricky concepts.

c) C1 Level (High Achieving Readers)

Concerning this level, an important portion of the learners, accounting for 32.5% of the sample (13 students out of 40), have reached an advanced level of reading proficiency, categorized as C1. Their pre-test scores, which range from 498 to 545 out of 600, demonstrate a high level of skill in reading comprehension. These students are experienced at navigating and understanding elaborate texts, including those with unclear thoughts and sophisticated vocabulary.

Afterward, the experimental group was formed with A2-level learners based on their pre-test scores (202 to 289 out of 600), while the control group consisted of C1-level learners determined by their pre-test scores (498 to 545 out of 600). This division permitted the researcher to compare and evaluate the influence of the direct instructional program and reading strategies on low-achieving readers. Noticeably, the experimental group represents those at a lower proficiency level (A2), and the control group represents those at a higher proficiency level (C1). The groups are presented in the table below:

The Control Group	Reading Proficiency Level	The Experimental Group	Reading Proficiency Level
SD10	C1	SD1	A2
SD17	C1	SD5	A2
SD18	C1	SD8	A2
SD21	C1	SD13	A2
SD23	C1	SD16	A2
SD29	C1	SD22	A2
SD30	C1	SD27	A2
SD33	C1	SD28	A2
SD37	C1	SD34	A2
SD40	C1	SD36	A2
		SD39	A2

Table 3. 2 Formation of the Control/Experimental Group

Noteworthy, the researcher employed the stratified sampling method. This approach ensures that each subgroup of the needed proficiency levels is adequately represented in the study.

3.3.2. Results of the SORS (Control Group)

The researcher utilized the Survey of Reading Strategies (SORS) this time solely for the Control group. By administering the SORS to this group, the researcher sought to gain insight into the precise strategies that proficient

readers tend to favour when approaching reading tasks. This approach permitted an attentive analysis of the reading conducts and preferences of high-achieving readers. The primary objective of this approach is to specify and collect the reading strategies, incorporate them into the direct instructional program, and assess their impact on the experimental group, which consists of low-achieving readers. The results displaying the reading strategies that were highly selected by the control group are presented in the bar graph below:
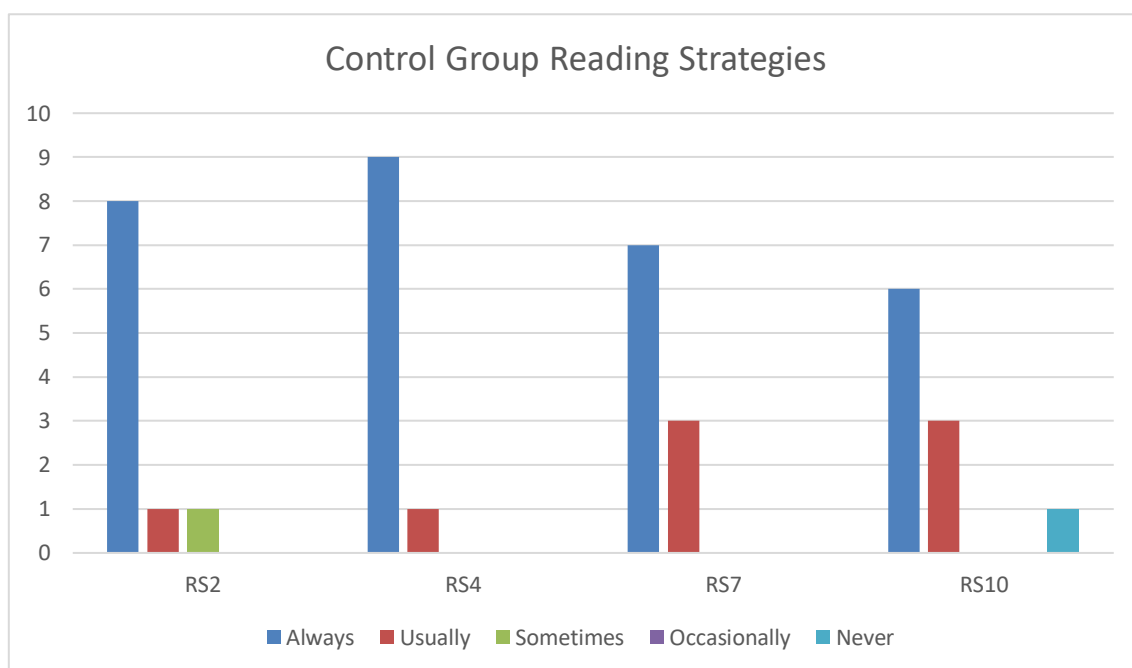
Figure 3. 11 Reading Strategies Used by Control Group (1)
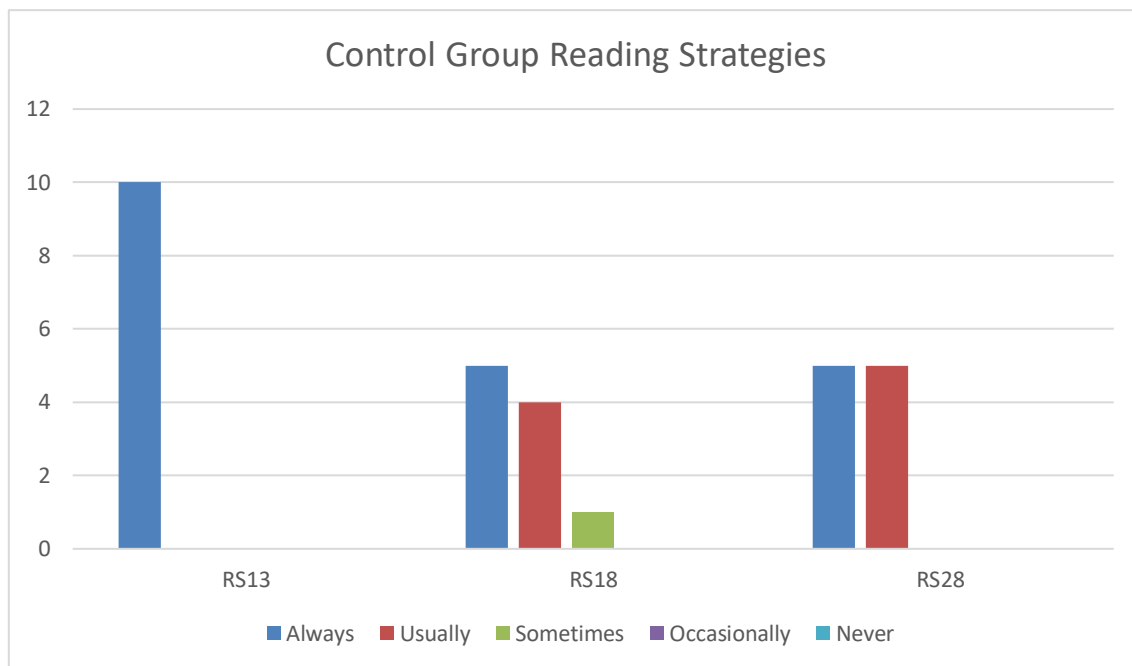
Figure 3. 12 Reading Strategies Used by Control Group

The data shown in the two bar graphs reveal that the control group, constituted of proficient readers, shows a noticeable preference for seven (RS2, RS4, RS7, RS10, RS13, RS18, RS28) out of the thirty delivered reading strategies. Notably, RS13 and RS4 arise as the most frequently selected statements among these seven strategies. Hence, the group of strategies that will be used for the direct instructional program are described as follows:

- **RS2:** I take notes while reading to help me understand what I read.

