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The Contribution of Phonological Awareness to Developing EFL Learners' Reading Competence: The Case of First- and Fourth-Year Pupils at Tayeb Boulahrouf Middle School, Kouba, Algiers

Thesis submitted in fulfillment of the requirements for the Degree of Doctorate in English Linguistics and Didactics

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Date: 29/11/2023

Signed: Amro MAKHLOUF

Dedication

To my loving parents

To my brothers and my little sister

To my wife

To my little kids

Acknowledgements

Abstract

Phonological awareness is one of the most crucial skills needed for literacy development. However, it seems to be rarely taken into account when teaching reading in English classes in Algerian middle schools. The purpose of this study was to explore the contribution of phonological awareness to developing first- and fourth-grade Algerian middle school EFL learners' reading competence. To set up this research, a mixed method sequential study was conducted at Tayeb Boulahrouf Middle School, Kouba, Algiers. The informants involved in this survey were 80 EFL learners, 5 EFL teachers, and 15 EFL inspectors. A pretest and a posttest were conducted to measure the effectiveness of phonological awareness training on the experimental group's reading competence. The data was collected by means of pre-and post-tests, a document analysis of English textbooks, two questionnaires administered to both pupils and teachers, and an interview conducted with inspectors. Data have revealed that phonological awareness assessment tasks are almost absent in the four textbooks except with reference to phoneme isolation, categorization, and identification. Other levels such as syllable awareness and onset-rime awareness level are totally marginalized in the textbooks. Besides, the study found that most teachers and inspectors have limited knowledge concerning the meaning of phonological awareness, its connection with reading skill acquisition, and the methods of incorporating it in the classroom context. The results obtained from the pretest and posttest demonstrated that phonological awareness has a positive impact on both grades' reading fluency and comprehension. The results thus provided support to previous research, and implied that phonological awareness is beneficial for improving reading competence contrary to the notion of the whole language approach. Additionally, they showed that explicit phonological awareness intervention can help foster Algerian EFL learners' reading competence once it is systematically integrated into their school curricula.

Key words: Phonological awareness; Reading competence; middle school; Algerian EFL textbooks; EFL learners.

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List of Abbreviations

Adj: Adjective

CTRL: Control

EFL: English as a foreign language

ELs: English learners

ENS: Ecole Normale Supérieure

EXPT: Experimental

ETGMS1: English Teacher Guide of Middle School Year One

ETGMS2: English Teacher Guide of Middle School Year Two

ETGMS3: English Teacher Guide of Middle School Year Three

ETGMS4: English Teacher Guide of Middle School Year Four

H: Hypothesis

IPA: International Phonetic Alphabet

IQ: Intelligence quotient

L1: First language/native language L2: Second language

M: Mean Score

MBOE 1: My Book of English Year One

MBOE 2: My Book of English Year Two

MBOE 3: My Book of English Year Three

MBOE 4: My Book of English Year Four

N: Noun

P: P-value

PA: Phonological Awareness

 R: The correlation coefficient

RC: Relative Clause

RP: Received pronunciation

RQ: Research question

SQ: Sub question

SD: Standard deviation

SPSS: Statistical Package for the Social Sciences

T: T-value

TB MS: Tayeb Boulahrouf Middle School

VP: Verb phrase

GENERAL INTRODUCTION

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1. Background of the Study

Reading in the early years has numerous benefits and is the key to children mental growth. One key benefit of instilling the habit of reading is the development of critical thinking skills. Reading increases children knowledge, builds their vocabulary, boost their writing and spelling skills and make them more articulate conversationalists and effective communicators. Additionally, reading ignites children creativity and imagination. Besides, reading has a profound influence on the development of children cognitive skills as it enables them to have longer attention spans and better focus and concentration. Above all, reading improves children academic performance and imparts a love for learning. Strong reading skills lead to greater general knowledge and command over a language.

Learning to read is a key objective of EFL education and difficulties in learning to read can have undesirable consequences. EFL learners may have difficulties at the level of decoding such as trouble sounding out words, recognizing words out of context, confusion between letters and the sounds they represent, slow oral reading rate (reading word-by-word), reading without expression, ignoring punctuation while reading (Klinger, 2011). Additionally, EFL learners may have difficulties in pronouncing English sounds that are not found in their native language. Difficulties may also arise when the rules of combining sounds into words are different in the learners' native language. Moreover, patterns of stress and intonation can be transferred from the native language into the second language (Avery and Ehrlich 2008).

Arab EFL learners encounter extra burden when reading English words since their alphabetic orthography encodes language at the level of phonemes; hence, graphemes (i.e., letters) closely correspond to consonant and vowel phonemes unlike English orthography (Fender, 2003). In this context, Amara (2015) states that Algerian EFL learners commit a great number of errors due to the strong influence of Arabic on their target language spoken and written

production. The inter-language of Algerian EFL learners may also contain phonological knowledge from first foreign language (French) rules, "inter-rules", which are developed as bridges between the already acquired languages (Arabic and French) and the currently learned language (English) (Pyun 2005 qtd.in Mehlhorn, 2007). Though errors are considered as an essential part of learning, they can restrain learners from fostering their language skills. Therefore, the discovery of these obstacles which affect the learning process takes priority over any other matter. It is the first step that enables Algerian EFL curriculum designers and teachers to find solutions, design appropriate classroom activities and thus improve EFL learners' reading competence.

2. Statement of the Problem

Teaching English phonology is one of the most interesting subjects at school. Arab EFL learners face many phonological problems, as they do not know how to articulate English sounds correctly. For example, the alveolar sounds [d, t, s] are pronounced dental as in Arabic; as a result, their effects on their neighboring sounds differ from those of English language (Jarahh, 2016, p.02). Similarly, Ryan and Meara (1991) claim that Arab EFL learners may experience different types of difficulties at the word level while reading English texts. In the same vein, Fender (2003) postulates that Arab EFL learners seem to have difficulty with pre-lexical word recognition processes; i.e. the ability to identify the printed (orthographic) form of a word or lexical item in order to activate the word's meaning, structural/syntactic information, and other pragmatic or word knowledge association (pp.290-291). Based on this amount of evidence, it may be said that Arab EFL learners need an explicit phonological instruction in order to improve their language skills.

A phonological aspect that is salient to learn is, for instance, phonological awareness. It refers to the individuals' awareness of the sound structure of a spoken word (Gillon, 2007, p.2). This includes understanding the relationship between sounds and letters, and the ability to distinguish between different

sounds in words. Phonological awareness (PA) has been attached great importance in teaching English as a foreign language because it has been studied and proven to be necessary for skillful reading (eg., Liberman, et al., 1967; Wagner and Torgesen 1987; Chard and Dickson 1999; Hougen, 2016). It seems to be the missing element which would help a child move as naturally into the reading phase of the overall language acquisition picture as he did into the speaking phase (Sumpter and Szitar, 1993). Nonetheless, studieson Algerian EFL learners' phonological awareness instruction and its deep-rooted impacts are scarce, and research on its effects on learners' English reading competence and development is even less. The present thesis is a quasi-experimental study following the way phonological awareness develops Algerian EFL learners' reading competence at middle school.

3.   Purpose of the Study

The primary objective of this research is to investigate the relationship between phonological awareness and reading competence of Algerian EFL middle school pupils. It aims to shed light on the importance of phonological awareness for Algerian middle school pupils who are just beginning to learn about reading English. It examines the nature of phonological awareness in learners who are in an environment in which English is taught as a foreign language starting from the age of twelve years. It seeks to provide a clearer picture of phonological awareness as by clarifying the role of phonological awareness in developing Algerian EFL learners' reading competence. It pursues to demonstrate potential levels of phonological awareness, in particular the early sentence awareness to phoneme awareness and the relationship between letter knowledge and phonological awareness. It also scrutinizes the different effects of teaching methods on the development of explicit phonological awareness.

4. Research Questions and Hypotheses

The importance of reading for EFL learners is undeniable. It can facilitate academic success to many second language (L2) learners across educational

contexts (Ortega and Norris, 2006). Nevertheless, learners with phonological processing weaknesses tend to be poor readers (Cassar, et al., 2005). Research reveals that phonological awareness is critical for learning to read any alphabetic writing system. It also shows that instruction in speech-sound awareness reduces reading and spelling difficulties and improves learning of the alphabetic code (Adams, et al., 1998; NICHD, 2000). Algerian EFL middle schoolers with reading difficulties may still struggle with reading. Very often, they need formal instruction to recognize and work with sounds in spoken language. This includes phonological awareness, which is the ability to manipulate individual sounds in spoken words.

The current research sheds light on the contribution of phonological awareness in developing Algerian EFL middle schoolers' reading competence. It is divided into two phases: an exploratory phase and a quasi- experimental phase. In the exploratory phase, the researcher aims at collecting qualitative data on the place of phonological awareness in middle school EFL reading instruction, with focus on Tayeb Boulahrouf Middle School as a sample. This is achieved through exploring middle school EFL learners, EFL teachers, and EFL inspectors' different opinions on the topic. Moreover, a corpus analysis is conducted to scrutinize the presence of phonological awareness tasks and examine their connection to the reading parts in Algerian middle school English textbooks. Thus, the study attempts to answer the following questions and sub-questions:

RQ1: What is the place of phonological awareness in EFL reading instruction, at Tayeb Boulahrouf Middle School (TB MS) Kouba, Algiers?

This main question will be tackled through the following related sub-questions:

SQ1: How is phonological awareness incorporated in first-and fourth- year middle school EFL textbooks?

SQ2: What are the attitudes of First- and Fourth-middle school EFL learners regarding the role and importance of phonological awareness in learning to read

English?

SQ3: What are EFL teachers' attitudes towards the integration of phonological awareness within English reading instruction?

SQ4: How do school inspectors view the integration of phonological awareness within English reading instruction at the middle school level?

Results of the exploratory phase will cast light on EFL learners' weaknesses and needs, guiding the design and implementation of the quasi- experimental phase. The following research question will be at the core of our investigation:

RQ2: What is the contribution of explicit phonological awareness instruction to the reading competence of First- and Fourth-middle school-level EFL learners, TB MS Kouba, Algiers?

In order to provide an answer to this second main question, the following sub questions will be explored:

SQ1: How does explicit instruction in phonological awareness contribute to the development of First- and Fourth- year learners' phonological awareness skills?

SQ2: How does explicit instruction in phonological awareness contribute to improvements in reading competence among First – and Fourth-year EFL learners?

Building upon published literature on the role of phonological awareness on learners' reading competence (Wagner and Torgesen 1987; Chard and Dickson 1999), the following hypotheses are proposed as preliminary answers to the aforementioned inquiries:

H1. Explicit instruction of phonological awareness leads to an improvement in First- and Fourth-middle school learners' reading competence.

H2. Phonological awareness skills correlate positively with Learners' reading competence.

5. Significance of the Study

Phonological awareness is especially important for children at the earliest stages of reading development. Therefore, a child's level of phonological awareness acquisition accounts for the child's readiness to read (Milankov et al., 2021; Li, Hiver, and Papi, 2022). A considerable amount of research has demonstrated the facilitative role of phonological awareness in improving young children reading skills (e.g., Adams, 1994; Chard and Dickson, 1999; Kamil, et al, 2016). It has emphasized that success at learning to read is related to the extent to which children are aware of the phonological structure of spoken language (e.g., Pratt and Brady, 1988). Many surveys have suggested frameworks for the incorporation of phonological awareness in foreign / second language learning. These studies share a similar theoretical foundation: that phonological awareness is a crucial factor for L2 skills acquisition. They supported the transfer of phonological awareness skills across L1 and L2 (e.g., Comeau, et al., 1999). Researchers

suggested that the early acquisition of a second language develops metalinguistic awareness, which includes phonological awareness. They found that bilingual children showed high levels of phonological awareness skills when compared to their monolingual counterparts (e.g., Bruck and Genesee 1995; Bialystok, Majumder, and Martin, 2003).

In this respect, learning phonological awareness skills seem to be crucial for reading acquisition in both L1 and L2. Findings from this study are expected to hold significance for EFL teachers by helping them identify reading difficulties and weaknesses in their teaching practices and realize whether a gap exists between what they believe and what they practice in their classrooms. The current research also presents valuable information to build training programs upon existing and established teaching practices that accommodate Algerian EFL learners' needs and help them meet emerging challenges in a whole-language reading curriculum. Furthermore, it tries to spot the factors that make the

practices diverge from the beliefs concerning the integration of phonics-based approach in EFL reading classes. In addition, the study demonstrates whether the phonological awareness tasks presented in the four middle school textbooks are adequate and sufficient to develop Algerian EFL learners reading competence. Finally, this research offers its contribution to the domain of teaching English as a foreign language, especially about the role of phonological awareness in enhancing reading competence, by providing insights on Algerian EFL teachers, EFL inspectors, and EFL learners' perceptions of the topic in a non-western perspective.

6. Research Methodology

The current research work adopts a mixed method sequential design that combines both quantitative and qualitative research methods. It is divided into two phases: an exploratory and a quasi- experimental phase. In the exploratory phase, the researcher tries to evaluate the place of phonological awareness in middle school instruction and its place in Algerian EFL textbooks. Additionally, he attempts to fathom Algerian EFL learners, EFL teachers, and EFL inspectors' perceptions towards the impacts of phonological awareness on learners reading competence. To this end, two questionnaires are directed to First- and Fourth year EFL learners and EFL teachers at Tayeb Boulahrouf Middle School (TB MS), Kouba, Algiers. They are made up of a set of multiple-choice questions. In this kind of questions, respondents choose, among a number of possibilities for a particular question, one item that reflects best their answer. Moreover, an interview is destined to Middle School English inspectors working in different Algerian provinces to approach their opinions on the topic. The respondents' answers are categorized and are given numerical values to highlight the outcomes of the research and to illustrate trends in the data. Furthermore, a corpus-based analysis is employed to examine the distribution of phonological awareness skills in the Algerian middle school English textbooks.

In the quasi-experimental phase, the sample population reading competence

is tested before and after phonological awareness treatment. The participants are divided into two experimental (EXPT) groups and two control (CTRL) groups, each one including 20 respondents, among first-and fourth year learners at Tayeb Boulahrouf Middle School (TB MS), Kouba, Algiers. The quasi- experimental study is conducted during the second trimester of the academic year (2022-2023). The aim of the experiment is to estimate the influence of PA on the experimental groups reading performance, in comparison with the CTRL groups that had not received phonological awareness instruction.

7. Structure of the Thesis

This research is divided into six chapters. The first chapter provides an overview of reading competence. It accounts for reading as language learning skill, reading types, and reading processes. Eventually, it sheds light on the difference between L1 and L2 reading. Additionally, it outlines some approaches to teaching reading. Also, it defines reading competence, and presents its main components.

The second chapter defines phonological awareness through stating its importance and showing its discrepancy from other terms like phonemic awareness and phonics. It also explains some basic terms related to the studied topic. Besides, it describes the development of phonological awareness. Furthermore, it gives an explanation of phonological awareness levels and tasks.

The third chapter discusses the methodological approach and methods that are best suited to the study. It explores the various methods used to collect and analyze data, and highlights the data collection techniques that are used within the study. It also determines what consideration and justification are made for the research, design and approach in order to produce the most effective output for recommendations and conclusions within the subject area.

The fourth and the fifth chapters present the data gathered through the pupils' questionnaires and the semi-structured interviews. The main concern of

the fourth chapter is to analyze, interpret the results obtained from the collected data obtained from the exploratory phase whereas, the fifth chapter describes the scores obtained from the quasi-experimental phase.

The sixth chapter presents a discussion and an interpretation of the study results, with the aim of providing answers to the raised research questions and hypotheses. Pedagogical implications and recommendations are based upon the major findings in order to inform further research within the subject area. Contribution to knowledge, limitations and areas for future research are also highlighted.