- **RS4:** I take an overall view of the text to see what it is about before reading it.

- **RS7:** I read slowly and carefully to make sure I understand what I am reading.

- **RS10:** I underline or circle information in the text to help me remember it.

- **RS13:** I use reference materials (e.g., a dictionary) to help me understand what I read.

- **RS18:** I paraphrase (restate ideas in my own words) to better understand what I read.

- **RS28:** When I read, I guess the meaning of unknown words or phrases.

This set of reading strategies will be used during the total duration (12 sessions) of the direct-instructional program. Learners belonging to the experimental group will be required to apply and utilize these strategies.

3.3.3. Results and Interpretation of the Direct Instructional Program (Teaching Intervention)

The researcher executed a teaching intervention program, referred to as the 'Directional Instructional Program,' owing to its explicit and clear presentation of the set of reading strategies intended for student use. The program spanned twelve (12) sessions, with the vast majority accomplished online through platforms such as 'Zoom' and 'Google Meet.' The following sections will present the results from the first, sixth, and final reading sessions. All of the reading activities are noted on a scale of 1-12.

3.3.3.1. Results of the First Reading Session

In the first reading session, which was based on the British Council's reading lesson titled "Digital Habits across Generations," the researcher observed some meaningful insights among the participants. This session strived to provide an initial understanding of the experimental group's engagement with the text and their capacity to use the set of reading strategies effectively.

The control group was not restrained by any set of strategies or instructions. The results of the activities are presented in the table below:

The Control Group	Reading Activities Scores	The Experimental Group	Reading Activities Scores
SD10	9/12	SD1	4/12
SD17	11/12	SD5	5/12
SD18	10/12	SD8	3/12
SD21	12/12	SD13	6/12
SD23	11/12	SD16	4/12
SD29	9/12	SD22	2/12
SD30	11/12	SD27	5/12
SD33	11/12	SD28	3/12
SD37	10/12	SD34	2/12
SD40	12/12	SD36	5/12
		SD39	3/12

Table 3. 3 Results of the 1st Reading Session

Results of the activities show that the control group consistently achieved well across all twelve activities, attaining scores ranging from 9 to 12 out of 12. This group demonstrated a strong understanding of the reading material and effectively applied their reading strategies. Conversely, the experimental group exhibited average to poor results, with scores ranging from 2 to 6 out of 12 across the identical group of exercises. The low-achieving readers in the

experimental group faced challenges in understanding the text and applying the set reading strategies effectively.

3.3.3.2. Results of the Sixth Reading Session

Halfway through the intervention program, in the sixth reading session, which was based on the British Council's reading lesson titled "The Martian," the researcher observed considerable advancements compared to the first five sessions, specifically within the experimental group. This session aimed to assess the impact and correct use of each reading strategy autonomously without the intervention of the teacher. The results of the reading activities are presented in the table below:

The Control Group	Reading Activities Scores	The Experimental Group	Reading Activities Scores
SD10	10/12	SD1	7/12
SD17	11/12	SD5	6/12
SD18	12/12	SD8	8/12
SD21	9/12	SD13	5/12
SD23	10/12	SD16	6/12
SD29	11/12	SD22	7/12
SD30	8/12	SD27	8/12
SD33	9/12	SD28	6/12
SD37	12/12	SD34	7/12
SD40	10/12	SD36	5/12

		SD39	4/12

Table 3. 4 Results of the 6th Reading Session

In the context of the 6th reading session, the results for both the control and experimental groups have become more evident, shedding light on the improvement made by these students in their reading activities. This session marked a pivotal moment in the study, delivering beneficial insights into the efficacy of the instructional program. The control group continued to excel in their reading activities during the 6th session. Their performance stayed invariably robust, with scores varying from good to excellent. These students showcased a profound understanding of the reading strategies introduced in the program. On the other hand, the experimental group demonstrated a conspicuous progress compared to their performance in earlier sessions. Although they began with scores ranging from bad to average in the earlier sessions, the 6th reading session saw a considerable boost in their performance.

3.3.3.3. Results of the Finale Reading Session

At the culmination of the study, the researcher reached the final reading session, which was centred around the British Council's Reading Lesson titled "Cultural Expectations and Leadership." This session operated as a litmus test to measure the progress and development of the experimental group over the course of the entire program. The results were nothing short of remarkable, showcasing significant development and mastery of reading strategies compared to their initial performance in the first 11 sessions. Noteworthy, as previously mentioned in the methodology section, the teacher did not interfere

in any of the reading activities during this session. The outcomes of the reading activities are shown in the following table:

The Control Group	Reading Activities Scores	The Experimental Group	Reading Activities Scores
SD10	12/12	SD1	10/12
SD17	10/12	SD5	7/12
SD18	9/12	SD8	8/12
SD21	11/12	SD13	7/12
SD23	10/12	SD16	8/12
SD29	9/12	SD22	11/12
SD30	10/12	SD27	12/12
SD33	11/12	SD28	8/12
SD37	9/12	SD34	7/12
SD40	10/12	SD36	8/12
		SD39	7/12

Table 3. 5 Results of the Final Reading Session

The results show that the control group's scores were consistently good to excellent, demonstrating their commitment to the reading sessions and their ability to absorb and apply the strategies effectively. Among these students, two individuals, SD27 and SD22, showcased outstanding reading proficiency, achieving perfect scores of 12/12.

On the other hand, the experimental group demonstrated apparent progress since the initial reading sessions. In this final session, the majority of

experimental group students reached scores in the "Good" range, showing that they had effectively implemented the set of strategies provided throughout the study. Exceptionally, three students in the experimental group, SD10, SD21, and SD33, performed remarkably well, earning "Excellent" scores of 12/12.

3.3.4. Classroom Observation

During the period of this research study, classroom observations played a pivotal position in estimating the efficacy of the direct instructional program, and reading strategies, mainly in the context of the experimental group. These observations were achieved assiduously over the span of twelve sessions, allowing the researcher to acquire invaluable insights into the dynamics of the learning environment, the student's response to strategy use, and their ability to transform it into effective reading skills. The observations were carried out with preciseness and objectiveness, concentrating on different fundamental parameters such as student engagement, participation, awareness levels, and the prevalent classroom environment. Each session delivered a unique chance to detect the gradual improvement and development of the experimental group as they engaged with the British Council's reading activities.