CHAPTER ONE:

READING COMPETENCE:

A LITERATURE REVIEW

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A LITERATURE REVIEW

Introduction

Reading has become a crucial language skill not only in individuals' native language, but desirably also in their acquired foreign language. In modern societies, information is gained through oral and written means. Reading remains the best way to decipher writing. However, developing reading competence is more than just improving one's word recognition and decoding abilities. Grabe (2009) points out that "most words build phonological activation prior to lexical access" (p.24). That is to say, phonological awareness prepares readers for oral communication by retaining persistent phonological activation, since it enables them to break and blend the various components of written language. Furthermore, it allows them to recognize the pronunciation of certain infrequent words. In fact, successful reading requires the correlation of a variety of phonological, orthographic, and lexical skills. Therefore, phonological awareness tends to be a critical prerequisite skill for reading competence because it helps children understand how letter patterns represent language in print. In other words, it helps them identify and manipulate individual sounds in spoken words. Problems in developing phonological awareness can contribute to difficulties with fluent word reading.

This chapter provides some definitions of reading. Besides, it attempts to approach reading as a language skill. Also, it explores reading types and reading teaching approaches. Then, it sheds light on the significance of phonics-based approach and its connection with reading. Finally, it explains reading competence and its major components.

1.1. Reading Defined

Reading is often defined in simple statements such as: "the process of getting linguistic information via print" (Widdowson, 1979). The statement "getting information" implies that reading is a fairly one-way process from writer or text to reader. In addition, "linguistic information" is restricted to syntactic,

morphological, and lexical information. Johnston and Pearson (1982) refer to reading as "process of using prior knowledge and the cues provided by the writer to construct a model of the meaning of the text which hopefully bears some resemblance to the author's intended meaning" (p.2). That is to say, readers get meaning through the use of the strategies presented by the writer in the text in relation to readers' previous knowledge. However, Urquhart and Weir (1998) state that "reading is the process of receiving and interpreting information encoded in language form via the medium of print" (p.22). This means that reading is regarded as an interpretative or decoding skill as it engages the reader to decode the textual message by identifying printed symbols in order to interpret their meanings. Later definitions underline the importance of how every individual reader comprehends and deciphers the reading material. For example, Wolf (1993) defines reading as: "a constructive and active process that entails relating new and incoming information to information already stored in memory." (p.79). Therefore, reading is no more viewed as a decoding process of a compilation of graphemes, but rather an interactive process of communication between the writer and the reader.

Nevertheless, when we think about the various purposes for reading and the changing procedures that are called into play, it is apparent that no single explanation is going to catch the multifaceted nature of reading. A progressively far-reaching definition should address the qualities of reading by fluent readers and answer questions such as what are the main components of skilled reading? What do fluent readers do when they read? What procedures are utilized by fluent readers? How do these procedures cooperate to produce a general thought of reading?

It can be said that reading is comprehended as a complex combination of processes (Hudson, 2007; Koda, 2005; Grabe, 2009). First, reading is a thinking process, since readers adapt various meta-cognitive processing and monitoring activities for achieving their reading purposes. Second, reading is an interactive

process. Readers need to understand the embedded meanings in discourse. They make connections between what is already known (prior learning) and what is in the text. Besides, they bring their experience and prior learning to their reading in order to construct meaning and develop new understandings. Finally, it is an evaluative learning process, for we evaluate how well we are reading. This evaluation is both strategic and purposeful (Grabe, 2009). It is then necessary to think about reading as a language learning skill whose function is not just deciphering and comprehending words and texts, but additionally developing language literacy.

1.2.   Reading as a Language Learning Skill

Teaching reading is particularly fundamental for learning a second language. This is likewise so on the grounds that the greater part of teaching-learning materials is in the written form, either as textbooks or computer-based materials. Reading and literacy are thus interdependent.

Reading helps EFL learners improve all parts of the English language–vocabulary, grammar, spelling, and writing because the constant repetition of words and patterns in reading helps EFL learners to learn and remember vocabulary and grammar structures. Furthermore, it is an effective way to learn and remember the proper spelling of words. Consequently, reading has important benefits that can help EFL learners acquire the language in a faster and more flexible way.

1.2.1.   Reading and Second/Foreign Language Acquisition

Reading is one of the most important skills required for the development of EFL learners' competence. It is the essential channel for L2 input and a significant wellspring of the L2 culture and literature. It is also crucial to be integrated with literate people. Reading additionally gives excessive information about world news, new technologies, and science (Saville-Troike, 2006). Nonetheless, Grabe (2009) considers L2 reading as a combination of skills and

abilities that individuals bring to bear as they begin to read. It is characterized by being:

- Rapid and automatic process because the words need to be recognized automatically.

- An interacting process in two ways: Reading requires many skills and abilities—some of which are automatic and some of which are attentional (where one's attention is focused)—to be carried out nearly simultaneously.

- A flexible and strategic process in that readers assess whether or not they are achieving their purposes for reading.

- A purposeful process because readers monitor whether reading activities fit with their larger expectations, whether the tasks are sufficiently interesting to continue, and whether their purposes might be better served by changing the current activities or tasks.

- A linguistic process because readers extract understanding and new meaning when they interact with the text information by means of linguistic processing.   (pp. 14-15)

In addition, reading is more than pronouncing words fluently; it is a critical thinking-process which aims at finding out the possible explicit and implicit interpretations of a text (Davies, 2018). In this context, Betts (1961) says that children without thinking skills are but 'crippled readers', or 'non-readers'. For instance, many children pronounce 'fearless' correctly, nevertheless, they think it means 'afraid'. Thus, children need to be taught how to think in a reading situation because thinking is a major aspect of decision making which helps them build the final meaning (Pressley, 2005). They should always settle on decisions that encroach on their knowledge of text: when to reread a part of text, when and what kind of anticipation to make, what important information to hold in memory

and what unnecessary information to discard. Rubin (1983), for her part, posits that good readers are good thinkers because reading is a thinking act. Put differently, children who have difficulty working at different levels of cognition will have difficulty reading and comprehending their content-area textbooks. Skilled readers are those who are able to think meta-cognitively during reading. They know how to monitor and adjust their comprehension by using several reading strategies such as anticipation of text information, selection of key information, monitoring comprehension, and repairing comprehension breakdowns (Grabe, 2009). In other words, good readers need to prepare for reading, build meaning as they read, and reflect on their reading when they finish. In this sense, many studies have argued that EFL learners can develop their thinking strategies through direct instruction of reading. Certainly, they should be taught how to be self-reliant in reading. In this regard, Echeverri Acosta and McNulty Ferri (2010) found that implementing multiple reading strategies to develop eighth grade Columbian EFL learners' thinking skills has proved to have positive effects on their English reading. In a similar vein, Debbie and Richard (1986) assume that "thinking critically while reading moves us from -knowledge- to -knowing- from being –informed- to being―enlightened-." (p.35). Therefore, critical thinking skills are crucial in EFL reading instruction classes.

Furthermore, Dlugosz (2000) mentions that when reading is emphasized in young English learners' curriculum, they will be likely to foster their reading, comprehension, and speaking skills. Research shows the significant effect of age in reading performance, with the older children having better scores than younger ones for reading fluency and reading comprehension (Vlachos and Papadimitriou, 2015; Vestheim, et al., 2019; Chen, Khalid, and Buari, 2019). This infers that reading evolves with age, underscoring the significance of developing an early habit of reading in learners.

According to Al-Mahrooqi and Roscoe (2014), reading is an essential part

of language instruction because it supports learning in many ways:

- By exposing EFL learners to a variety of reading materials, teachers provide multiple opportunities for learners to absorb vocabulary, grammar, sentence structure as they occur in authentic contexts; therefore, meaning could be transferred easily.

- Reading for content information in the language classroom gives learners both authentic reading material and an authentic purpose for reading.

- EFL Learners become knowledgeable about the different subjects they are studying. In addition, reading may serve as a boosting force for overall language learning.

- Reading provides EFL learners with insights into the lifestyles and worldviews of the target language's native speakers.

- Reading allows EFL learners to be exposed to culture in all its variety, thus monolithic cultural stereotypes begin to break down.

In conclusion, L2 reading can have several advantages. It helps EFL learners to develop their learning proficiency and have better academic achievements. Besides, it gives access to a variety of authentic materials (print, video, and audio materials) in the foreign language. Into the bargain, it enhances EFL learners' cognitive thinking skills. Avid reading develops analytical abilities. Readers not only improve their general knowledge but, more importantly, enables them to recognize cognitive patterns, hence fostering their analytical thinking (Cunningham and Stanovich, 1998). Finally, it affords learners worldwide knowledge.

1.2.2. Purposes for L2 Reading

Purposeful L2 reading is conceivable during the early and middle stages of L2 learning, since reading for various purposes does not really require a similar

degree of schematic knowledge or automaticity. Grabe and Stoller (2002) record the following purposes for L2 reading in academic settings, which are arranged here by their feasible difficulty for EFL learners:

- Reading to search simple information: Scrutinize text for a particular subject, word, or expression.

- Reading for general comprehension: Understand the main thoughts and probably some supporting ideas and information.

- Reading to learn: Recall the main ideas as well as supporting details in a coherent organizational way.

- Reading to critique and evaluate: Make decisions about which aspects of the text are most important, most/least persuasive, most controversial - ponder and incorporate text content, assess its appropriateness with prior knowledge. (pp. 7-8)

In brief, L2 reading has various objectives. L2 reading aims at searching for specific information. Moreover, it aims at decoding and memorizing basic words and ideas. Most importantly, it aims at understanding the text meaning, and predicting the intent, or function, of the text (Carrell and Eisterhold, 1983). Further, L2 reading aims at relating the text and readers' prior knowledge efficiently (Nunan, 1989). That is to say, the majority of L2 readers will approach a text with a set of preconceptions which may differ from those of the author. Hence, the different frames of reference, or schemata, employed by authors or readers give rise to critique and evaluation. Wherefore, L1 and L2 reading differences should be tackled in the coming section.

1.3.   L1 and L2 Reading Differences

Grabe (1991; 2009) notes that L2 learners begin reading with a different knowledge base than they had when starting to read in their L1. For example, L1

readers already have a sufficient vocabulary base and know thousands of words before they actually start to read. They also have some grammatical knowledge of their own language. Most importantly, there are obvious morphological differences between the L1 readers' orthography and the target language orthography. Consequently, L2 readers will be slower in reading rate. Otherwise speaking, L2 readers will have less complete lexical representations for most words which may slow word recognition, syntactic processing, and semantic linkages into the network of main ideas that emerge from reading a text. In this respect, Koda (2007) says:

Unlike first language reading, second language reading involves two languages. The dual- language involvement implies continual interactions between the two languages as well as incessant adjustments in accommodating the disparate demands each language imposes. For this reason, L2 reading is cross-linguistic and, thus, inherently more complex than L1 reading. (p.1)

Koda's claim implies that second language reading is a mapping task that is replacing one mode of behavior with another. That is to say, a number of complex variables make the process of L1 reading different from reading in a second language. There are several discrepancies between L1 reading and L2 reading abilities. They may be classified into L2 acquisition and training background differences, language processing differences, and social context differences (Grabe, 1991; 2009).

1.3.1.   L2 Acquisition and Training Background Differences

L2 acquisition and training differences refer to the fact that EFL learners begin the L2 reading process with very different knowledge from L1 readers. L1 readers already possess great phonological, grammatical, and lexical cognizance of L1 while L2 learners have a much smaller L2 linguistic knowledge base when they begin reading. Therefore, reading in L2 involves a great deal of language learning. Moreover, L2 readers' knowledge of vocabulary, grammar, and

discourse structure is more limited. Consequently, L2 readers will have much less practice in L2 reading (Grabe 1991, 2009, 2014; Nation, 2008; Kusiak, 2013).

Furthermore, L2 readers will experience L2 reading differently because they have two different cognitive processing language systems (e.g., accessing the bilingual lexicon). A bilingual lexicon can be defined as "a list of word pairs deemed to be word level translations" (Haghighi et al., 2008, p.771). In other words, it is an extensive bilingual dictionary consisting of bilingual word pairs. Each word sequence consists of a word in one language paired with its translated equivalent in another language. Bilingual lexical access refers to the mental processes involved when a word from one language is perceived to the time when all its lexical knowledge from the target language is available (De Groot, 2011). Since bilinguals have two mental lexical representations for an item or concept, it is believed that these lexical representations interact or affect one another.

According to Kroll (2017), there is a level of interaction between the bilingual's two languages that shapes a dynamic system to enable comprehension and production in each language and that is reflected in both behavior and in the brain. Learners engaged in L2 reading will also experience a range of transfer effects (cognitive skills, strategies, and goals and expectations). Some transfer effects will involve interference from L1 and thus cause difficulties for L2 learners; others will facilitate L2 reading processes. Additionally, phonological, orthographic, syntactic, and lexical differences between the L1 and the L2 influence word recognition, fluency, and reading comprehension (Grabe 1991, 2009; Grabe and Kaplan 2014; Nation, 2008; Kusiak, 2013).

1.3.2. Language Processing Differences

Language processing is a complicated cognitive function that is responsive to linguistic and non-linguistic data. It interacts with other cognitive functions,

such as attention and memory, and some of these functions are part of language processing (Poirier and Shapiro, 2012). Although reading in the L1 shares numerous important basic elements with reading in a second or foreign language, the processes also differ greatly (Singhal, 1998). There are phonological, orthographic, syntactic, and lexical processing differences between the L1 and L2 readers.

1.3.2.1. Phonological Processing Differences

An extensive body of research has examined the influence of phonological differences on L2 reading. It showed that phonologically regular languages are processed in a different way than phonologically irregular languages. Therefore, the difference between L1 and L2 phonological systems can have a significant impact on learners' L2 reading as it may lead to mispronunciation and change in meaning (Kusiak, 2013).

Oney, Peter, and Katz (1997) investigated whether readers of a transparent orthography (each grapheme corresponds to a phoneme) as Turkish depend more on decoding for word recognition than readers of an Opaque orthography such as English (each grapheme corresponds to more than one phoneme). Three ages of participants were studied: second- and fifth-grade children and adults. This study suggested that rhyme had

a stronger effect in Turkish than in English and a stronger effect on younger than on older readers. Moreover, readers become less dependent on phonological processing with experience and that this reduction is more rapid for readers of English. In the same regard, Ben-Dror, Frost, and Bentin (1995) found that Hebrew speakers, when given a task to segment complete words into their component sounds (e.g., *kite* into /k/ /ay/ /t/), segmented words into sounds differently from English. Hebrew speakers were significantly slower than English speakers in correctly deleting the initial phoneme, and faster in deleting the whole syllable. The variation was attributed to differences in the way that

writing systems represent phonological information.

Correspondingly, Razfar and Rumenapp (2013) accounted for a survey made by an American teacher working at a predominantly Hispanic school. The participants were sixth grade learners who speak Spanish as their home language. Findings revealed that many of the Spanish EFL learners had a difficulty with the complex representation of silent vowels and long and short sounds. The researcher explained this is due the fact that the vowel system in Spanish is less complex than in English. Further, Spanish EFL learners tend to substitute inter-dental sounds /θ/ and /ð/ by alveolar stops /t/ and /d/, which are contrastive phonemes in English. This could lead to one not understanding or changing the word completely. For example, when the sounds [θ] or [ð] appear in the initial position of a word, Spanish ELS often pronounce it with a [t] or [d]. This changes the word "this" to "dis," or, more significantly, "thumb" to "tum." Likewise, Birch (2007) assumes that Spanish seems to involve both phonemic and syllabic processing: sa/be, pe/ro. However, English does not have a common consonant vowel syllabic pattern; instead, it generally has common on-set/rime patterns based on common spelling and pronunciation patterns across words. For instance, a common "rime" such as-an appears with many different onsets: p-, f-, sp-, as in pan, fan, span. Besides, Spanish is syllable- timed language unlike English. In Spanish, each syllable receives approximately the same amount of time. It is for this reason that Spanish sounds more staccato (short or choppy sentences or phrases) than English does.

Similarly, Zamuner, Morin-lessard, and Bouchat-laird (2014) posited that French has a different rhythm and different syllable patterns compared to English. It is a syllable- timed language because stress tends to fall on the final syllable of a phrase. In addition, it has a high frequency of open syllables (Demuth and Johnson, 2003). Besides, both French and English have the voiceless stops / p, t, k/, but in English these voiceless stops become aspirated at the beginning of a -word or stressed syllable, whereas in French, these sounds are

un-aspirated in the same positions (Markey, 1999).

In the same vein, Razfar and Rumenapp (2013) reported that Arabic phonological system does not contain some consonants such as /p/ and /v/ but it contains sounds such as /b/ and /f/.This could lead to both production and comprehension problems. Arab EFL learners often confuse words that have similar consonant structures. Additionally, the researchers claimed that the vowel system in English is more complex than Arabic. Therefore, Arab EFL learners strongly rely on the consonants when decoding words. Besides, they tend to delete or substitute vowels when reading English (Ryan and Meara, 1991). For instance, they might substitute /I/, /i/, or /e/ for /ɛ/, as in "peat" for "pit" or "hair" for "her". Another phonological discrepancy between Arabic and English is that in English, besides /h/, there are no sounds made behind the velum. In Arabic, however, there is a rich inventory of phonemes made at the uvula and pharynx (Razfar and Rumenapp, 2013). Further, Birch (2007) asserts that Arabic EFL learners have poor segmentation skills, the ability to segment words into component sounds. They have difficulty segmenting the beginning consonant of an English word from the rest of the word because of their Arabic writing system.

1.3.2.2. Orthographic Processing Differences

The impact of a language's orthography on written word processing has been widely studied, and cross-linguistic work has described the different reading processes in various languages (Hayes-Harb, 2006). Research has demonstrated that orthographic differences between languages may influence L2 reading comprehension variably when learners come from different L1 backgrounds. For instance, Chinese and Japanese orthographies

make greater use of visual processing than do readers of English (Hanley, Tzeng and Huang, 1999; Koda, 2005). As another example, words in languages such as Hebrew and Arabic, which have greater morphological complexity with

embedded grammatical information, are processed more slowly than words in a language such as English (Geva, 2008). Otherwise speaking, orthographies with respect to letter–sound relationships are either transparent (each grapheme corresponds to a phoneme) or opaque (each grapheme corresponds to more than one phoneme). That is to say, a reader looking at a word will be able to sound out the word's sounds in working memory more or less easily (Grabe and Stoller, 2011). Some languages are transparent such as Italian, Spanish, and Russian (Rosselli et al., 2013). Other languages are very opaque such as English (an alphabetic language), Japanese and Chinese (non-alphabetic languages), Hebrew and Arabic (consonantal alphabetic languages) (Valle Arroyo, 1996; Grabe and Stoller, 2011).

Increasing evidence suggests that readers process words differently in transparent and opaque orthographies. Indeed, these dissimilarities lead to variation in reading rates and fluency in word processing. For instance, Arabic speakers learning to read English may rely more on phonological processing than on morphological processing (Abu-Rabia , Shakkour and Siegel, 2013). In this respect, Roman and Pavard (1987) compared reading processes in Arabic and in French. They recorded the eye movements of native Arabic speakers reading both vocalized and un-vocalized Arabic texts. Participants demonstrated more fixations per word for vocalized texts and overall slower reading speed. The researchers noticed that the presence of vowel information in Arabic texts might create perceptual noise that slows reading. They interpreted the results as indicating that native Arabic readers achieve faster lexical access without written vowel information. In other words, consonants may be more prominent in written Arabic than vowels because they provide the information used to access the lexicon. Thus, the researchers concluded that lexical access of languages such as Arabic or Hebrew maybe very different from access in other languages like French or English.

Besides, learners' L1 orthography is believed to influence L2 reading

development and this might cause the transfer of orthographic skills from L1 to L2 (Koda, 2005, 2008).

In this regard, Chikamatsu (1996) explored whether word recognition strategies differ depending on L1 orthographic type or depth and whether L1 orthographic effects in word recognition are transferred in L2 word recognition. Lexical judgment tests using Japanese kana (a syllabic script consisting of hiragana and katakana) were given to native English and native Chinese learners of Japanese. The visual familiarity and length in test words were controlled to examine the involvement of phonological or visual coding in word recognition strategies. The responses of the English and Chinese subjects were compared on the basis of observed reaction time. The results indicated that Chinese subjects relied more on the visual information in L2 Japanese kana words than did English subjects. In addition, English subjects utilized the phonological information in Japanese kana words more than did Chinese subjects. Accordingly, these findings demonstrated that native speakers of English and Chinese utilized different word recognition strategies due to L1 orthographic characteristics, and such L1 word recognition strategies are transferred into L2 Japanese kana word recognition.

1.3.2.3. Syntactic Processing Differences

Many studies have documented the transfer of syntactic skills from L1 to L2 reading. Morvay (2012), for instance, tested 64 EFL Hungarian children in the 12th grade in order to determine the relationship between the ability to process complex syntax and foreign language reading comprehension. The research instruments involved a standardized reading comprehension test in English, and a test of syntactic knowledge in both Hungarian and English, in addition to a background questionnaire in Hungarian. The results showed that syntactic knowledge is a significant estimator for foreign language reading comprehension. The study provided evidence that the ability to process complex syntactic structures in a foreign language does contribute to one's efficient

reading comprehension in that language. Similarly, Koda (1993) made a research on transferred L1 syntactic strategies in L2 reading. The findings revealed that American, Chinese, and Korean learners of Japanese relied on different syntactic cues to comprehend the given Japanese texts. More specifically, Korean learners, whose native language utilizes particles as the major signaling device of syntactic relations among words, relied on Japanese particles to a significantly greater extent than American and Chinese learners, whose native languages depend on word order. In a similar fashion, Bernhardt (1987) asserted that German readers focus more attention on function words; in contrast, English readers seem to focus more attention on content words. This may suggest that readers of German need to pay more attention to the syntactic information encoded into functional words.

Likewise, Siu and Ho (2015) examined word order skill, morpho-syntactic skill, and reading comprehension skills of young Cantonese–English bilingual learners in Hong Kong (202 first graders and 211 third graders). Results showed that syntactic skills cross- linguistically predicted L2 reading comprehension even when age, oral language, and general cognitive skills were statistically controlled. The research hence suggested that young bilingual learners might draw on the correspondence between L1 and L2 syntax to support their L2 learning.

In a similar fashion, Hoover and Dwivedi (1998) compared highly proficient English-French bilinguals with native French speakers. The participants were divided into faster or slower readers based on their reading speed. They were given sentence pairs to read followed by a comprehension question. The first sentence was a context sentence and the second sentence was one of four types of sentences. Following is a list of the sentences of interest. A causative sentence is one in which the subject of the sentence is performing the verb in some way—the subject is the cause of the action. These sentences differ in syntactic structure from one another. Clitics are pronouns that precede the verb

in a sentence. Clitic sentences are not present in the English language. The following are examples of these sentence types and their verbatim translations (Hoover and Dwivedi, 1998, p. 9):

Context sentence:

Serge s'achetait fréquemment un bon vin rouge.

Serge would often buy a good red

Target: causative, no clitic:

Il faisait tranquillement goûter le vin avec son fromage préféré.

He had the wine be tasted quietly with his favorite cheese. Target: causative with clitic

Il le faisait tranquillement goûter avec son fromage doux préféré.

He had it be tasted quietly with his favorite mild cheese. Target: non-causative, no clitic

Il aimait tranquillement goûter le vin avec son fromage préféré.

He loved to taste the wine quietly with his favorite cheese. Target: non-causative with clitic

Il aimait tranquillement le goûter avec son fromage doux préféré. He loved to taste it quietly with his favorite mild cheese.

The results showed that there were no differences between the groups based on reading speed and comprehension; therefore, each group (faster English-French readers, slower English-French readers, and native French readers) had similar levels of proficiency in French. Nonetheless, native French readers and the English-French readers needed more processing time for the verb when it appeared in a causative sentence with a clitic. When the experimenters

compared the faster and slower English-French readers, the slower readers took more time to process the end of the sentences than faster readers when there was a clitic in the sentence. The sentences with clitics were more difficult for the slower English-French bilinguals than the faster readers. It is likely that slower English-French bilinguals may have been influenced by English syntax because they are less proficient in French than the faster English-French bilinguals. Thus, the influence of first language syntax may be based on overall proficiency in the second language.

Correspondingly, Martohardjono et al. (2005) explored how the syntactic systems of Spanish bilingual children contribute to the development of second language (L2) reading, particularly focusing on listening comprehension as a precursor skill. The study found that bilingual children who had a strong understanding of Spanish syntax in their first language showed greater success in acquiring pre-reading skills than those with a weaker knowledge of Spanish syntax.

In another study, Dussias (2003) examined how native and nonnative speakers disambiguate certain syntactic patterns. Specifically, the researcher explored whether proficient L2 speakers of Spanish and English utilize similar parsing strategies as monolinguals when reading sentences with temporary ambiguity, such as "*Peter fell in love with the daughter of the psychologist who studied in California.*" This syntactic structure contains a complex NP of the type N1-of-N2 followed by a relative clause (RC). There are two possible ways of syntactic parsing for such kind of ambiguous structures. N1 attachment, early closure, or high attachment parsing, the (RC) *who studied in California* can be considered a modifier of the *daughter*, the first noun in the complex NP (i.e., the daughter studied in California). N2 attachment, late closure, or low attachment parsing, the relative clause (RC) can be considered as a modifier of the *psychologist*, the second noun in the complex NP (i.e., the psychologist studied in California). The study employed a pen-and-paper questionnaire in Spanish and

English as well as a self-paced reading task in Spanish. Participants were instructed to read quickly, yet accurately, and press a key to proceed to the next segment of the sentence. The findings indicated that monolingual Spanish speakers took longer to read sentences that favored low attachment (new words or phrases are attached to the current clause). However, L1 English-L2 Spanish bilingual readers did not exhibit significant differences in reading times between low-attachment and high-attachment sentences. Nonetheless, these bilingual readers generally demonstrated faster reading times in the low attachment condition. On the other hand, L1 Spanish-L2 English bilingual readers were slower in reading high-attachment sentences than low-attachment sentences, showing an opposite pattern to monolingual Spanish speakers. Thus, the researcher proposed that bilingual individuals may face processing constraints and might use local attachment (i.e., high attachment) to save time and cognitive resources. This explanation emphasizes capacity demands, rather than language proficiency.

In the same respect, Momani and Altaher (2015) found that Jordanian learners encounter difficulties in learning syntactic features of English. Consequently, they often make negative transfers from Arabic to English. One specific issue is the difference in word order between Arabic and English. In Arabic, the adjective-noun order is noun + adjective (e.g.,قلم أزرق qalam azraq), whereas in English, it is adjective + noun (e.g.,blue pen). Jordanian learners frequently produce incorrect word orders, especially at the elementary and pre-intermediate levels. Another challenge for Jordanian learners is that Arabic is a null-subject language that allows both nominal clauses and verbal clauses without a subject. By contrast, English requires a subject only in verbal clauses. Consequently, Arabic learners often omit the subject in English as they construct correct statements in Arabic without a subject. For example, "ساعد غيرك يساعدك, sā3id 3ayrak, yusā3idk" (help others so they help you) is incorrectly translated to "help others, so help you" in English. This omission stems from the syntactic features in Arabic that accept sentences without a subject as correct. The covert

subject in Arabic contrasts with the overt subject that precedes the verb in English, causing word order issues. Moreover, Jordanian speakers frequently deviate in forming English verbs, such as omitting the copula verb (e.g., أخي مهندس, akhi muhandis' instead of' my brother is an engineer').

English requires the copula verb "to be' to form such statements. Additionally, Arabic learners often omit indefinite articles in English, leading to statements like "you are honest man" instead of "you are an honest man." Al-Kasimi et al. (1979) also reported instances of Arabic-speaking learners using indefinite articles instead of definite articles (e.g., "London is a capital of England").

Similarly, Noor (1996) investigated Saudi EFL learners' abilities to construct English adverbial clauses. He found that the most frequent verb errors made by Saudi EFL learners were the omission of the copula and auxiliary verbs in statements such as "we punish him unless he works harder." He also observed that Arab learners tend to misuse finite verbs (e.g., "drived," "didn't bought"). Redundant use of English prepositions (e.g., "get in inside the car") was another common mistake. Noor noted that Arabic-speaking learners often believed that "who" is always singular, leading to overgeneralization. Similarly, they thought that "whom" and "whose" are relative pronouns used in the plural form (e.g., "the people who is talking to each other are friends"). These errors can be attributed to the negative transfer and analogical reasoning from the learners' mother tongue, as Arabic relative pronouns have a shared base with phonological differences.

Furthermore, Mahfoudhi and Haynes (2009) highlighted that Arabic's rich morpho- syntactic characteristics pose challenges to reading. Arabic readers must decipher morphemes within words that often contain complex morphological structures, whereas English has a simpler pattern of roots with prefixes and suffixes. This difference in morphological complexity affects how L2 learners decode text words.

1.3.2.4. Vocabulary and Lexical Processing Differences

Grabe (1991) mentions that vocabulary knowledge is a critical feature of reading ability. According to him, L1 fluent readers are believed to recognize 10,000 to 100,000 words. This number of words is far lower in second language reading. Many studies have estimated a vocabulary of 2,000-7,000 words for basic L2 reading. The need to read fluently in a foreign language, would seem to require a knowledge of language structure and a large recognition vocabulary.

An extensive body of research shows that the vocabulary knowledge of L2 readers marks a very different starting point from that of the L1 reader. By way of illustration, L2 readers sound out words to discover their meaning is likely to be less effective than they are in L1 settings (Grabe and Stoller, 2011). In this regard, Nagy et al. (1993) studied how Hispanic bilingual learners' knowledge of Spanish vocabulary and Spanish-English cognates influence their comprehension of English expository texts. Seventy-four Hispanic bilingual learners were tested through asking them to read four expository texts containing English words with Spanish cognates (e.g., English *transform* and Spanish *transformar*). Then, a multiple-choice test was given to the participants to check their understanding of the key concepts in the texts. After that, they were asked to identify the words that had Spanish cognates. Performance on the multiple-choice test was found to be influenced by learners' awareness of cognate relationships. The findings also indicated that the effects of Spanish vocabulary knowledge on English reading comprehension appeared to be mediated by awareness of cognates. Grabe and Stoller (2011), for their part, assert that the development of L1 reading does not involve the use of cognates as support for reading comprehension. Nevertheless, cognates may play a large role in supporting L2 reading comprehension, depending on the particular L1 and L2. For example, for interesting historical reasons, French and English share thousands of cognates (e.g., table and piano), and they are particularly useful at more advanced levels of reading.

In a similar vein, Koda (1989) explored the specific effects of vocabulary

knowledge, transferred from a first language, in the development of second language reading proficiency. The study was conducted with 24 college learners enrolled in a first- year Japanese program. Specially, the study examined the effects of transferred vocabulary knowledge on: (a) the acquisition of L2 linguistic knowledge, (b) verbal processing skills, and (c) reading comprehension. It was found that: (1) L2 vocabulary knowledge was most highly correlated with reading comprehension; (2) that vocabulary knowledge was the single most significant factor differentiating learners with related L1 orthographic backgrounds from those with unrelated L1 orthographic backgrounds, and (3) that differences in test performance between the two groups became significantly greater over time. These findings seem to suggest that transferred vocabulary knowledge increases L2 reading comprehension; moreover, the initial advantage magnifies its effects over time as task complexity increases, thus enhancing the overall development of L2 reading proficiency.