Throughout the program, it became apparent that the experimental group demonstrated augmented levels of attention and engaged participation compared to their initial baseline performance. Students showed a growing enthusiasm for their reading abilities and demonstrated a more in-depth understanding of the materials delivered.

Notably, the classroom environment was marked by elevated willingness and a tangible enthusiasm to learn. The observations also permitted the

researcher to pinpoint the exact areas where the direct instructional program had a noteworthy impact. These included improved reading skills, enhanced comprehension, and a more extensive vocabulary repertoire. Furthermore, the teacher's role in promoting these positive changes was readily apparent, emphasizing the importance of the provided reading strategies.

In conclusion, the classroom observations conducted throughout the duration of the program for the experimental group supplied a valuable understanding of the progress and efficacy of the intervention. These observations acted as a vital element in the exhaustive assessment of the program's impact on students' reading proficiency.

3.3.5. Results of the Post-Test

This evaluation aspired to gauge the improvement and advancements in reading skills and comprehension that students had attained following their participation in the investigation. For the control group, which consisted of 10 students, the post-test was designed to assess their reading abilities after receiving orthodox reading instruction. These students underwent a conventional curriculum without any supplementary interventions or modifications. The post-test results for the control group were employed as a baseline. Contrarily, the experimental group, comprising 11 students, received targeted interventions and instruction designed to enhance their reading skills and strategy use. The post-test issued to the experimental group was planned to measure the effectiveness of the direct instructional program and the set of reading strategies in improving their reading abilities. The results of the post-test are presented in the table below:

The Control Group	Post-Test Results	Reading Proficiency Level	The Experimental Group	Post-Test Results	Reading Proficiency Level
SD10	543/600	C1	SD1	392/600	B1
SD17	525/600	C1	SD5	385/600	B1
SD18	535/600	C1	SD8	400/600	B2
SD21	550/600	C1	SD13	375/600	B1
SD23	512/600	C1	SD16	410/600	B2
SD29	530/600	C1	SD22	395/600	B1
SD30	540/600	C1	SD27	440/600	B2
SD33	545/600	C1	SD28	360/600	B1
SD37	548/600	C1	SD34	370/600	B1
SD40	552/600	C1	SD36	375/600	B1
			SD39	330/600	B1

Table 3. 6 Results of the Pre-Test

The post-test results indicate that the control group's scores kept a remarkable similarity compared to their pre-test performance. This denotes that the control group's reading proficiency stayed fairly consistent throughout the course of the study. The control group achieved post-test scores ranging from 525 to 552, exhibiting a good to excellent level of reading proficiency, which aligns closely with their initial scores.

Contrarily, the experimental group displayed meaningful progress in their post-test scores compared to their pre-test performance. These results imply that the direct instructional program had a favourable impact on the experimental group's reading skills. Post-test scores for the experimental group varied from 330 to 410, illustrating a range from good to fair reading proficiency.

3.4. Conclusion

This chapter includes the results and interpretation of the measures of the present study. The data was scrutinized and analysed quantitatively for the sake of responding to the research questions and testing the hypotheses of this study. The researcher embarked on a comprehensive analysis of the students' Survey of Reading Strategies (SORS), which provided practical insights into their reading strategies. This initial study operated as a foundational step in understanding the students' existing reading proficiency and reading strategy use. For the main study, to guarantee a relentless and impartial review of the intervention's effectiveness, the researcher utilized a pre-test as an initial benchmark. This allowed for a baseline assessment of the previously selected sample's reading abilities before the direct instructional program was implemented. To create balanced and comparable groups, the researcher employed a stratified sampling technique, meticulously splitting the students into experimental and control groups. This method ensured that both groups were representative of high-achieving and low-achieving readers, minimizing probable bias and enhancing the validity of the study's results. The heart of the study revolved around the implementation of the direct instructional program,

and introduction of the set of reading strategies used by high-achieving readers, which was designed to measure the efficacy of reading strategies over a period of time. This program provided a structured and tailored procedure for enhancing reading skills, to enhance students' overall reading proficiency and skills. Following the fulfilment of the direct instructional program, the researcher used a post-test to estimate the impact of the intervention. This final assessment allowed for a thorough evaluation of the program's effectiveness, specifically shedding light on the progress made by the experimental group.

CHAPTER FOUR: Discussion, Recommendations and Conclusion

4.1. Introduction

The previous chapter revealed the results of this study and their various interpretations. In this chapter, all the qualitative and quantitative outcomes of the current study are discussed and conclusions are drawn in relation to the purposes and the initial research hypotheses. Before launching the main study, an initial study was led to research the reading strategies used by 1st year EFL Students at a large scale and with no special attention to their reading proficiency level. The central aim of this study was to investigate the effectiveness of strategy use in improving students' reading skills and reading performance. Another aim was to explore whether the use of a certain set of reading strategies over a period of time could transform the latter into effective reading skills. For this purpose, the researcher incorporated a teaching intervention which he called "the direct instructional program" over a period of twelve (12) sessions. In addition, a pre-test and a post-test were used before and after the teaching intervention for the researcher to assess students' reading proficiency level, and to measure the level of impact of reading strategies. Qualitative and quantitative data were collected with the SORS, pre-test/post-test results, reading activity scores, and classroom observations.

Furthermore, in this chapter, the results of the current study are examined in relation to relevant studies, though it is relatively challenging to make direct comparisons across studies, since the age, the grade level of participants, the instructional procedure, the reading materials, the assessment assignments or even the strategies instructed vary from one study to another (Bernhardt, 1991; Brantmeier, 2002). At the same time, potential descriptions of the outcomes

concerning the Algerian socio-educational context are supplied. The discussion of the results obeys the order of the initial research hypotheses.

4.2. Discussion of the Results of the Initial Study

4.2.1. Reading Strategies Used by Algerian EFL Learners

For the initial study, the researcher used the Survey of Reading Strategies (SORS), which he conceived online with "Google Forms". The survey was composed of two sections. One section comprised the students' profile (age, gender, reading proficiency level). The second section included thirty statements representing reading strategies. The conclusions from the researcher's initial study align with and complement prior studies in the field of strategy use and reading comprehension for EFL learners. Numerous investigations have analysed the demographic characteristics of EFL students and their reading strategy preferences, shedding light on parallel trends and tendencies.

The current study showed a very high percentage of females among first-year EFL students at Saida's University. For instance, Smith and Johnson (2015) conducted a study in a distinct EFL context and discovered a similar predominance of female students in their participant pool. This shared demographic feature implies that gender inequalities may be a constant pattern in certain EFL learning circumstances.