In another study, Davis and Bistodeau (1993) investigated whether the reading process is fundamentally different in the native language (L1) as opposed to the nonnative language (L2). The investigators examined adult native readers of English and French. They used data collected from Think Aloud protocols (a set of tasks specified tasks that involve participants thinking aloud as they are performing) to determine how the subjects, who were proficient native language readers, approached reading in their L1 and in their L2. Results showed strong evidence that L1 vocabulary has a powerful impact upon

psychological processing during L2 reading by novices, with mediation of this effect through reliance upon prior background knowledge of text topic. The results also showed significant differences for individual word focus according to language of the text. The native readers of English made significantly more individual word focus comments when they read in their L2 than when they read in their L1 if compared to their French counterparts.

Talking about Arabic language, it is noticed that the latter has many

semantic and lexical dissimilarities with English such as the structure in the semantic field. In the field of *temperature*, English has four main divisions: cold, cool, hot and warm. This contrasts with Modern Standard Arabic, which has four different divisions: baarid ('cold/cool'), haar ('hot: of the weather'), saakhin ('hot: of objects'), and daafi' ('warm'). Apparently, Arabic does not distinguish between cold and cool, and distinguishes between the hotness of the weather and the hotness of other things. Since English does not make the latter distinction, one cannot always use "*hot*" to describe the temperature of something, even metaphorically (cf. hot temper, but not *hot feelings) (Baker, 1992).

Bearing in mind these lexical differences of English and Arabic, one can approach the lexical errors made by Arab EFL learners. In this regard, Shalaby, Yahya, and El- Komi (2009) surveyed lexical errors made by Saudi EFL learners produced in written compositions. The findings of the study suggested that L1 plays an important role in the acquisition of L2 lexemes, and in the learners' production and choice of lexical items in their writings. Ahmad and Othman (2019), made a similar study in which they identified and analyzed Arab EFL learners' lexical errors in Saudi Arabia, determining the causes of these errors, and suggesting suitable solutions. Both studies employed an error classification of lexical errors including word choice, literal translation errors, paraphrasing errors, meaning distortions errors, and collocation errors, etc. The participants were reported to make errors such as:

- **Word choice error**: "I stopped my car near the college" (parked) - incorrect choice of words.

- **Literal translation error**: "I study English language in King Khalid University" (at)- literal translation from Arabic.

- **Paraphrasing error**: "My father and mother always encourage me to study English language" (parents) - incorrect paraphrasing.

- **Meaning distortions error**: "Because this city has more advantages,

people addict in Medina" (are attracted to) - distortion of meaning.

- **Collocation error**: "It has a Holy Mosque which people come over the world to pray there" (from all over) - incorrect collocation.

Nevertheless, other studies tried to fathom the cross-linguistic relationships between vocabulary and reading comprehension. For example, Farran (2016) examined the influence of vocabulary on reading comprehension in dual language learners of English and Arabic. The findings of the study supported the Linguistic Interdependence Hypothesis proposed by Cummins (1979), which posits that the language skills in L1 and L2 are interdependent, thus influencing each other and connecting to reading comprehension in bilingual speakers. The findings revealed that vocabulary skills in each language predicted reading comprehension within the same language, after the effect of children's chronological age was taken into account. Interestingly, results confirmed the cross-linguistic effect of vocabulary, Arabic vocabulary predicted English reading comprehension above and beyond English vocabulary skills and children's chronological age. However, English vocabulary did not contribute any additional variance in Arabic reading comprehension above and beyond Arabic vocabulary and children's chronological age.

As mentioned in the previous section, most lexical errors bear the sign of interference from the mother tongue; therefore, they are inter-lingual errors. The majority of the inter-lingual errors are caused by the direct word-for-word translation from the mother tongue into English. Some of these translated versions may not be intelligible to the native speaker of English. In Chinese language, Yang and Xu (2001) claimed that this type of error is the result of the poly-semic nature of Chinese words. A singular Chinese word often has multiple meanings, each of which has a different English equivalent. The selection of an inappropriate English equivalent causes errors. For example, I shoot the ball into the basket five times and won ten **marks** for our team **(points)**. What the student should have said is "ten points" instead of "ten marks." Since the Chinese word

分(pronounced as /fen/) comprises at least four meanings (point, mark, cent, and minute) each of which has a different English equivalent, the student was confronted with a choice among the four meanings and thus made a wrong selection. Another type of lexical errors is the wrong collocation between words (eg., it (technique) isn't advanced and it can't raise the speed of the car). The error occurs in the collocation between the verb "raise" and its object "speed". Namely, this is an error of the form (surface structure), not an error of content (deep structure). English native speakers will have no problem in figuring out the meaning of the sentence. However, this statement is still odd from a native speaker's point of view. The Chinese equivalent of raise is 提高 (pronounced as /ti gao/), which has four English equivalents (increase, raise, heighten, and elevate). The right choice is "increase", but the student failed to distinguish between these four synonymous words and thus produce the correct form. It is claimed that such a lexical deviation is due to the student's familiarity with this verb (a high frequency word).

Despite all these cross linguistic differences, Bernhardt (2011) confirms that reading and vocabulary knowledge are always conjoined. Besides, Brisbois (1995) study indicated that vocabulary knowledge was the lion's share of what might be termed language knowledge. In other words, vocabulary acquisition in the context of reading is absolutely key to understanding second-language text processing. In this context, Zhang (2012) examined the contribution of vocabulary and grammatical knowledge to second language reading comprehension among 190 advanced Chinese EFL learners. Results showed that vocabulary knowledge is significantly related to reading comprehension; grammatical knowledge showed a weak contribution to reading comprehension after controlling for the effect of vocabulary knowledge. In addition, learners' implicit knowledge of grammar had a stronger relationship to reading comprehension than explicit knowledge, over and above the effect of vocabulary size.

1.3.3. Social Context Differences

Differences in reading abilities of EFL learners may also be attributed to literacy practices that L2 learners bring from their L1 cultural backgrounds. In some cultures, literacy is relatively uncommon. However, it is pervasive in other settings like the US, the UK and Australia. Moreover, assumptions about how to use text resources also vary from one individual to another (Garton and Pratt, 2009; Wagner, 2009). Individuals are socialized in their L1 education to engage with texts in specified ways (Haeri, 2009; Lundberg, 1999). Some social groups see texts as unchanging; others consider texts as serving utilitarian purposes; others view texts as sources of truth to be studied. Yet other societies emphasize certain uses over others, often placing greater value on sacred texts or other highly valued traditional texts (Grabe and Stoller, 2011). In most cases, L2 learners will have some difficulties framing assumptions presented in L2 texts when these texts make use of cultural assumptions that the L2 learners do not share (Grabe 1991, 2009; Nation, 2008; Grabe and Stoller, 2011; Kusiak, 2013). Therefore, reading is a multifarious process that entails learners to grasp a number of linguistic and cognitive skills.

1.4.   Reading Processes

Reading abilities are divided into lower level and higher-level processes. All processes occur in working memory. Lower-level processes involve decoding such as letter identification, word recognition, syntactic parsing, and proposition encoding (Nassaji, 2003; Yamashita, 2013). Higher level processing involves those processes that more closely align with strategies of comprehending texts:

(a) Form main idea meanings,

(b) Recognize related and thematic information,

(c) Build a text model of comprehension, and

(d) Use inferencing (ability to draw a logical conclusion based on explicit

information in a text), background knowledge (readers' general, cultural and topic-specific knowledge used in interpreting a text.), strategic processing (individuals' ability to make conscious choices, monitor progress, evaluate, and regulate their own behavior), and context constraints (the constraints imposed by the immediate sentential context).

The elements of constraints include word order, word form, redundancy, the distance between lexical items, and the interaction among these elements within a sentence) to create a situation model of reading (Hannon, 2011; Perfetti and Adlof, 2012).

1.4.1. Lower Level Processing

Numerous investigations on reading have shown that beginning readers need to establish strong connections between letters and the sounds of the language. Put differently, training in phonological awareness predicts later reading development among children (Ehri, 2006; Cain and Oakhill, 2012). While L1 reading in other languages may not require that same level of instructional effort as does English for phonological awareness, all young learners benefit from explicit instruction in letter-sound correspondences (Lundberg, 1999). Besides, research on English L1 vocabulary knowledge has demonstrated that vocabulary knowledge is highly correlated with reading ability. Thus, good readers have very large and automatic recognition-vocabulary knowledge (Grabe 2009; Grabe and Stoller, 2011). Additionally, research on L2 vocabulary knowledge has shown that vocabulary is correlated with L2 reading. Droop and Verhoeven (2003), for example, reported a strong relationship between third and fourth grade L2 learners' vocabulary knowledge and their reading abilities. They observed that the bigger the size of vocabulary is the better reading comprehension scores are. Similarly, Nienhuis (1991) and Carver (1994) reported that at least 90% of the words in a text should be familiar for good reading comprehension. Qian (2002) also found that the dimension of vocabulary depth is as important as that of vocabulary size in predicting

performance on academic reading and that scores on the three vocabulary measures tested are similarly useful in predicting performance on the reading comprehension. The study confirmed the importance of the vocabulary factor in reading assessment. In addition, Saville-Troike (2006) mentions that fluent reading requires a large recognition vocabulary (some estimates range up to 100,000 words).

Research on L1 morphological and syntactic knowledge (the understanding of how phrases, clauses are formed to create sentences) equally shows that morphological knowledge (the understanding of how words are formed) contributes to developing reading. Anglin et al. (1993), Nagy et al. (2006), and Wagner et al. (2007) all argue that morphological knowledge is very crucial to more advanced word recognition and reading development. There is also evidence that both grammatical knowledge (i.e., the ability of a child to reflect on the grammatical structure of sentences) and discourse knowledge (i.e., the ability of a child to recognize patterns and features of discourse that reflect genre, writers' intentions, flow of information, text structure and types of information being presented) play roles in L1 reading (eg., Tunmer and Grieve, 1984; Grabe and Stoller, 2011; Trabasso and Bouchard, 2002; Lesaux, Lipka and Siegal, 2006; Perfetti and Adlof, 2012). Studies on L2 syntax have demonstrated that there are strong relationships between these language knowledge bases (syntax and discourse awareness) and reading comprehension (Grabe, 2009; Shiotsu, 2010). According to Grabe and Stoller (2011), grammatical and discourse knowledge are prerequisites of successful reading comprehension. Grammatical knowledge seems to be processed automatically by fluent readers. For the most part, fluent readers are not misled by the structural information that is quickly assembled (e.g., subject, verb, object=doer, action, recipient), and it would be inefficient to wait for confirming information from inferencing or from context clues (hints found within a sentence, paragraph, or passage that a reader can use to understand the meanings of new or unfamiliar words).

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Furthermore, discourse knowledge suggests that L2 learners need some foundation of structural knowledge and text organization in L2 for more effective reading comprehension. Good readers know how a text is organized, including (culture-specific) logical patterns of organization for such contrasts as cause–effect and problem–solution relations (Saville-Troike, 2006). In contrast, poor readers are unaware of text organization; moreover, they fail to identify the text main ideas and gain information. Alternatively, they are incapable of regulating the reading process unconsciously, yet they would use context clues so that to approach the meaning of difficult words. That is to say, they seldom reflect upon what they have read or seek out additional information about a topic for a better comprehension (Texas Education Agency, 2002; Pressley, 2002; Saville-Troike, 2006; Grabe and Stoller, 2002; Grabe, 2009).

There is strong research evidence to show that fluent readers automatically process the meaning of texts at the same time that automatic syntactic parsing is being carried out (Perfetti and Adlof, 2012; Rayner et al., 2012). In this respect, Adams (1990) mentions a number of good readers' features as opposed to poor readers. He observes that good readers spontaneously caught on to the alphabetic nature of print. Moreover, they rarely *err* in reporting the order of the letters in either real words or regularly spelled non-words (units of speech that appears to be an actual word in a certain language, while in fact it has no meaning in the lexicon such as *bome* and *mave*). Furthermore, they recognize words holistically, like logograms. More importantly, they decode words rapidly and automatically. In contrast to good readers, most poor readers tend to differ in the speed with which they can name words and letters. Besides, their insufficient knowledge about smaller-than-word spelling patterns explains their special difficulty in reading pseudo- words (pronounceable strings of letters that have no meaning). Moreover, letter reversals and transpositions are frequently cited as characteristic of very poor readers.

1.4.2.   Higher Level Processing

Higher level processing refers to the readers' conscious self-observation of the text. The reader extracts semantic network of ideas from the text. The readers' comprehension is strengthened by their background knowledge, inferencing, and attitudes to the text information (Kintsch, 2012). Readers form links across ideas that are repeated, are referred to again, or are inferred in order to maintain a coherent interpretation of what they read. This emerging network of ideas is what produces the gist of the text. Active readers interpret the text to decide what it should mean to them. That interpretation is the information that is also stored in long-term memory as learned information (Kintsch, 2012).

Readers' ability to attend selectively to certain information and to respond strategically to this information is represented cognitively in working memory. Readers are all able to focus their attention on some point and "think" about it. During reading that requires learning, this attention typically involves strategic reading. L1 research on strategic processing during reading (e.g., inferencing, comprehension monitoring) demonstrates that strategic processing and meta-cognitive awareness (conscious awareness of one's knowledge. More specifically, the ability to reflect on what one knows. Such knowledge allows a reader to plan, regulate and monitor his/her reading) influence reading comprehension (Grabe, 2014). In this context, discourse comprehension researchers have revealed that inferencing that arises from 'reading-to- learn' has an important impact on comprehension (Goldman and Rakestraw, 2000; Perfetti and Adlof, 2012). Correspondingly, comprehension monitoring appears to be a good precursor of comprehension abilities. Meanwhile, these meta-cognitive abilities are not simple reading strategies. Rather, they represent a range of strategic responses to text difficulties.

1.5.   Reading Types

One of the primary things of reading is that there are various types, and

the learners ought to know about which strategy is generally most suited, contingent upon the reading category of the text. Instructing EFL learners to know the diverse reading kinds is indeed crucial. This is because it allows learners to utilize an appropriate technique that fits the studied text, particularly under test conditions when time constraints become an integral factor and choices should be made relying upon time accessibility. The lack of reading represents a serious obstacle to the development of one's language proficiency. In spite of the fact that reading is a massively valuable activity, not all styles of reading are made equivalent. Indeed, there are types of reading that are more useful in certain contexts, and less so in others.

1.5.1. Intensive Reading

Intensive reading implies learners reading in detail with specific learning aims and tasks. Palmer (1921) believes that intensive reading means that "the readers take a text, study it line by line, and refer at every moment to the dictionary about the grammar of the text itself." (p.165).In other words, it is the systematic deconstruction of a text that seeks full understanding of passages. This is done via examining every word, phrase, or collocation that readers do not understand. Nation (2008) considers "intensive reading as a good opportunity for making learners aware of how the various vocabulary, grammatical, cohesive, formatting, and ideas content aspects of a text work together to achieve the communicative purpose of the text." (p.47). Otherwise speaking, learners' knowledge of how content, lexical, and grammatical structures rehash themselves helps them to comprehend the meanings embedded in the text.

Long and Richards (1987) define intensive reading as "a detailed in-class analysis, led by the teacher, of vocabulary and grammar points, in a short passage" (p.228). It is usually described as a classroom-oriented activity where learners are strongly engaged in looking inside the text. Brown (1988) assumes that intensive reading "calls attention to grammatical forms, discourse markers, and other surface structure details for the purpose of understanding literal

meaning, implications, rhetorical relationships, and the like." (pp. 400-450). That is to say, it demands learners to focus on the linguistic or semantic information of the text since they should pay attention to surface structure details such as grammar and discourse markers. Moreover, they should be capable of recognizing the key words used in the discourse.

To sum up, this style of reading frequently alludes to the cautious reading of shorter, progressively difficult target language texts with the objective of complete and exhaustive comprehension. It is likewise connected with the instructing of reading as far as its skills. Texts are scrutinized intensively so as to present and work on reading skills,

for example, extracting the main idea of a text from the detail, discovering pronoun referents, or speculating the meaning of unfamiliar words. In the EFL classroom, intensive reading activities can include searching a text for specific information to answer true or false statements or filling gaps, matching rubrics to paragraphs, and putting jumbled paragraphs into the correct order.