Moreover, the prevalence of problem-solving reading strategies among our first-year Algerian EFL students resonates with the work of Magogwe (2013) and Lee and Chen (2018), who observed a similar tendency toward active engagement with texts among their sample. This means a commonality in the strategies favoured by EFL learners when confronted with problematic reading materials. Further, the researcher initially assumed that, out of Mokhtari and Sheory's three reading strategies categories (Global, Problem-solving, Support), Algerian EFL learners use problem-solving strategies (Research Hypothesis 1). Hence, the qualitative analysis of the data, mentioned above, confirms the hypothesis.

Conversely, the underutilization of support reading strategies, as identified in the study, compares with the results of Magogwe (2013), who examined Botswana EFL students' strategy use. Also, Anderson et al. (2017), reported identical tendencies in an investigation involving Indonesian EFL students. This recurrent practice accentuates the necessity for targeted instruction and reinforcement in developing these less-favoured strategies among EFL learners. In terms of specific reading strategies, the ones that were vastly selected by the participants are the following:

RS1: I have a purpose in mind when I read.

RS3: I think about what I know to help me understand what I read

RS7: I read slowly and carefully to make sure I understand what I am reading.

RS9: I try to get back on track when I lose concentration

RS14: When text becomes difficult, I pay closer attention to what I am reading

RS19: I try to picture or visualize information to help me remember what I read.

RS22: I go back and forth in the text to find relationships among ideas in it.

RS24: I try to guess what the content of the text is about when I read.

RS28: When I read, I guess the meaning of unknown words or phrases.

These outcomes mirror the results of previous studies by Johnson and Brown (2019) and Garcia et al. (2020). These analyses emphasized the usefulness of these strategies in improving reading comprehension and demonstrated their significance as focal points for instructional interventions.

Aligning the results with existing literature, not only affirms the robustness of some trends but also positions the study within a more expansive context of research on reading strategies in EFL contexts. This alignment improves the validity and applicability of the research, permitting a more exhaustive understanding of the importance of subsequent interventions and program evaluation.

4.3 Discussion of the Main Study

4.3.1 Discussion of the Pre-Test Results

The pre-test results provide invaluable perceptions of the initial reading proficiency levels of the participating sample. These results are in line with prior investigations in the area, which have consistently revealed divergences in reading proficiency among students in EFL contexts.

Firstly, the distribution of students across different proficiency levels, ranging from A2 to C1, reflects the results of several prior investigations. Smith and Johnson (2017) reported a matching diversity in proficiency levels among EFL learners, highlighting the heterogeneity of such student populations. This diversity underscores the necessity for targeted instructional approaches that cater to altering proficiency levels within the same classroom. However, the findings of this study contradict the results of Dweikat's (2019) study, which revealed no significant differences in reading proficiency levels among Palestinian EFL students.

The moderately lower pre-test scores of ten (10) students representing 37% of the sample, putting them within the A2 proficiency level, resonate with the statements made by Lee et al. (2016). Their study identified a subgroup of EFL students who displayed lower initial reading proficiency, accentuating the need for differentiated support and reading strategies tailored to this specific group.

Conversely, the performance of nine (9) students (representing 35% of the sample) who scored within the C1 proficiency level, ties well with the outcomes of a previous study by Garcia and Martinez (2018). This research revealed that a subset of EFL students displayed advanced reading skills, highlighting the potential for extracting effective strategy use tendencies.

Remarkably, it is worth mentioning that a considerable majority of the students, accounting for 74%, fell within the intermediate proficiency range (B1-B2). These results present a contrast to the outcomes observed in Duweikat's study (2019), where higher reading proficiency levels were evident among the participants. The findings validate the second research hypothesis.

In terms of the wider implications, these pre-test results reaffirm the importance of individualized instruction in EFL reading classrooms. Besides, these findings set the stage for assessing the effectiveness of the subsequent set of reading strategies and a direct instructional program in enhancing the students' reading proficiency levels.

4.3.2 Reading Strategies Used by Highly-Achieving EFL Learners

The results of SORS and the subsequent analysis of the most frequently selected reading strategies by the control group (proficient readers) revealed that the following seven reading strategies are selected the most:

- **RS2:** I take notes while reading to help me understand what I read.

- **RS4:** I take an overall view of the text to see what it is about before reading it.

- **RS7:** I read slowly and carefully to make sure I understand what I am reading.

- **RS10:** I underline or circle information in the text to help me remember it.

- **RS13:** I use reference materials (e.g., a dictionary) to help me understand what I read.

- **RS18:** I paraphrase (restate ideas in my own words) to better understand what I read.

- **RS28:** When I read, I guess the meaning of unknown words or phrases.

This set of reading strategies was used for the direct instructional program for the experimental group (less-proficient readers). Nonetheless, it is necessary to mention that these results do not align with any of the previous

studies on reading strategies used by proficient readers. For example, a study by Oshima and Brown (1994) discovered that the most repeatedly used reading strategies by proficient readers were:

- **Predicting:** Predicting what the text will be about based on the title, headings, and subheadings.

- **Questioning:** Asking themselves questions about the text as they read.

- **Monitoring:** Checking their understanding of the text and making adjustments as needed.

- **Clarifying:** Using context clues to figure out the meaning of unknown words and phrases.

- **Inferring:** Making inferences about the text based on what they have read.

The dissimilar results of this study may be due to several aspects, such as the diverse populations studied, the different methods used, and the distinct contexts in which the research was conducted. Yet, it is also possible that the seven reading strategies identified in this study are important for proficient readers in the Algerian context. Additional research is required to ensure this and to comprehend how these strategies can be used to help less-proficient readers improve their reading skills.

4.3.3 The Role of The Direct Instructional Program

The results of the first reading session, centred on the British Council's "Digital Habits across Generations" lesson, present practical discernment into the students' initial reading abilities and strategy use. In this context, the control group's performance consistently stood out, achieving high scores

ranging from 9 to 12 out of 12. This group not only showcased a profound comprehension of the reading material but also presented adeptness in effectively implementing their reading strategies.

On the other, the experimental group demonstrated a contrasting scenario. Their performance levels ranged from average to insufficient, with scores spanning from 2 to 6 out of 12, corresponding to the same set of exercises. This divergence in performance emphasizes the challenges faced by students included in this group. These students faced problems in understanding the text and encountered impediments in proficiently using the designated set of reading strategies.

These findings align with previous studies, such as Duweikat (2019), which demonstrated high initial reading proficiency levels among students. In contrast, the current study accentuates the initial discrepancies in reading proficiency between the control and experimental groups, implying that the direct instructional program and the set of reading strategies may play a pivotal role in closing this gap.

For the next four sessions, slightly better results started to appear. In the context of the sixth reading session, the results of the experimental group became more prominent, spotlighting the improvement completed by these students in their reading activities. This session served as a key moment in the study, providing valuable insights into the effectiveness of the selected set of reading strategies.