Nonetheless, Alderson and Urquhart (1984) argue that "such a pedagogic practice-- of focusing on the language of a text--may be justified as a language lesson, but it may very well be counterproductive as a reading lesson."(pp.246-247). Otherwise speaking, intensive reading aims at building language knowledge rather than developing reading proficiency. This is one of its main drawbacks. Another weakness is that intensive reading does not take into consideration whether the features studied in a specific text will be useful when reading other texts (Nation, 2008). Gilnerand and Morales (2010) believe that "intensive approaches simply do not prepare learners to use the language purposefully. Learners spend too much time and energy trying to understand the individual words (that is, they have not developed a large sight vocabulary) and are unable to move beyond word-level analysis." (p.14). That is to say, it is an activity that requires great mental effort and focus. As a result, the learners must be careful to follow specific guidelines, or else risk boredom and burnout.

Because of the mentioned shortcomings, a supportive approach is therefore suggested. It comprises learners reading large aggregates of texts for enjoyment and improving reading proficiency. This approach is known as 'extensive reading.'

1.5.2. Extensive Reading

Harold Palmer (1917) and Michael West (1926) were the first to initiate the theory of extensive reading as an approach to foreign language teaching and to reading, in particular. Harold Palmer coined the term "extensive reading" to distinguish it from "intensive reading". He approached extensive reading as reading "rapidly, book after book and with a focus on the meaning and not the language of the text". Later on, Michael West developed the extensive reading methodology and recalled it "supplementary reading" (Kelly, 1969; Day and Bamford, 1998; Firth, 2009).

Nation (2008) describes it as a form of learning that fits meaning-focused input. Namely, the readers should focus more on the global meaning rather than the language features of the text. In the same vein, Brown (1988) clarifies that the main goal of extensive reading is to "achieve a general understanding of a text." Learners should skim materials with the intention of comprehending the main ideas rather than focusing on specific details. Grellet (1981) mentions two other crucial purposes of supplementary reading. She believes that learners engaged in this sort of reading often look for enjoyment and fluency. Long and Richards (1987) explains extensive reading as "occurring when learners read large amounts of high interest material, usually out of class, concentrating on meaning, "reading for gist" and skipping unknown words" (p. 216). In other words, reading extensively means simply reading thoroughly, without bothering oneself with the trivial details of meaning and the infrequent words. This is fulfilled by reading for large swaths of time, and looking up words only when learners deem it absolutely necessary to their understanding of the text.

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Research strongly emphasizes the important role of extensive reading in second language curricula. Nuttall (1982) asserts that "the best way to improve someone's knowledge of a foreign language is to read extensively."(p.168). As a result, extensive reading should become a "standard practice" in second language learning. Elley (1996) states that "instructional programs that stress teacher directed drills and skills are less beneficial in raising literacy levels than programs that try to capture learners' interest and encourage them to read independently." (p.53). Extensive reading is more enjoyable and beneficial for language learning than traditional grammar instruction approaches. Grabe (2009) assumes that extensive reading provides EFL learners with opportunities to become engaged with interesting ideas. Extensive teaching programs have a number of principles (Day and Bamford, 2002; Grabe, 2002).

- The reading process should be quick and thorough. It is usually associated to enjoyment, learning, and general comprehension.

- The reading materials should be easy, interesting, and attractive such as: magazines, comic books, newspapers.

- Various types of reading on a wide range of topics should be available in class and out.

- Free and individual reading should be encouraged in classroom. Teachers should have their learners share and recommend reading materials.

- Teachers' guidance is important in extensive reading classes. Teachers should find out what learners like to read and why. Moreover, they should create ways to interest learners in reading topics.

According to Hedge (2003), "extensive texts allow learners to build their language competence, progress in their reading ability, become more independent in their studies, acquire cultural knowledge, and develop confidence

and motivation to carry on learning." (pp.204-205).This means that extensive reading has some impressive gains. It enhances learners' reading independency as EFL learners are no more passive containers. Besides, it develops learners' inducement and overall communicative competence.

1.5.3.Reading Aloud

Reading texts aloud is a very crucial activity for building the knowledge required for successful reading. According to Wright (2015), "read alouds are sessions during which a teacher, parent, or other proficient reader reads aloud from a book or other text to one or more learners" (p.197). Put differently, reading aloud is an instructional practice where teachers, parents, and caregivers read texts aloud to children. The reader combines variations in pitch, tone, pace, volume, pauses, eye contact, questions, and comments to produce a fluent and enjoyable delivery. The reading aloud process has many advantages to literacy development.

Research evidence demonstrates that reading aloud is a powerful way to engage children in the literacy process. It improves their reading, writing, speaking, listening— and, best of all, their attitudes about reading (Barrentine, 1996; Trelease 2001; Sipe, 2000). Besides, reading aloud to children boosts their vocabulary knowledge and their reading comprehension. It also shows that reading aloud can affect reading interests and the quality of a children language development (McCormick, 1977). In a similar vein, Trachtenburg and Ferruggia (1989) examined the influence of oral language development through the shared book experience with high-risk beginning readers. They claimed their learners developed a rich language base and came to understand the power of words by listening to stories, reading stories, and responding to stories through a variety of engagement activities. In addition, Klesius and Griffith (1996) postulated that the read- aloud experience improves learners' vocabulary and comprehension. They also noted its potential to foster motivation to learn to read. Besides, it evaluates the progress of the learner (Ammon, 1974).

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Reading aloud is very effective with helping EFL learners learn to read. It helps the teacher scaffold the EFL learners' understanding of the reading materials. During the read aloud, the EFL teacher models how to read with fluency, accuracy, and expression. When teachers read aloud, they are demonstrating the connection between oral and written language (Wright, 2015). Moreover, reading aloud to young EFL learners will expose them to a rich, organized, and interesting language model as an alternative to the tongue-tied language of their peers (Trelease, 2001). Most importantly, reading aloud helps children learn about written syntax and vocabulary and develop phonological awareness and concepts of print, all of which are closely linked to learning to read and write (Gillanders and Castro, 2007). Nevertheless, it is critical to notice that reading cannot be gained via mere exposure; it should be instructed through formal instruction. In addition, the use of a variety of approaches can facilitate reading instruction.

1.6.   Approaches to Teaching Reading

There are two main approaches to reading instruction, the 'meaning–emphasis' or a whole language approach and the phonics-based reading approach. Each approach represents different beliefs about the processes involved in reading and the way in which children acquire reading skills.

1.6.1. Meaning–emphasis Approach

Meaning–emphasis approaches include such methods as 'shared book experience', 'guided reading', 'literature-based reading' and 'language-experience approach'– all of which can be classified under the title 'whole language' (Westwood, 2004). Meaning- based approach or a whole language approach to reading has four key features (Anderson, 2003). First, it is a literature-based approach. Literature-based instruction is designed to help children develop an enjoyment of literature while at the same time developing literacy skills (Linse and Nunan, 2005). In this context, Brewster, Ellis, and

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Gerard, (2000) believe that literature-based instruction improves children intellectualism and creativity. Besides, it provides children with authentic English language and culture. Second, whole language is student-centered; the focus is on the individual reader choosing what he or she wants to read. Third, reading is integrated with writing. Classes work on both skills simultaneously. Finally, emphasis is on constructing meaning. The focus should be on meaning and keeping the language whole, as opposed to breaking it down into smaller units. Whole language is a method, not the goal (Anderson, 2003). Whole language theory posits that learning to read is a natural process (Cambourne1988; Riley 1999). It does not need to be broken down into separate skills and concepts and directly taught. Therefore, it is often termed 'holistic', with children 'learning to read by reading' rather than putting together component skills (Goodman 1989). It assumes that authentic literacy experiences enhance children understanding of the real nature and purposes of reading whereas the teaching of component skills may fail to achieve this goal. As a result, whole language teachers do not use teaching methods that break learning down into steps. They are very much against using reading activities designed to practice certain language skills in isolation (Anderson, 2003).

According to Westwood (2004), the implementation of the whole language approach usually involves the following teaching strategies:

- Reading good literature to children every day and having 'real' literature available for children to read for themselves.

- Providing time each day for shared reading.

- Discussing and reflecting upon stories or other texts.

- Encouraging silent reading.

- Providing daily opportunities for children to read and write for real purposes.

- Encouraging children to invent the spelling for words they do not know

- Adopting a conference-process approach to writing (drafting, sharing, editing and revising with feedback from teacher and peers. (p.40)

Although, the whole language approach develops children literacy, it may not suit the learning characteristics of all children. In this regard, Stahl and Miller (1989) found that the whole language approaches produce weaker effects with children labeled specifically as disadvantaged and with low socio-economic status than they do with the most able children. Moreover, Ehri et al. (2001) refers to the poor performance of children when the teaching of reading is based only on meaning emphasis and not on phonics. In fact, children may encounter many low-frequency words (infrequent words) in 'real' literature. This means that children spend much time and effort in initially identifying and later storing these words as sight words. Difficult texts may force the children to rely too much on guessing as their main word recognition strategy (Tunmer and Chapman, 1999). In addition, Hulme and Snowling (2013) state that deficits in letter–sound knowledge, phonemic awareness, and rapid automatized naming skills appear causally related to problems in learning to read in many alphabetic languages. Nonetheless, whole language proponents often fail to acknowledge that some children do not pick up the alphabetic principle through simple immersion in print and writing activities because they are not skilled in using contextual cues and therefore need systematic direct instruction (Vellutino 1991; Share and Stanovich, 1995). All in all, the whole language approach is often criticized because its holistic framework tends to depreciate the importance of skill development, particularly the explicit teaching of the alphabetic principle and phonic decoding skills (Westwood, 2004).

1.6.2. Phonics-based Reading Approach

As indicated by (Fowler, 2011), understanding the idea of phonology is crucial to understanding 'reading acquisition'. Since most of children start

'reading instruction'; when they are exceptionally 'skilled users' of a 'spoken language.' Besides, the language they will apprehend to read is ordinarily the language they talk, yet for the most part an alternate vernacular of it. In case 'beginning readers' can figure out how to delineate 'printed shapes' of words onto the words' phonological shapes, they will profit of their competency within the spoken communication once they read. Put differently, a language user's phonological capability seems to give a passage or interface by which readers can get as far as anyone is concerned of the 'spoken language'. Getting phonology, at that point, may give modicum of knowledge about reading, reading competence, and reading problems. In the course of recent decades, a debate has arisen in the field of education about the most adequate approach for children reading development. One term cited in this debate is phonics-based reading approach.

Bald (2007) defines "phonics as the systematic teaching of the sounds conveyed by letters and groups of letters, and includes teaching children to combine and blend these to read or write words." (p.1). Otherwise stated, phonics-based reading endeavors to parse words into little and basic segments. It is instructed by having children use letter sounds or phonemes. This method enables children to recognize letters with distinctive sounds and combine them together– decoding. This permits children to sound out new words in terms of their gained phonemic knowledge. It also allows children to discriminate between sounds such as/**f**/and /**l**/and combine them with other sound clusters to get either "fight" or "light". Meanwhile, the child becomes also capable of joining the initial two words, so that to get "flight". In brief, phonics instruction is a natural system of learning how to read. It teaches children the identities of the letters, teaches them the sounds that each represents, and teaches them by having them write. Once this is done, the children will forever after be able to read and write, not just the words they are taught, but any word in the language (Flesch, 1955, 2012). Therefore, phonics based reading approach is very helpful.

This approach has a number of advantages on both L1 and L2 reading competence. Bhat, Griffin and Sindelar (2003) made a study to determine if middle school learners with phonological awareness deficits could improve their phonological awareness skills after instruction, and if these skills could impact word recognition. Results indicated that learners' posttest scores were significantly higher than the mid-test scores, and mid-test scores were significantly higher than the pretest scores after being instructed phonological awareness. This confirmed that phonological awareness plays a critical role in learning to read. Consequently, phonological awareness instruction is becoming a recognized part of reading acquisition. Relatedly, Lemons and Fuchs (2010) mentioned the results from a review of 20 studies and indicated that children with Down Syndrome rely on phonological awareness skills in learning to read and suggested that phonics-based reading instruction may be beneficial for at least some of these children. Similarly, Bruck et al. (1998) compared the spelling skills of grade 3 children who had received whole language instruction with those of children attending phonics program via asking them to spell a number of words and non-words (pronounceable strings of letters that have no meaning). Findings showed that phonics group produced more accurate words than the whole language group. Moreover, the phonics children's spellings included more conventional, phonologically accurate patterns.

Likewise, Huo and Wang (2017) investigated the effectiveness of phonological-based instruction in the EFL context. It was consistently found that this type of instruction is effective among primary school EFL learners on reading underlying phonemic awareness and non-word reading skills. Hence, they suggested that phonological-based instruction should be included in the current EFL curricula for a better reading acquisition. From the above, the current study will adopt the phonics-based reading approach since it is considered to be one of the most effective methods for teaching children how to read and write. Particularly, it offers a wide variety of benefits to beginning readers who are just developing a basic understanding of how sounds are

associated with single letters, groupings of letters and full words. In other words, phonics instruction enables children to identify how a word sounds. As a result, he/she becomes able to decode written language. A child who learns by look and say, on the other hand, only learns to identify particular words. He/she may fail to acquire skills that are needed to work out the sound of unfamiliar words, or ones whose sounds or meanings have been forgotten. Moreover, phonics instruction helps beginning readers to be fluent through equipping them with the necessary decoding skills. It allows them to recognize words and non-words accurately without the need to make guesses (Adams, et al., 1998; Howe, 2012; Bald, 2007, National Reading Panel, 2000). Briefly, phonics instruction raises children's phonological awareness and thus enhances their reading competence.

In the long run, phonics- based instruction is one of the best ways that helps children to read or decode words accurately. A skilled reader always has insight into phonics. Moreover, a child should not skip the stage of learning phonics (Daniels, 1957).Within this framework, a number of hypotheses which emphasize the importance of phonological decoding and its connection to reading have been proposed such as the self-teaching hypothesis.

Share (1995) has proposed 'self-teaching hypothesis,' where children become proficient in recognizing printed words through a self-teaching process rather than passing through well-defined stages. According to this theory, phonological decoding functions as a self-teaching mechanism that enables the beginning reader to independently acquire the detailed orthographic representations necessary for fast and accurate word recognition and for proficient spelling. It assumes that children acquire orthographic representation of the word (learn specific information about the word's orthography) from their successful decoding attempts. High frequency words, i.e., words that children decode as often as possible in early reading encounters (e.g., he, an, are) permit entrenched orthographic representations that children can get to effectively, with little decoding required. Then again, less familiar words require decoding until an

adequate number of exposures to the word allow for the orthographic representation to be accessed (Share, 1995; Share and Stanovich, 1995).

From the outset, children may learn basic one-to-one letter-sound correspondences; however, with frequent decoding and exposure to printed words they gain information on progressively complex grapheme-phoneme connections. At first, consonants /eg., c, f/ are almost certain than vowels to be decoded effectively, in light of the fact that grapheme- phoneme associations are commonly more consistent. Final consonant decoding regularly pursues successful beginning consonant decoding (Share, 1995). With print presentation, early grapheme-phoneme correspondences become 'lexicalized,' i.e., they come to be related with specific words. As children become more receptive to spelling regularities past the degree of basic phoneme-grapheme associations, this orthographic knowledge is utilized to adjust the initial lexicalizations fostered by children. Basic knowledge of sound-letter correspondences is utilized as a beginning platform for reading acquisition (Share and Stanovich, 1995).

According to the self-teaching hypothesis, the essential component involved in the development of fluent word reading is the capacity to decode words using knowledge of grapheme-phoneme relationships. The ability to process visual data, i.e., store and retrieve orthographic data is considered as a secondary component reliant on effective phonological processing.