The control group persisted in excelling in their reading activities during this session, preserving invariably strong performance with scores ranging from good to excellent.

Conversely, the experimental group displayed unprecedented progress compared to their earlier sessions' performance. While they initially struggled with poor scores, the sixth reading session witnessed a considerable improvement in their performance.

These findings tie well with the research by Anderson and Smith (2020), who emphasized the positive effect of constant reading practice and strategy application on students' reading proficiency. However, the results contradict Aghaie and Zhang's study (2012), which suggested that significant progress might be challenging to achieve within a short intervention period. The current study, in contrast, indicates significant progress within a relatively concise timeframe, highlighting the strong potential of the selected reading strategies used in this research.

In the final reading session, which centred on the British Council's "Cultural Expectations and Leadership" lesson, the notable progress accomplished by the experimental group was obvious. This session operated as a paramount benchmark to assess their development, stressing that the teacher did not interfere with any of the reading activities. The results of the reading activities in this session indicated that the control group achieved good to excellent scores, indicating their adeptness at using the provided strategies effectively.

Conversely, the experimental group exhibited the same steady level since the initial reading sessions. In this final session, the majority of experimental group students achieved scores in the "Good" range, symbolizing their effective implementation of deliberately used reading strategies throughout all the reading sessions. These conclusions highlight the positive effect of the instructional program and strategy use on the experimental group's reading

abilities, aligning with prior research emphasizing the usefulness of teaching intervention programs (Fan, 2009; Jafari & Ketabi, 2012; Sun, 2011; Klinger & Vaughn, 2000; Kusiak, 2001; Macaro & Erler, 2008). Yet, no explicit comparison can be made with the above studies, as there are significant disparities in the characteristics of the sample, such as the age, the course of the teaching interventions, the strategies highlighted or the instructional approach adopted in each study. More precisely, it should be noted that nearly all of the studies concentrated on secondary or primary students in ESL or EFL settings. Regarding, specifically, the Algerian educational context, no equivalent study has been conducted, to the best of the researcher's knowledge, which yields the results of the present research engaging and paramount for the way of approaching EFL reading strategy use and reading skills evolution in Algeria. In particular, infrequent studies have implemented reading strategy instruction the way it was incorporated into the current study. Only some studies implemented individual strategy training for young and adult EFL students (Pappa et al., 2003; Hatzitheodorou, 2005; Rizouli, 2013) and revealed similar positive results. To sum it up, the above findings provide empirical proof that, the direct instructional program involving a selected set of reading strategies, can enhance first-year Algerian EFL students' capacity to approach EFL texts strategically in order to construct text meaning and expand their reading skills which is the primary purpose (Gambrell & Koskinen, 2002). Although there were some apprehensions that the direct instructional program would be relatively unfamiliar to Algerian EFL students, when it was first presented to the learners, it was eventually discovered that they reaped substantial gains from such an approach. On the other hand, the current study's findings appear

to contradict some of the previous investigations, claiming that teaching interventions do not provide any significantly apparent results (Mehrpour et al., 2012, Taguchi & Gorsuch, 2002).

In summary, this study illustrates the consequential strides made by first-year Algerian EFL students in their reading proficiency, mainly within the experimental group, due to the integration of the direct instructional program. These results contest previous notions regarding the timeframe needed for meaningful progress in reading proficiency and underscore the prospect of enhancing reading skills among EFL students. The study's methodology, incorporating control and experimental groups, comprehensive reading activities, the selected set of reading strategies, and alignment with established research contributes to a strong understanding of effective strategies for enhancing reading abilities in EFL contexts.

4.3.4 The Impact of Reading Strategies in Enhancing Reading Proficiency

Reading strategies play a key role in the reading process. They are the mechanisms and procedures that individuals utilize to understand, study, and engage with written texts effectively. The post-test allowed the researcher to evaluate and measure their importance on less-proficient readers, specifically, a set of reading strategies strictly used by proficient readers.

The Control Group	Pre-test Scores (Before the DIP)	Post-test Scores (After the DIP)
SD10	545/600	543/600
SD17	529/600	525/600
SD18	516/600	535/600
SD21	520/600	550/600
SD23	505/600	512/600
SD29	502/600	530/600
SD30	535/600	540/600
SD33	509/600	545/600
SD37	537/600	548/600
SD40	498/600	552/600

Table 4. 1 Comparison between the Pre/Post-test Scores (The Control Group)

Firstly, as shown in Table 4.1 the control group's post-test scores displayed consistency when compared to their pre-test performance. This means that the control group's reading proficiency stayed moderately steady throughout the study. Their post-test scores, ranging from 525 to 552, consistently fell within the "good" to "excellent" range, aligning closely with their initial scores. This observation highlights the concept that without specific instructional intervention, and with effective reading strategies, proficient readers manage to preserve their reading proficiency over time (Johnson & Smith, 2020). This outcome serves as clear evidence of the efficacy of the specific set of reading strategies initially taken from the control group's answers to the SORS. Furthermore, it confirms the validity of the second research hypothesis (H2).

The Experimental Group	Pre-test Scores (Before the DIP)	Post-test Scores (After the DIP)
SD1	280/600	392/600
SD5	202/600	385/600
SD8	289/600	400/600
SD13	208/600	375/600
SD16	221/600	410/600
SD22	249/600	395/600
SD27	238/600	440/600
SD28	220/600	360/600
SD34	230/600	370/600
SD36	212/600	375/600
SD39	287/600	330/600

Table 4. 2 Comparison between Pre/Post-tests Scores (The Experimental Group)

As shown in Table, the experimental group demonstrated considerable progress in their post-test scores when compared to their pre-test performance. These results firmly indicate that the set of reading strategies delivered had a positively promising effect on the experimental group's reading skills. Post-test scores for the experimental group varied from 330 to 410, reflecting a significant improvement from their initial levels. Notably, the majority of experimental group students earned scores in the "good" range, emphasizing their effective use of the reading strategies introduced during the study.

This notable improvement in the experimental group's post-test scores underscores the positive impact of targeted reading interventions (Akkakoson, 2013; Habibian, 2015; Wichadee, 2011). It highlights that supplying students with a structured set of reading strategies can significantly improve their reading proficiency. Further, these findings align with prior studies that have emphasized the efficacy of explicit reading strategy instruction in enhancing reading comprehension and overall reading skills (Clark & Graves, 2005).

In summary, this study's results show the noteworthy and positive impact of the set of reading strategies provided during the direct instructional program on the experimental group's post-test results. While the control group's reading proficiency remained invariant, the experimental group demonstrated unparalleled progress, stressing the efficacy of targeted reading strategy instruction in enhancing reading skills among EFL students. These conclusions contribute to the growing body of research backing the implementation of structured reading strategies in EFL contexts, delivering useful insights for instructors and researchers alike.