In this light, phonological awareness skills play a fundamental role in the self- teaching hypothesis. At a first stage, children who approach decoding with a degree of phonological awareness and letter-sound knowledge will be successful in their decoding attempts of printed words, on which visual and orthographic processing are dependent. Consequently, this decoding success will increase children's knowledge of how phonemes in words can be segmented and blended together. This, in turn, will lead to increased success in decoding and the establishment of accurate orthographic representations of words (Gillon, 2007).

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Thus, the self-teaching hypothesis contributes to attributing an essential role to phonological awareness skills and so to building competence in reading. On those grounds, reading competence should be defined; furthermore, its major components should be presented in details.

1.7.   Understanding Reading Competence

This section defines reading competence and presents its main components: word recognition, reading fluency, and reading comprehension.

1.7.1.   Reading Competence Defined

Reading competence as a complex cognitive process consists of three components: word recognition, reading fluency, and reading comprehension (Li, 2010). These are the three pillars which make up a successful reading.

The term "competence" is often associated with complex combinations of abilities and skills that are needed in specific real-life situations. It is the cognitive prerequisites to coping with a specific range of situations (Klieme, Hartig, and Rauch, 2008). Reading competence is defined from multiple perspectives.

The Goodman Model (1967) stresses the idea that 'efficient reading' is both 'predictive' and 'selective' while Automatic Information Processing Theory (1974) claims that reading is a 'complex skill'. It requires the correlation of many component processes such as visual, phonological, episodic, and semantic memory systems within a short lapse of time. Verbal Efficiency Theory (1985) points out that reading refers to the range of complex interactions between lower-level processes (word-level) and higher level processes (text-level). The degree of quickness and smoothness through which reading local processes are functioned is known as 'verbal efficiency'. The Simple View of Reading (1990) suggests a different way of defining reading competence. It asserts that reading entails the mastery of two basic operations-decoding and linguistic

comprehension. Decoding is defined as "efficient word recognition". While linguistic comprehension is defined as "the ability to extract and interpret information from sentence and discourse." The Rauding Theory (1990) puts forward another way of approving reading competence. It concludes that clues of successful comprehension differ in accordance with reading purposes. Further, reading has five basic gears. In the lower reading gears (scanning and skimming), competence involves rapid information extraction. In the higher gears (memorizing and learning), meticulous and complete text understanding is more important than speed. The rauding gear is the most essential in reading process. It is a person's accurate ability to comprehend a 'complete thought' in a sentence.

Reading competence refers to the skills, abilities, and knowledge that are required to act successfully in reading situations (Klieme, Hartig, and Leutner, 2008). More precisely, it involves a particular array of the reader's knowledge of text structures, conventions, topic, claims made within the text, and the motivation to put forth the effort that this level of processing demands (Alexander and Fox, 2018). It is characterized by being multidimensional since it combines cognitive (characteristics of the person that affect performance and learning), motivational (set of needs that explain the behavior of people), neurophysiological (effects which influence the brain's nerves send signals back and forth), and socio-contextual factors (the variables that originate from outside of the student). Besides, it is changeable because reading competence changes across lifespan. Moreover, it is intentional since it includes the intentions and purposes which every reader comes to the text (Chodkiewicz, 2013).

Furthermore, it reveals a continuous interaction between learning to read and reading to learn. Finally, it includes the intentions and purposes with which every reader comes to the text. Its three components (word recognition, reading fluency, and reading comprehension) are closely related to one another as word recognition contributes to reading comprehension via reading fluency. Given all this, there seems to be a strong exigency to investigate, the authentic relationship

between reading, decoding, fluency, and comprehension.

1.7.2.   Reading Competence Components

Reading competence entails three main components and combines various identification skills. It is a complex behavior including decoding words, developing fluency, and improving comprehension (Hibbard and Wagner, 2003).

1.7.2.1. Word Recognition

Word recognition or decoding is a key skill for learning to read that involves taking apart the sounds in words (*segmenting*) and blending them together (Rathvon, 2004). According to the National Reading Panel (2000), the ability to convert letter subunits into sounds comes from readers' knowledge of the alphabetic system. Otherwise   speaking, the readers' realization that speech sounds can be represented with symbols.

Decoding or word recognition skills are the major determinant of reading proficiency in the early grades (Juel, 1988; Stanovich, 1991) and contribute a substantial amount of variance to reading ability in adulthood (Cunningham and Stanovich, 1997). Without accurate, fluent word recognition, comprehension is impaired because so much attention must be allocated to the decoding process (Share, 1995; Kuhn et al., 2010).

Hoover and Tunmer (1993) claimed that skilled word identification is the capacity to quickly extract a representation from printed input that allows access to the appropriate entry in the mental lexicon. Such recognition, which accomplishes a connection between a graphically based coding of letters (a graphemic coding) and the mental lexicon, allows retrieval of semantic data at the word level. Two general types of mechanisms have been proposed as explanations of word recognition.

The first, phonological coding depends on the ciphering ability. Phonological coding holds that word identification is fulfilled by transforming

graphemic representations (letters) into a phonological representations (which is a coding of phonemes dependent on the word's combination of letters) that is then used to access word pronunciation and meaning (Hoover and Tunmer, 1993).

The second mechanism, *direct access,* suggests that word recognition is achieved via accessing meaning directly from the visual word form. Of these two, direct access is the only alternative that will permit reading non-alphabetic orthographies such as Kanji in the logographic system within Japanese. However, in alphabetic systems, either system is at least theoretically possible (Hoover and Tunmer, 1993).

1.7.2.2. Reading Fluency

Fluency is a critical component of skilled reading (National Reading Panel 2000, p. 32). According to Marice (2008) and Melby-Lervag et al. (2012), a key reason that fluency is considered as an essential part of reading is that fluency is associated with reading outcomes, including comprehension.

Hudson et al. (2009) refer to reading fluency as "reading accurately at a quick rate with appropriate prosody" (p.4). That is, fluent readers are able to identify words in text quickly with a minimal amount of attention. Duffy (2009) considers fluency as "the ability to orally and silently read text smoothly and with appropriate phrasing and intonation." In fact, this definition hides complex processes and skills needed to produce the seemingly effortless performance of a fluent reader**.**

According to Marice (2008), fluency consists of the following skills:

A. **Accuracy:** It refers to the ability to blend sounds together, decode words correctly, and understand the systematic and predictable relationships between written letters and spoken sounds. Besides, it refers to the ability to use other cues to the identity of words in text (Torgesen and Hudson, 2006).

B. Automaticity: It refers to the quick and accurate identification of individual words as well as speed and smoothness in reading connected text. It is achieved when effortful skills such as word decoding, become fast and effortless–making available cognitive resources for other skills, such as text comprehension. Automaticity is a requirement for building the next component of reading fluency – prosody – as the automatic decoding of words frees up attentional resources required for prosody (Torgesen and Hudson, 2006).

C. Prosody: It refers to naturalness of reading, or the ability to read with appropriate phrasing and expression. Put differently, it is the capacity of reading a text with suitable volume, stress, pitch and intonation. Prosody is an indicator that the reader is actively constructing the meaning of a passage as they read (Torgesen and Hudson, 2006).

In a nutshell, fluency is not speed reading. In speed reading, words are skipped and the reader skims and scans the material as quickly as possible. There is no concern with how it sounds. In contrast, fluent reading, whether oral or silent, is reading of the text with the proper phrasing and intonation. That is, the text is read smoothly and with meaning. When readers read with intonation and phrasing, they understand what the author was intending to convey, and say it the way the author intended that it be said. In this sense, fluency is not only a matter of knowing the words at sight; it is also a matter of comprehending the material accurately (Duffy, 2009). Fluency bridges comprehension and word recognition. This is because fluency requires both recognizing most of the words on the page at sight (the word recognition part) and proper phrasing and intonation that reflects the author's meaning (the comprehension part).

1.7.2.3. Reading Comprehension

Comprehension is quite necessary to fostering children reading skills (National Reading Panel, 2000). It is the process of extracting the information

from a text and combining it with the readers' predictions and prior knowledge (Grellet, 1981; Celce- Murcia, 2001). In other words, it is the ability to process a text, understand its meaning, and to integrate with what the reader already knows. In the same vein, Adams (1990) states that reading comprehension is the quick and effortless process of comprehending words. Besides, it depends on the notion that text is meant to be understood and thought about. It occurs when learners build up mental representations of a particular text. The comprehension processes take place at several levels across language units: word level, sentence level, and text level. Through these levels, the processes of word identification, referential mapping, and a variety of inference processes interact with the reader's knowledge to build a final meaning of the text (Perfetti and Stafura, 2014). In the same context, Duffy (2009) mentions a number of reading comprehension characteristics:

- Proactive, because a reader must be actively thinking and constantly monitoring the meaning.

- Tentative, because predictions made in one moment may change in the next moment.

- Personal, in that meaning exists in the reader's interpretation, which is controlled by his or her prior knowledge.

- Transactive, because the reader's background knowledge interacts with the writer's intent.

- Thoughtful, because readers must always analyze the clues the included in the text.

- Imagistic, because, in narrative text, readers use the writer's descriptive language to generate pictures in their minds of what is happening.

- Inferential, because the reader can only guess the writer's meaning since

the writer proceeds from one set of experiences and the reader from another.

- Reflective, in that good readers assess what they have read and determine its meaning and how it can be used after finishing reading.(pp. 18-19).

All in all, comprehension is the ultimate goal of reading. It is the act of extracting meaning from the text. Most importantly, Sawyer (1991) claims that reading comprehension appears to be a crucial factor in word-recognition competence. It requires some interactions between the text information and the reader's background knowledge. This knowledge includes learners' experiences in understanding words meanings, print concepts, graphic organizers, and text structures. For all these reasons, it seems relevant to account for the different models of word recognition, fluency, and comprehension.

Conclusion

This chapter revealed some information about the nature of reading. It described reading competence as a complex cognitive process of decoding symbols to derive meaning. It involves three main processing skills: word recognition, fluency, and comprehension. Word recognition or decoding refers to the ability to identify, read written words correctly and effortlessly. Fluency is the ability to read with speed, accuracy, and proper expression. It is an important skill to master as it creates a bridge to reading comprehension. The latter is the process of constructing meaning from text that is the ultimate goal of reading. Over and above that it outlined the different reading types. Extensive Reading involves learners reading texts for enjoyment and to develop general reading skills. In other words, learners learn to read by actually reading rather than examining texts by studying the vocabulary, grammar and phrases. However, intensive reading involves learners reading in detail with specific learning aims and tasks such as to answer reading comprehension questions or to identify how sentences are linked. Unlike extensive reading, the goal of intensive reading is not to read many texts for fluency, but rather to read a shorter piece of text to gain a deeper understanding of that text. Reading aloud is another type. Young people have a "listening level" that significantly surpasses their reading level. Thus, reading aloud seems to be the most appropriate way to engage learners in texts that they might not be able to read. It expands learners' imagination, provide new knowledge, support language acquisition, build vocabulary, and promote reading as an enjoyable activity. Further, the current chapter accounted for whole language and phonics approaches to teaching reading. The former refers to an emphasis on general comprehension and stress the functional nature of printed words. The latter refers to the method that instructs children how to listen carefully and identify the phonemes in words. It helps children to learn to read and spell words. This chapter stressed the importance of systematic phonics method that explicitly teaches children letter-sound correspondences prior to emphasizing the meanings of written words.

CHAPTER TWO: PHONOLOGICAL AWARENESS AND READING COMPETENCE

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Introduction

The first studies about phonological awareness started in Russia. Several Russian psychologists in the 1960s and the 1970s were studying preschool children lack of phonological awareness and its impact on learning to read (Nicholson, 1997). It was also during this period that the relationship between reading and linguistic awareness was scrutinized and the term "phonological awareness" was later on coined.

A great body of research has put much emphasis on the role of the different skills of phonological awareness on the acquisition and development of reading ability. Lengthwise studies have indicated that successful training in phonological awareness skills results in significant improvement in reading acquisition (e.g., Foy and Mann, 2003; Carroll et al., 2003; Bhat, Griffin and Sindelar; 2003; Smith, Walker and Yellin, 2004; Anthony and Francis, 2005). For instance, Dyck (1991) claimed that phonological awareness ability in kindergarten is a powerful predictor of reading success. It is more predictive of subsequent reading ability than IQ scores. It is then necessary to approach the concept of phonological awareness in order to understand its link with learning in general and with reading competence in particular.

This chapter discusses the various conceptualizations labeled to phonological awareness by different scholars. Withal, it clarifies the misuse of phonological awareness and other concepts such as phonemic awareness and phonics. It also considers how phonological awareness can be developed, it outlines the importance of phonological awareness, and it points out the main measures for assessing phonological awareness. Eventually, it focuses on the relationship between phonological awareness and reading competence.

By and large, this chapter shows the relevance of reading skill in foreign language acquisition. Most importantly, it unfolds the positive impact of phonological awareness on reading competence in general and L2 reading in

particular.

2.1. Definition of Phonological Awareness

Various definitions of phonological awareness have been presented, each with generally well-established hypothetical cornerstones and some scientific evidence. These definitions range from exceptionally exhaustive to profoundly comprehensive of various phonological awareness skills (Anthony and Francis, 2005).

The word "phonological" is derived from ancient Greek ("phone" means "voice"; "logos" means "word"). It refers to the ability to reflect on and manipulate the sound components of spoken words (Nicholson, 1997, p.53). Phonological awareness is defined as "the understanding of different ways that oral language can be divided into smaller components and manipulated. Manipulating sounds includes deleting, adding syllables or sounds. Being phonologically aware means having a general understanding at all these levels (Chard and Dickson, 1999, p.262). It also refers to as: "sensitivity to the sound structure of language. It demands the ability to turn one's attention to sounds in spoken language while temporarily shifting away from its meaning." (Yopp and Yopp, 2009, p.12). In other words, it is the general ability to attend to the sounds of language as distinct from its meaning. It is learners' understanding that speech is composed of words; words can be divided into syllables and onset-rimes; syllables and onset-rimes can be divided into individual sounds (phonemes) (Bayetto, 2014, p.1).

Simply stated, phonological awareness is the foundation upon which the other reading skills are built. When learners do not master phonological awareness, it can adversely affect their progress in the other essential reading components. It is a casual and predictive precursor of children's later ability to read (Storch and Whitehurst, 2002, p.934). Along with that, phonological awareness should be distinguished from other terms such as phonemic awareness

and phonics.

2.1.1. Some Concepts Related to Phonological Awareness

This section of the research will define the terminology associated with phonological awareness as it is used throughout the literature.

- **Alphabetic Principle:** It is the realization that speech sounds can be represented with symbols (i.e., letters) (Schuele and Boudreau, 2008, p.6). This means English words are composed of patterns of letters that represent the sounds of spoken English words (Chard and Osborn, 1999). For example, a child who knows that the written letter "m" makes the /mmm/ sound is demonstrating the alphabetic principle.

- **Graphemes:** A grapheme is a letter or group of letters representing one phoneme. Some examples of graphemes include "t, p" and "igh". Some graphemes represent more than one phoneme in English (compare "school" with "chip", the /ch/ is pronounced as /k/ in school and as /tʃ/ in chip), and some phonemes are represented by more than one grapheme (the /ɜ:/ is represented by [e], [i], and [u] in "her, bird" and "turn" respectively) (Rajkowski, 2015, p.03).

- **Phonology:** A branch of linguistics which studies the sound systems of languages (Crystal, 2008, p.365). Similarly, Anderson (2001) explains that "phonology deals with sound structure in individual languages: the way distinctions in sound are used to differentiate linguistic items, and the ways in which the sound structure of the 'same' element varies as a function of the other sounds in its context" (pp.11386-11392).