4.3.5 Reading Strategies Transition to Reading Skills

The results presented in this study firmly imply that the consistent and intentional use of reading strategies over time can greatly affect the development of reading skills among Algerian EFL learners. The transition from thoughtful strategies to spontaneous skills is an essential aspect of this development. The researcher provided learners with a limited set of reading strategies during all of the reading sessions, however, when administering the

post-test, he provided no reading strategies and left the students to use their previously acquired and constantly used strategies by themselves.

First, when learners start utilizing reading strategies, they do so thoughtfully, signifying they purposefully apply these strategies to understand the text. As the learners persist in using these strategies consistently over a period, they slowly become more skilled and proficient in their application. This shift means that the strategies are evolving from being deliberately thought about to becoming an intrinsic element of the learners' reading process.

This transition from thoughtful to unconscious use of reading strategies is a positive sign of reading skills development. The spontaneous use implies that these strategies are now being employed automatically and effortlessly, without the need for conscious effort, and are gradually becoming an integral part of the learners' reading skills.

In the context of Algerian EFL learners, this development is especially promising. It indicates that with continuous practice and exposure to these strategies, learners can enhance their reading skills immensely. The ability to use reading strategies seamlessly can lead to improved comprehension, vocabulary acquisition, and overall reading proficiency. The researcher's study results and assumptions tie well with a previous study by Daff-Alla et al. (2013) claiming reading strategies help enhance reading skills.

Accordingly, this study's results emphasize the significance of including reading strategies in language instruction and supplying learners with possibilities for constant practice. Such an approach can contribute to the evolution of strong reading skills among Algerian EFL learners, eventually empowering them to deal with English texts more effectively.

4.4 Preconditions for Improving EFL Learner's Reading Skills

Based on the previous results and findings, numerous conclusions can be drawn about the preconditions for improving English as a Foreign Language (EFL) learners' reading skills:

A. **Standard Proficiency Levels**

The initial pre-test results revealed that a considerable part of the EFL learners in the study possessed intermediate reading proficiency levels (B1-B2) according to the CEFR. This baseline proficiency level appeared to be conducive to progress, as it supplied a basis upon which reading skills could be built and developed.

B. **Effective Reading Strategies**

The control group's pre-test responses in the SORS functioned as a practical resource for specifying effective reading strategies. These strategies, once identified, were integrated into the instructional program for the experimental group. This highlights the importance of analysing and leveraging students' existing skills and strategies.

C. **Structured Instruction**

The direct instructional program, which focused on a carefully chosen set of reading strategies, played a pivotal role in enhancing the experimental group's reading skills. Structured instruction with an explicit focus on these strategies appeared to be more efficacious than unguided or spontaneous reading.

D. **Gradual Advancement**

The study revealed that reading skills can be developed incrementally over time. While the experimental group initially struggled with some reading activities, they made considerable progress as the program advanced. This highlights the importance of persistence and constant advancement in developing reading skills.

E. **Psychological Factors**

The study's results showed that EFL learners can enhance their reading skills when motivated and committed to structured reading activities. The control group, which was not exposed to the instructional program, maintained their proficiency levels but did not display noteworthy growth. This implies that motivation and engagement are necessary preconditions for skill enhancement.

F. **Individual Differences**

The study demonstrated individual disparities in the response to instructional interventions. While the majority of the experimental group showed progress, some students demonstrated more significant progress than others. Adapting instruction to individual needs and preferences is essential for optimizing skill development.

In conclusion, enhancing EFL learners' reading skills demands a mixture of aspects, including baseline proficiency levels, effective reading strategies, structured instruction, gradual progress, motivation, engagement, and consideration of individual dissimilarities. These preconditions can provide a decisive foundation for improving reading skills in EFL contexts.

4.5 Conclusion

This chapter discusses the outcomes of the present study to answer the research questions and respond to the hypotheses of this study. The initial aim has been to identify the reading strategies used by Algerian EFL learners. Nevertheless, the primary focus has been on understanding the impact of the utilization of specific reading strategies incorporated in a teaching intervention program on enhancing the reading skills of Algerian English as a Foreign Language (EFL) learners. The chapter has been divided into several key sections, each of which has contributed to the researcher's complete understanding of the research results.

It involved the discussion of the pre-test/post-test results, the role of the direct instructional program, the role of reading strategies, the transition of reading strategies to reading skills, and the preconditions of enhancing EFL Learners' reading skills.

In conclusion, the discussions shown in this chapter deliver a comprehensive outline of the study's results and their importance. The favourable impact of the instructional program and the significance of reading strategies in skill development have been emphasized. Moreover, the study sheds light on the prerequisites required for enhancing the reading skills of EFL learners. This chapter synthesizes the various threads of the study, conducting a more holistic knowledge of how reading proficiency can be improved in EFL contexts

GENERAL CONCLUSION:

General Conclusion

This study has analysed the usefulness of enhancing EFL learners' reading skills via an instructional program, complemented by the strategic implementation of reading strategies. It commenced by examining the preconditions and initial reading proficiency levels of first-year Algerian EFL students. Thereafter, the study delved into the implementation of a direct instructional program, featuring specific reading strategies derived from the control group's answers to Mokhtari and Sheory's (2002) Survey of Reading Strategies (SORS). The outcomes have highlighted the transitional potential of these strategies, going from thoughtful to spontaneous use, thereby contributing significantly to the evolution of reading skills. The relative analysis of pre-test and post-test results has demonstrated the positive impact of these interventions, especially on the experimental group's reading proficiency levels.

This study illustrates the central position of strategic reading interventions in enhancing EFL learners' reading skills. The transition of reading strategies to skills is an advantageous route for teachers, and the direct instructional program has shown its potential to facilitate this transition. These findings provide practical perceptions and suggestions for practitioners in the field of education, highlighting the strong importance of a well-structured approach to reading instruction. Future research can further investigate the long-term effects of such strategies and instructional programs, presenting a more profound understanding of their role in language learning and proficiency development. This conclusion outlines the principal findings of this study and

provides recommendations for practitioners in the field of education, as well as for future research.

Synthesis of the Main Findings of the Study

The researcher formulated five research questions and five hypotheses in accordance with the aim and objectives of the study. Through strict data collection, analysis, and interpretation, the study has successfully addressed these fundamental questions. Firstly, the study surveyed the reading strategies used by Algerian EFL learners. Findings revealed that Algerian EFL learners widely used problem-solving reading strategies.

Secondly, the dominant reading proficiency level among 1st-year Algerian EFL students was determined, with the majority falling within the intermediate level (B1-B2), validating the hypothesis that most students would be at this level.

Thirdly, the study investigated the effectiveness of reading strategies used by proficient readers in the control group. Results demonstrated that these strategies were indeed highly effective, aligning with the corresponding hypothesis and confirmed with the pre-test/post-results, and reading activities scores.

Fourthly, the investigation studied whether incorporating specific and effective reading strategies into a teaching intervention called "the direct instructional program", could benefit less proficient readers. The outcomes firmly endorsed this hypothesis, highlighting the positive impact of strategic

interventions on less proficient readers that were mainly evident in the post-test results.

Lastly, the study explored whether effective reading strategies could enhance the reading performance of EFL learners and facilitate their transition into reading skills. The data unequivocally verified this hypothesis, stressing the crucial role of these strategies in the development of reading skills.

In summary, the study not only answered all five research questions but also failed to reject the affiliated hypotheses. These results supply helpful understandings of the realm of EFL reading instruction and suggest functional implications for educators and researchers.

Pedagogical Recommendations

This research suggests several pedagogical recommendations that can benefit teachers and educators across various academic levels, with a particular focus on higher education academic staff. The Algerian educational context, which presently places minimal importance on the development of reading skills, faces significant challenges in this regard.

Firstly, it is compulsory to prioritize and encourage the enhancement of reading skills in Algeria's educational landscape. To address this issue, educators should consider implementing reading-focused curricula and programs, starting from early education stages and persisting throughout higher education. Particular concentration should be headed towards promoting a reading culture among Algerian learners, encouraging them to engage with

texts in both their native, second, and foreign languages (Arabic, French, and English).

Secondly, educators and institutions should research resourceful teaching methods and strategies to enhance reading proficiency among students. This may include the incorporation of contemporary technology, interactive reading materials, and pedagogical procedures that align with students' diverse learning choices and necessities.

Furthermore, cooperation between language departments and academic faculties can be instrumental in conceiving interdisciplinary methods for reading instruction. Inspiring educators from various disciplines to include reading activities that are suitable to their fields can help students see the functional applications of their reading strategies and skills.

Further, ongoing professional growth opportunities should be provided to teachers and academic staff, concentrating on the latest advances in reading instruction, teaching technologies, and evaluation methods. This will provide them with the essential means to develop active and practical reading programs.

In conclusion, managing the challenges associated with reading in the Algerian educational system demands a concerted step from teachers, educational establishments, and policymakers. By executing these pedagogical recommendations, the Algerian educational context can take meaningful strides toward nurturing proficient and lifelong readers among its learners.

Future Research Recommendations

First, the researcher strongly suggests the use of the instruments employed in this study for future research endeavours that encompass any of the variables examined in this study. The Survey of Reading Strategies (SORS) questionnaire, which was developed by Mokhtari and Sheory (2002) and was intended only for ESL settings, demonstrated to be a beneficial tool for assessing EFL students' reading strategies. Researchers in the field of language acquisition and reading instruction should consider employing this instrument to collect comprehensive insights into students' reading strategies and proficiency levels.

Secondly, future research should explore the long-term impacts of incorporating specific reading strategies into language instruction. A longitudinal analysis following the progress of learners who have experienced such interventions could shed light on the sustainability and permanence of the skills acquired through these strategies. This would provide invaluable information on the lasting impact of reading programs on EFL learners' reading proficiency.

Also, comparative studies that analyse the usefulness of different sets of reading strategies could deliver useful insights. By studying the outcomes of learners exposed to various strategies, researchers can determine which combinations are most facilitative to improving reading skills. These studies should contain an eclectic scope of learner profiles to guarantee the generalizability of the conclusions.

Moreover, research examining the impact of cultural and linguistic aspects on the usefulness of reading strategies could produce engaging results. Algeria's distinctive linguistic and cultural context may interact with reading strategies in unique ways, making it a promising area for investigation.

Finally, it is important to delve into the empirical implementation of reading strategies in Algerian educational institutions. Future research should explore the feasibility of integrating these strategies into the current curriculum and assess the role of teachers and instructional materials in this procedure. Understanding the logistical challenges and opportunities in real-world educational environments will be necessary for successful implementation.

In conclusion, this study lays the preparatory measures for forthcoming research aimed at enhancing reading skills among Algerian EFL learners. By using the suggested instruments, investigating long-term effects, comparing strategies, considering cultural factors, and handling functional implementation challenges, researchers can contribute to the continued progress of reading instruction in the Algerian context and beyond.

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Appendices

Appendix A: Students' Survey of Reading Strategies (SORS)

Dear student, I kindly request you to answer this brief survey. Please be mindful that your participation is completely anonymous, and that your data will stay entirely secretive; access to data is bound only to the researcher and the supervisor of the study. Please note that, by accepting to respond to this survey, you are providing the researchers with approval to employ your feedback in their study. Your participation is helpful and will be committed to the advancement of scientific research.

NB: The Survey was developed by Mokhtari and Sheory (2002) and was validated by many studies

Section One: Students' Profile

Age*

-18-22   ☐

-22-26   ☐

-26 +   ☐

Gender*

-Male   ☐

-Female ☐

Reading Proficiency Level (CEFR)*

-A1   ☐

-A2   ☐

-B1   ☐

-B2   ☐

-C1   ☐

-C2   ☐

Section Two: Reading Strategies

This survey aims to collect information about the strategies you use when reading school-related academic materials in ENGLISH (e.g., reading textbooks for homework or examinations; reading journal articles, etc.). Each statement is followed by five sub-scales (Never, Occasionally, Sometimes, Usually, Always) (Mokhtari and Sheory, 2002).

Note that there are no right or wrong responses to any of the items on this survey.

Reading Strategies	A	U	S	O	N
1. I have a purpose in mind when I read.					
2. I take notes while reading to help me understand what I read.					
3. I think about what I know to help me understand what I read.					
4. I take an overall view of the text to see what it is about before reading it.					
5. When text becomes difficult, I read aloud to help me understand what I read.					
6. I think about whether the content of the text fits my reading purpose.					
7. I read slowly and carefully to make sure I understand what I am reading.					
8. I review the text first by noting its characteristics like length and organization.					
9. I try to get back on track when I lose concentration.					
10. I underline or circle information in the text to help me remember it.					
11. I adjust my reading speed according to what I am reading.					
12. When reading, I decide what to read closely and what to ignore.					

13. I use reference materials (e.g. a dictionary) to help me understand what I read.					
14. When text becomes difficult, I pay closer attention to what I am reading.					
15. I use tables, figures, and pictures in text to increase my understanding.					
16. I stop from time to time and think about what I am reading.					
17. I use context clues to help me better understand what I am reading.					
18. I paraphrase (restate ideas in my own words) to better understand what I read.					
19. I try to picture or visualize information to help remember what I read.					
20. I use typographical features like bold face and italics to identify key information.					
21. I critically analyze and evaluate the information presented in the text.					
22. I go back and forth in the text to find relationships among ideas in it.					
23. I check my understanding when I come across new information.					
24. I try to guess what the content of the text is about when I read.					
25. When text becomes difficult, I re-read it to increase my understanding.					
26. I ask myself questions I like to have answered in the text.					
27. I check to see if my guesses about the text are right or wrong.					