- **Phonemes:** A phoneme is the smallest unit of sound in our language that makes a difference in a word's meaning. For example, the word *cat* has three phonemes,

/k/- /a/- /t/. By changing the first phoneme, we can produce the word *bat*. Words in English (in fact, in all languages) are composed of strings of phonemes (Torgesen and Mathes 1998, p.2).

- **Syllable:** It is a unit of speech consisting of one uninterrupted vowel sound which may or may not be flanked by one or more consonants; uttered with a single impulse of the voice like: *man* (/mān/), going (/go/-/ing/), happiness (/hăp/-/e/-/nis/) (Yopp and Yopp, 2010, p.8). Figure.2.1 shows the simple hierarchical structure of the syllable of the word "man".
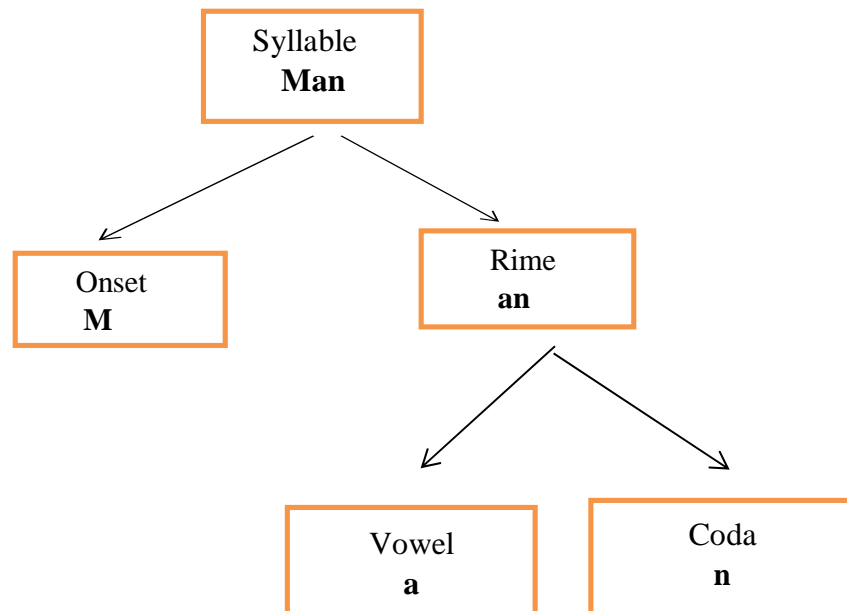
Figure. 2.1. A Simple Hierarchical Structure of the Syllable Using the Word "man" as an Example.

- **Onset:** It is the initial consonant or consonant blend of a word (i.e., */c/* in *car*, */bl/* in *black*) (Hackett, 2014, p.44). It consists of any consonant sounds that precede the vowel (*sit* (/s/) spit (/*sp*/)) (Adams, 1990, p.308).

- **Rime:** It is the portion of the syllable including the vowel and any consonants that follow. In the word *church*, the rime is *urch*. Not all syllables or words have onsets such as axe, ill, up, end, and oar, but they

all have a rime." (Wagstaff, 1994, pp.4- 5).

- **Phonics:** It is defined as the method of teaching reading that focuses on the relationship between sounds and the letters that represent them (Yopp and Yopp, 2010, p.11). There are two important things to remember about phonics. First and foremost, phonics is an instructional strategy – a method of teaching children to read. Second, phonics has to do with teaching the relationships between the sounds in speech and the letters of the alphabet (both written and spoken) (Wren, 2001, p.3).

- **Phonemic Awareness:** It is the most difficult aspect of phonological awareness. It refers to knowledge of words at the level of individual sounds— how to segment, blend, or manipulate individual sounds in words (Trehearne et al., 2003, p.118). Identifying the separate sounds is necessary for reading an alphabetic language like English (Konza, 2011, p.3).

- **Phonological Coding:** It is defined as the representation of information about the sound structure of verbal stimuli in memory. Phonological coding deficits are tightly linked to difficulties in acquiring early word reading skills (Torgesen et al., 1990, p. 236).

- **Phonological Memory:** It refers to coding information phonologically for temporary storage in working or short-term memory (August, and Shanahan, 2008, p.30). Coding is translating stimuli from one form to another. An example of coding is a child hearing a word (auditory modality) and then writing the word down (written modality). Coding of phonological information into working memory includes recalling series of digits and sentence repetition tasks. Retrieving phonological information from long-term memory can be tested by rapid naming tasks such as naming as many common animals as fast as you can. A deficit in phonological memory does not appear to impair either reading or listening

to a noticeable extent provided the words involved are already in the individual's vocabulary (Bauman-Waengler and Diane Garcia, 2018, p.259).

- **Phonological Processing:** It refers to the use of phonological information (i.e., the sounds of one's language) in processing written and oral language (Wagner and Torgesen, 1987, p.192). It is the ability to identify and manipulate individual sounds within the language—as well as the ability to identify letter strings and whole words orthographically, or by sight (Perfetti, 1984). This means that someone can hear the sounds of the words and convert them into letters on a page (spelling). He/she can also see letters on a page and convert them into something he/she can hear (reading).

- **Phonological Representation:** It is the knowledge about what a word sounds like (sufficient to recognize it when heard) and how to discriminate it from similar sounding words (Goldsworthy and Pieretti, 2012, p.2). Phonological representations can be described at the acoustic level, the linguistic level, or the cognitive level. At the acoustic level, the phonological representation for a word form is analyzed in terms of the raw signal, for example, in terms of pitch, loudness, and duration. At the linguistic level, the word form is described in terms of the vocal tract and the ways that it constrains the production of speech sounds, for example, the manner of production and the place of articulation. At the cognitive level, the phonological representation is described in terms of its assumed constituent elements, namely consonant phonemes and vowel phonemes (Goswami, 2012, p. 2625).

- **Rapid Naming:** It refers to the efficiency of retrieval of phonological information from long-term memory. It is usually assessed by tasks that require naming letters and numbers as rapidly as possible (Li, 2010, p.84). It may indicate that the connection between the orthographic code (letter)

and the phonological code (name) has become automatic (Berninger and Richards, 2002, p.224).

These definitions of terms will serve to understand subsequently stated concepts, theories, and studies.

2.1.2. The Difference between Phonological Awareness, Phonemic Awareness and Phonics

Many misconceptions about phonological awareness, phonemic awareness, and phonics continue to persist as these concepts have been widely used and, perhaps incorrectly, used interchangeably (Sensenbaugh, 1996; Chard and Dickson, 1999).

Phonological awareness is distinct from phonemic awareness. Yopp and Yopp (2009) mention that "phonemic awareness is one aspect (and the most difficult) of phonological awareness. It is the ability to attend to and manipulate phonemes, the smallest sounds in speech."(p.2). It follows that phonemic awareness is "a subtype of phonological awareness, the most advanced level of phonological awareness that the child can achieve, and it refers to the ability to recognize and consciously manipulate with speech at the level of phonemes, to detect the smallest units in the spoken words." (Grofčíková and Máčajová, 2017, p.48).This means phonological awareness encompasses a child's ability to recognize the many ways sounds function in words; phonemic awareness is only his/ her understanding of the smallest sound units in words. To wrap it all up, "phoneme awareness is a specific term that falls under the umbrella of phonological awareness" (Wren, 2001, p.5).

Figure.2.2 depicts that phonological awareness can be illustrated as an umbrella term that comprises four levels: word awareness, syllable awareness, onset rime awareness, and phoneme awareness. Phonemic awareness is an understanding of the sound structure of language at the phoneme level.

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Figure.2.2. Phonological Awareness as an Umbrella Term Comprising Four Levels (Adapted from Lane *et al.*, 2002, p.102)

Phonological awareness is also different from phonics. In this regard, Phillips et al., (2008) claims that "phonological awareness is a measurable capability that each child can possess in smaller or greater amounts, phonics is a method of reading instruction that focuses on the associations of letter sounds with printed letters or groups of letters." (p.3). That is to say, phonological awareness refers to oral language and phonics refers to print. Both of these skills are very important and tend to interact in reading competence, but they are distinct skills. Table.2.1 summarizes the main discrepancies between phonics and phonemic awareness.

Table.2.1. Key Differences between Phonics and Phonemic Awareness (Adapted from Kilpatrick 2016, p.15)

	Field of Origin	Domain	Skill Type	Role in Reading
Phonics	Education	Written Language	Academic	Sounding out new words
Phonemic Awareness	Linguistics/ Speech Pathology	Spoken Language	Mental/ Linguistic	Supports word storage and phonics

To sum up, understanding and differentiating between phonological awareness, phonics, and phonemic awareness is important in interpreting research studies examining phonological awareness. Besides, it is worthy to be aware of the different stages of phonological awareness development.

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2.2. Development of Phonological Awareness

Research offers some important understandings about how phonological awareness progresses. Phonological awareness develops along a continuum, with children's sensitivity to sounds progressing from larger units to smaller units (Phillips et al. 2008; Yopp and Yopp, 2010; Woldmo, 2018). The prescriptive developmental sequence of phonological awareness skill is from larger to smaller units of sound. Children learn how to manipulate these units with alternating skills requiring increasing complexity (Lane et al. 2002; Anthony et al. 2003; Justice and Pence, 2005). In other words, children typically first acquire rhyming and alliteration skills. Thus, they develop an awareness of sentences and syllables, after that onsets and rimes, and finally phonemes.

Sound recognition is an important skill that starts to develop before children begin formal education. Justice and Pence (2005) explain that "from birth, children begin to learn the sounds that constitute speech, and phonological awareness emerges sometime in the period between birth and kindergarten for most children" (p.40). Progressively, learners need to think about words not only as having meaning, but also as a collection of sounds (O'Connor, 2014). Children are required to think about the sound structure of speech rather than what a spoken utterance means (Yopp, 1992; Yopp and Yopp, 2010).

Woldmo (2018) states that "around the age of two, children start to show their earliest phonological awareness abilities when they demonstrate an appreciation for rhyming and alliteration." (p.3). Children first learn to detect and manipulate similar- and dissimilar- sounding words before they can detect or manipulate syllables, and individual phonemes are the most challenging parts of words for children to manipulate (Anthony and Francis, 2005).

By age 5, most children can identify rhyming words and complete sentences such as "the cat in the hat," or "mouse in a house." With support, children can make up sentences using alliteration, such as "busy bees buzz" or,

using their own names, "Freddie fights fires." Then, they become capable of recognizing and segmenting the separate words in a sentence. This skill is supported through some activities such as: counting words in a sentence, stomping for each word, clapping the words (Hougen, 2016, p.2).

Next, children are required to develop the awareness that words are made of syllables. Syllable awareness is the level at which a child is aware that words can be divided into syllables. It makes children capable of dividing syllables and recognizing their structure. A child, who has already acquired this skill, is aware of the fact that consonants which cannot be clustered together in English do not begin or end a syllable. For example, in the word "only", 'nl' is not a "legal cluster" as the word can only be divided as "on-ly" and not "o-nly" or "onl-y (Gillon, 2007, pp.4-5).

After that, children are expected to be capable of combining the initial consonant or consonant cluster (the onset) with the vowel and consonant sounds that come after it (the rime). Treiman and Zukowski (1996) deduce that onset rime awareness is an intermediary level between syllables awareness and phonemes awareness. They claim that tasks that require attention to the intra-syllabic units of onsets and rimes may be easier than tasks that require attention to single phonemes. Goswami and Bryant (1990) point out that onsets and rimes particularly have an immense significance in young children lives even before going to school. A child is phonologically aware of onsets and rimes when he/sheis capable of recognizing that two words like "cat" and "hat" have different initial sound but the same ending sound. He can also blend *mmm—an* together to form the spoken word *man* and separate the *r* from the rime *ipe* to say *rrr—ipe* (Yopp and Yopp, 2009, p.3).

The most complex level of phonological awareness is phonemic awareness, or the segmentation of the individual sounds in words. Phoneme awareness is peculiarly difficult because phonemes are co-articulated: That is, they overlap one another in speech (Liberman, et al., 1967; Liberman, et al.,

1974). Learners with phonemic awareness can identify the initial, final, and medial sounds in words and can segment and blend the sounds in words (Hougen, 2016). It should be clarified that at phonemic awareness level some phonemes are easier to attend than others. Smith, Simmons, and Kame'enui (1998) suggest that continuant sounds _ those produced with an incomplete closure of the vocal tract (Crystal, 2008, p.110) _ are easier to isolate, detect, and manipulate than stop sounds_those produced with a complete closure of the vocal tract (Crystal, 2008, p.110). For instance, */f/* in */fish/* can become */fffffish/* in contrast to */st/* in */star/* which is impossible to elongate and analyze because */t/* is stop sound.

It should be stated that blending (synthesis) tasks typically are easier to manage than are analysis tasks (Yopp 1988; Torgesen et al., 1992; Phillips et al., 2008, Yopp and Yopp, 2010). Thus, it is easier for a child to respond with the word */cat /* when presented with the sounds */c/ - /at/* or */c/-/a/-/t/,* than it is to supply *c-a-t* when asked to tell what sounds ou hear in */cat/* (Hempenstall, 2003).
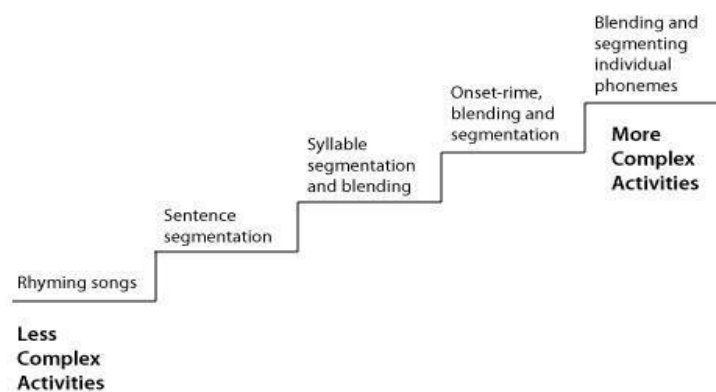
Figure: 2.3. Phonological Awareness Continuum (Chard and Dickson, 1999, p.262)

This figure summarizes the various levels of phonological awareness continuum. It shows that children's phonological awareness lies on a continuum of complexity. At the less perplexing end of the continuum are activities such as rhyming songs as well as sentence segmentation that demonstrates an awareness

that speech can be broken down into individual words. At the focal point of the continuum are activities associated to parsing words into syllables and blending syllables into words. Next are activities such as parsing words into onsets and rimes and blending onsets and rimes into words.

In conclusion, learning phonological awareness develops in a predictable progression. It is made up of a group of skills sequencing from easy to more difficult. First, children acquire the ability to recognize rhyming words. Next, they become capable of identifying the number of syllables in a word. After that, they can break words apart into syllables or onset-rimes. Later, they develop their phonemic awareness skill which enables them to break words into individual sounds. Moreover, it makes them capable of blending single sounds into words. As a result, the contribution of phonological awareness in enhancing reading and writing should be set forth.

2.3. The Importance of Phonological Awareness

The available experimental evidence demonstrates that phonological awareness is a crucial factor for literacy acquisition in the alphabetic system (Morais, 1991). Research has shown that preschool training in phonological awareness can have a facilitating effect on subsequent reading and spelling acquisition. Children who have been taught phonological awareness before beginning school are found to be better equipped for learning to read and spell than are children who have not (Lundberg, Frost, and Peterson, 1988; Phillips et al., 2008; Bentin, 1992; Bayetto, 2014). Moreover, phonological skills such as phonological processing have been proved to be an invaluable asset to experienced readers (Brennan and Ireson, 1997; Hindson et al., 2005; Goswami and Bryant, 1990; Adams, 1990).

Besides, Phillips et al. (2008) assumes that children with strong phonological awareness understand that there are systematic and predictable relationships between written letters and spoken sounds (alphabetic principle),

for instance: "ee" "ea" and "ei" spelling patterns all can signify the long /e/ vowel sound, as in n*ee*d, t*ea*m, and rec*ei*ve. In other words, "children become aware of the regular ways that letters represent sounds in words. Furthermore, they can generate possibilities for words in context that are only partially sounded out" (Torgesen and Mathes, 2002, pp.2-4).