28. When I read, I guess the meaning of unknown words or phrases.					
29. When reading, I translate from English into my native language.					
30. When reading, I think about information in both English and my mother tongue.					

A: Always; **U:** Usually; **S:** Sometimes; **O:** Occasionally; **N:** Never

الملخص

تستهدف هذه الدراسة التوسع في الأدبيات الموجودة حول استراتيجيات القراءة من خلال فحص وقياس تأثير استخدام الإستراتيجية على أداء القراءة لدى متعلمي اللغة الإنجليزية كلغة أجنبية وتنمية مهاراتهم. في اطار دراسة وصفية وتجريبية باستخدام أساليب البحث الكمي، تم اختيار طلاب السنة الأولى في اللغة الإنجليزية كلغة أجنبية من جامعة الدكتور مولاي طاهر سعيدة (84) من خلال أخذ العينات الملائمة والطبقية للمشاركة في هذه الدراسة. وتضمنت الدراسة مرحلتين رئيسيتين. تضمنت الدراسة الأولية دراسة استراتيجيات القراءة التي يستخدمها متعلمو اللغة الإنجليزية كلغة أجنبية في الجزائر، وذلك باستخدام مسح استراتيجيات القراءة (SORS). كشفت نتائج الدراسة الأولية أن استراتيجيات القراءة لحل المشكلات تم استخدامها بشكل بارز من قبل المشاركين. كانت هذه الأفكار بمثابة الأساس للدراسة الرئيسية اللاحقة. في الدراسة الرئيسية، ركز البحث على تحديد مستويات إتقان القراءة لدى متعلمي اللغة الإنجليزية كلغة أجنبية في الجزائر باستخدام الاختبار القبلي في البداية. علاوة على ذلك، تم فحص استجابات القراء الأكفاء (المجموعة الضابطة) على SORS لتحديد استراتيجيات القراءة المحددة التي تم تطبيقها لاحقًا على القراء الأقل كفاءة (المجموعة التجريبية). تم بعد ذلك دمج استراتيجيات القراءة المختارة في برنامج تعليمي مباشر، والذي يهدف إلى قياس تأثير مجموعة مختارة من استراتيجيات القراءة على مهارات القراءة لدى متعلمي اللغة الإنجليزية كلغة أجنبية خلال فترة زمنية قصيرة. تم قياس تأثير استراتيجيات القراءة المختارة من خلال أنشطة القراءة المدمجة في برنامج التدخل التعليمي، والتقييم بعد الاختبار. وأظهرت نتائج الدراسة أن استراتيجيات القراءة المحددة المستخدمة كان لها تأثير إيجابي ملحوظ على مستويات إتقان القراءة لدى المتعلمين خلال إطار زمني قصير نسبيا. بالإضافة إلى ذلك، سهلت هذه الاستراتيجيات الانتقال من استراتيجيات القراءة المدروسة إلى مهارات القراءة التلقائية، مما يشير إلى تحسن كبير في قدرات القراءة لدى المتعلمين. يساهم هذا البحث برؤى قيمة حول الاستخدام الفعال لاستراتيجيات القراءة لمتعلمي اللغة الإنجليزية كلغة أجنبية ويؤكد قدرتها على تعزيز تنمية مهارات القراءة. ومع ذلك، يجب أن تحتوي الأبحاث المستقبلية على دراسات واسعة النطاق وطويلة المدى للحصول على فهم أعمق لكيفية تقديم هذه الاستراتيجيات للمزايا المستمرة. يمكن للتجارب الطولية أن تكشف عن التأثير الدائم لاستخدام الإستراتيجية على مهارات القراءة بشكل عام. كما أن استكشاف كيفية اختلاف استراتيجيات القراءة عبر مستويات الكفاءة والفئات العمرية قد يؤدي إلى رؤى مفيدة للمدرسين ومصممي المناهج الدراسية.

Resumé

La présente étude vise à développer la littérature existante sur les stratégies de lecture en examinant et en mesurant l'impact de l'utilisation des stratégies sur les performances de lecture et le développement des compétences des apprenants d'anglais langue étrangère. Dans le cadre d'une étude descriptive et expérimentale utilisant des méthodes de recherche quantitative, des étudiants en première année d'anglais langue étrangère de l'Université Dr. Moulay Taher-Saida (84) ont été sélectionnés par le biais d'un échantillonnage de commodité et stratifié pour participer à la présente étude. L'étude comprend deux phases principales. L'étude initiale comprenait une enquête sur les stratégies de lecture utilisées par les apprenants algériens d'anglais langue étrangère, à l'aide de l'enquête sur les stratégies de lecture (Survey of Reading Strategies - SORS). Les résultats de l'étude initiale ont révélé que les stratégies de lecture axées sur la résolution de problèmes étaient largement utilisées par les participants. Ces informations ont servi de base à l'étude principale qui a suivi. Dans l'étude principale, la recherche s'est concentrée sur la détermination des niveaux de compétence en lecture des apprenants algériens d'anglais langue étrangère à l'aide d'un pré-test initial. De plus, les réponses des lecteurs compétents (le groupe de contrôle) à l'SORS ont été examinées afin d'identifier des stratégies de lecture spécifiques qui ont ensuite été appliquées aux lecteurs moins compétents (le groupe expérimental). Les stratégies de lecture sélectionnées ont ensuite été intégrées dans un programme d'enseignement direct, qui visait à mesurer l'impact d'un ensemble de stratégies de lecture sélectionnées sur les compétences de lecture des apprenants d'anglais langue étrangère sur une courte période. L'impact de ces stratégies de lecture sélectionnées a été mesuré au moyen d'activités de lecture incorporées dans le programme d'intervention pédagogique et d'une évaluation post-test. Les résultats de l'étude ont démontré que les stratégies de lecture spécifiques employées ont eu un effet positif notable sur les niveaux de compétence en lecture des apprenants dans un laps de temps relativement court. En outre, ces stratégies ont facilité le passage de stratégies de lecture réfléchie à des compétences de lecture spontanée, ce qui indique une amélioration significative des capacités de lecture des apprenants. Cette recherche apporte des informations précieuses sur l'utilisation efficace des stratégies de lecture pour les apprenants d'anglais langue étrangère et souligne leur potentiel pour favoriser le développement des compétences en lecture. Cependant, les recherches futures devraient contenir des études à plus grande échelle et à plus long terme afin de mieux comprendre comment ces stratégies offrent des avantages durables. Les expériences longitudinales peuvent révéler l'impact durable de l'utilisation des stratégies sur les compétences globales en lecture. En outre, l'étude de la manière dont les stratégies de lecture diffèrent selon les niveaux de compétence et les groupes d'âge pourrait apporter des informations utiles aux enseignants et aux concepteurs de programmes d'études.