Research has also revealed that there are clear and consistent relationships between meta-linguistic, in particular phonological, skills and learning to read both in the short- and long-term memory (Muter and Snowling 1998). In addition, Vandervelden and Siegel (1995) claimed that there is a strong relationship between phonological recoding skills and early reading fluency. Besides, MacLean, Bryant, and Bradley (1987) investigated the connection between three-year-old children's phonological skills and their knowledge of nursery rhyme. Particularly, they surveyed their ability to detect and produce rhyme and alliteration. A strong and highly specific relationship was found between knowledge of nursery rhymes and the development of phonological skills.

On a final note, the significance of phonological awareness is considerably enhanced by its well-established relationship with the acquisition of reading skills. Knobelauch (2008) clarifies that phonological awareness is essential since it is a basis for reading. Children with strong phonological awareness can utilize sound-letter information successfully in enhancing their reading and writing skills (Trehearne et al., 2003). Therefore, children with phonological awareness deficits may face word reading difficulties (Catts et al., 2005). As a further matter, researchers have suggested some key pedagogical implications to help beginning learners acquire phonological skills and to help teachers hold successful and efficient reading courses.

2.4. Teaching Phonological Awareness

The National Reading Panel (2000) reports that explicit phonological

awareness instruction is highly effective for developing phonological awareness in children, which in turn prepares them to read words and comprehend texts. In other words, it facilitates the subsequent acquisition of reading since it develops learners' ability to isolate sounds and then link those sounds to letters and thus become proficient readers. Effective approaches to teaching phonological awareness generally include activities that are age appropriate and highly engaging. Instruction for 4-year-olds involves rhyming activities, whereas kindergarten and first-grade instruction includes blending and segmenting of words into onset and rime, ultimately advancing to blending, segmenting, and deleting phonemes (Chard and Dickson, 1999). Therefore, teachers should also encourage learners to connect their knowledge of how to manipulate sounds in spoken language with their knowledge of letter-sound relations via using a variety of strategies such as:

- Sharing many nursery rhymes, rhyming books, alliterative texts, and songs and chants that play with words, for example, "Wibbaly, Wallalby, Woo," "Down by the Bay" (Yopp, 1995; Adams, 1990).

- Creating a print rich environment by doing such things as labeling classroom items, creating a classroom library, and displaying signs and photographs (Teale and Yokota, 2000).

- Drawing children's attention to print in the classroom and community—such things as labels, book titles, stop and exit signs (Adams and Osborn, 1990).

- Planning one-on-one conversations with children daily—during playtimes, mealtime, and quiet times (Dickinson and Tabors, 2001; Wells, 1985)—and "strive for five" by trying to give five turns for each speaker in the conversation (Dickinson, 2003).

- Developing listening skills by asking for children's attention (e.g., "Listen…") (McClelland et al., 2007).

- Pointing out rhyming words (e.g., "You said you have new shoes! Listen. 'New' and 'shoe.' They rhyme!") (Bradley and Bryant, 1983).

- Encouraging children to say the rhyming word at the end of a sentence (e.g., "Switcheroo, right foot, right… [shoe] !") (Gillon, 2008).

- Supporting attentional skills (e.g., "Jamal is showing us the tower he built. Let's watch him first, then you can show me . . .") (Neville et al., 2013).

- Introducing alphabet books and puzzles and talk about the letters, including how they are formed, their sounds, and their names when reading (Paratore, Cassano, and Schickedanz, 2011).

- Talking with older toddlers about the name of meaningful letters, such as the letters in their names, and their sounds (e.g., "Look! There is the letter L just like in your name, 'Lily.'") (Pierce and Profio, 2006).

There is ample evidence that phonological awareness training is beneficial for beginning readers (Lundberg et al., 1988; Lonigan et al., 1998; Torgesen and Mathes, 1998; Foy and Mann 2003; Carroll et al., 2003; Phillips et al., 2008). Lundberg, Frost and Petersen (1988) developed a training program consisting of meta-linguistic games and exercises with the aim of stimulating preschool children to discover and attend to the phonological structure of language. The children received no reading instruction prior to or during training. It was demonstrated that preschool training in phonological awareness can have a facilitating effect on subsequent reading and spelling acquisition.

Similarly, Torgesen and Mathes (1998) designed a manual to help teachers incorporate assessment and instruction of phonological awareness into their pre-reading and reading curriculum. They asserted that high quality instruction of phonological awareness accelerates the reading growth of children. In the same vein, Layes, Lalonde, and Rebai (2015) surveyed the effects of a phonological awareness training program on word reading and pseudo-word decoding in

dyslexic children reading the Arabic language in comparison to normal children. The findings revealed that the dyslexic children reading performance, phonological processing, and meta-linguistic-related skills became better in all post-tests. All this huge bulk of research proves the significance of phonological awareness instruction.

It is noticed that instruction in some phonological skills such as rhyming, onset awareness, and rime awareness is easier and may facilitate instruction (Treiman and Zukowski 1996). Nonetheless, integrated instruction in segmenting and blending seems to be more complex; however, it provides the greatest benefit to reading acquisition. Liberman et al. (1974) stated that phoneme segmentation is significantly more difficult for the young child than syllabic segmentation, and it develops later. Therefore, a greater level of intellectual maturity is necessary to achieve the ability to analyze words into phonemes than into syllables. Consequently, instruction in phonological awareness is quite crucial. It includes a variety of fun, engaging and age-appropriate activities that can improve reading competence.

According to Trehearne et al. (2003), instruction in phonological awareness activities are linked to classroom literacy experiences in a balanced literacy program. This program has a number of components such as:

- **Shared and Reading- Aloud:** Instructors can choose books, poems, or songs to read- aloud for a variety of purposes, including attention to phonological awareness (sound of language). This can provide a focus on the rhythm of language, rhyme, and syllable awareness.

- **Independent Reading:** Teachers can encourage learners to read some short stories, poems, texts of their own choice. Then, they can assess their phonological awareness skills via asking a number of questions.

- **Shared Writing**: The teacher and learners work together to write a message or story. Teachers can use rhyme analogy to spell a word (e.g., *I*

know how to spell cat, *so how would I spell* fat?). They can also ask learners to draw a line for each syllable on the white board.

- **Interactive Writing:** Teacher and learners jointly compose and write, or "share the pen." The teachers can remind learners to think of how many syllables are in the word and writing a sound for each syllable. They can also help learners use matching and isolating sounds to help spell a word (e.g., man *starts with the same sound as* Marcus. *What sound does* man *start with?*).

- **Independent Writing** It is very important to support learners' use of invented spelling in schools because the exploration of language through this process is integral to developing sound-by-sound segmenting and awareness of how sound patterns work in English.

- **Language Activities:** These activities include games, songs, poems, and wordplay activities that promote awareness of words syllables, rhymes, and sounds in words.

Chard and Osborne (1999) suggest a number of principles to improve learners' phonological awareness:

- Teachers should carefully model each activity according to engaging and age appropriateness.

- Teachers should move from larger units (words, onset-rime) to smaller units (individual phonemes). And thus, they should move from easier tasks (e.g. rhyming) to more complex tasks (e.g. blending and segmenting).

- Teachers should start teaching children continuous phonemes such as /s/, /m/ and /f/ that are easier to pronounce than stop phonemes such as /p/ /b/ and /k/.

- Teachers should use additional strategies (e.g. blocks) to help readers manipulate sounds. For example, the teacher addresses his learners saying: When you say ***bus*** I can't hear the last sound. Bus has three sounds ***b..u..s..*** (segmenting the word and placing out three wooden blocks to represent the three sounds). Try saying ***bus*** with three sounds… ***bus*** (touching each block to correspond with each sound in the word).

In a nutshell, research suggests that by the end of kindergarten, children should be able to demonstrate phonemic blending and segmentation and to make progress in using sounds to spell simple words. Achieving these goals requires that teachers be knowledgeable about effective instructional approaches to teaching phonological awareness and be aware of the ongoing progress for each of their learners. On top of that, it is necessary for teachers to use appropriate measures for assessing phonological awareness in reading acquisition.

2.5. Assessing Phonological Awareness

Phonological awareness can be described in terms of word awareness, syllable awareness, onset-rime awareness, and phoneme awareness. To develop phonological awareness, learners must demonstrate understanding of spoken words, syllables, and sounds (phonemes) (Lane et al., 2002; Trehearne et al., 2003; Gillon, 2007; Phillips et al., 2008 ; Yopp and Yopp, 2009; Mohammed, 2014). Assessment in phonological awareness serves two main purposes: identifying learners at risk for difficulty in acquiring reading skills and evaluating the progress of learners who are receiving instruction in phonological awareness (Chard and Dickson, 1999). It should be also stated that the following assessment activities can be applied to both natives and non-natives learning English.

2.5.1. Word Awareness Level

According to Tunmer and Rohl (1991), word awareness refers to the ability to perform mental operations on the output of the lexical access mechanism (p.3).

Phillips et al. (2008) assert that word awareness refers to the ability of a child to manipulate words in phrases and within compound words such as the word "hotdog" which is derived from the word "hot" and the word "dog" (p.5). When a child utters a single word that he has only heard in combination with other words, he is demonstrating the word level of phonological awareness (Lane et al., 2002, p.102). Trehearne et al., (2003) posit that "understanding the concept of a word develops from learners' exposure to print and classroom activities that help them to recognize how words—especially the function words that are more abstract—exist as separate entities." (p.123), and so "the tasks that are achieved on the level of word awareness are: (1) word identification and (2) word segmentation" (Mohammed, 2014, pp.102-103). A child can be assessed with activities that involve removing one word from a compound word. For example, the word "ball" can be removed from the compound word "baseball" to form the word "base" (Phillips et al., 2008, p.5).

2.5.2. Syllable Awareness Level

The ability to discern syllables (that the word *friend* has one syllable, *cubby* has two, *tricycle* has three, and so on) occurs early in the developmental progression of phonological awareness (Yopp and Yopp, 2009, p.13). Trehearne et al., (2003) add that "most learners have some sense of "syllableness," even if they do not know what a syllable is. They can recognize how many beats or syllables there are in a word. This is the easiest level of segmenting word parts." (p. 123).

Gillon (2007) suggests a variety of measures to evaluate children's awareness of the syllable structure of words include the following:

- Syllable segmentation--for example, "How many syllables (or parts) in the word coffee?"

- Syllable completion--for example, "Here is a picture of a *rabbit*. I'll say the first part of the word. Can you finish the word *ra…*　　?"

- Syllable identity--for example, "Which part of **compete** and **compare** sound the same?"

- Syllable deletion--for example, "Say **finish**, now, say it again without the **fin**" (p.6).

2.5.3. Onset-Rime Awareness Level

Children's awareness that syllables and words can be divided up into units that are larger than the single phoneme-units- but smaller than the syllable (intra-syllabic units or onset-rime units) is often referred to as onset-rime awareness (Goswami and Bryant, 1990, p.3). The onset is made up of the parts of the syllable that come before the vowel; the rime is the vowel and all subsequent consonants. All syllables have a rime, but not all have an onset such as ear, out, and eel (see rime definition in concepts related to phonological awareness (p.5)). For example, the word "**mat**", the **m** is the onset of the syllable, and **at** is the rime of the syllable (Konza, 2011, p.2). Gillon (2007) proposes some measures to assess onset-rime awareness which include:

- Spoken rhyme recognition-for example, "Do these words rhyme: **shell, bell**?"

- Spoken rhyme detection or rhyme oddity task-for example, "Which word does not rhyme: **fish, dish, book?**"

- Spoken rhyme generation--for example, "Tell me words that rhyme with **bell**"

- Onset-rime blending_ for example, "combine the consonant cluster (the onset: /sh/) with the vowel and consonant sounds (the rime: /irt/) (p.6).

2.5.4. Phoneme (or Phonemic Awareness) Level

Phonemic awareness is but a small aspect of phonological awareness,

which itself is part of a bigger notion called meta-linguistic awareness. Phonemic awareness is more specific: the ability to detect each phoneme (the smallest unit of speech) in words (Chapman, 2003, p.92). Ball and Blachman (1991) refer to the ability to recognize that a spoken word consists of a sequence of individual sounds. Fitzpatrick (1997) define it as the ability to examine language independent of meaning. It enables children to attend and manipulate component sounds. Lane et al. (2002) notice that phoneme awareness is the most sophisticated level of phonological awareness. Children with strong phonemic awareness are able to manipulate individual phonemes, the smallest sound units of spoken language. It involves knowing that the spoken word *light* consists of three sounds (*l-igh- t*) and the spoken word *black* consists of four (*b-l-a-ck*) (Yopp and Yopp, 2009, p.3).

According to (Stanovich, 1993; Adams, 1990; National Reading Panel, 2000; Knobelauch, 2008; Lorenson, 2014), there are a number of tasks used to evaluate phonemic awareness:

- Phoneme isolation, which requires recognizing individual sounds in words, for example, "Tell me the first sound in *paste*." *(/p/)*(National Reading Panel, 2000, pp.2-2).

- Phoneme identity/matching, which requires recognizing the common sound in different words. For example, "*Do **pen** and **pipe** begin with same sound*?" *(/p/)*)(National Reading Panel, 2000, pp.2-2; Stanovich, 1993, p.283).

- Phoneme categorization/Phoneme oddity, which requires recognizing the word with the odd sound in a sequence of three or four words, for example, "Which word does not belong*? **Pig, hill, pin." (hill)** (National Reading Panel, 2000, pp.2- 2; Lorenson, 2014, p.27).

- Phoneme blending, which requires listening to a sequence of separately spoken sounds and combining them to form a recognizable word. For

example, "***put these sounds /D/-/o/-/o/-/r/ together to make a word. (door)***(National Reading Panel, 2000, pp. 2-2; Knobelauch, 2008, p.172).

- Phoneme segmentation, which requires breaking a word into its sounds by tapping out or counting the sounds or by pronouncing and positioning a marker for each sound. For example, "How many phonemes are there in **ship**?" *(three: /š/ /I/ /p/)* , or a child should tap three times for the word **mat**, once for each of the phonemes **/m /,/a/,**and**/t/** (National Reading Panel, 2000, pp.2-2; Adams, 1990, p.40).

- Phoneme deletion, which requires recognizing what word remains when a specified phoneme is removed. For example, "What is **meat** without the **/m/**?" (**eat**) (National Reading Panel, 2000, pp.2-2; Stanovich, 1993, p.283).

In short, it is quite important to evaluate phonological awareness via using a compilation of tasks like isolation, segmentation, blending, deletion, and completion. Both instructors and learners should be aware of the factors which influence assessment of phonological awareness. In this regard, Bayetto (2014) state a number of factors which may influence assessment of phonological awareness like:

- Compromised hearing ability will significantly affect learners' capacities to develop phonological awareness as it is primarily developed through listening (receptive language).

- Auditory processing and auditory memory: being able to hear, manipulate, and 'hold' individual sounds in words.

- Articulation: Learners' correct pronunciation of words so that sounds can be accurately named.

- Teachers' clear, consistent, and unexaggerated articulation of sounds.

- Learners understanding the language of instruction for example, what teachers mean when they ask for the identification of the first, second, next, and last sound in a word.

- Frequent and regular 10-15 minute whole-class and small group sessions that are active and interactive suggest that practice activities could be as brief as a few minutes each.

- Learning with their teacher and their peers: "…activities are auditory and interactive in nature (emphasis added), children do not develop phonological skills by doing independent work".

- Understanding that the development of phonological awareness is not linear in nature, so teachers may simultaneously teach more than one of the skills. Learners do not need full mastery of one skill before moving onto another.

- Teaching too many skills in one session can be overwhelming for the novice learners since it increases the memory demands for the child. Thus, teachers should limit the focus of each phonological session to a single skill. This could reduce the complexity of introducing numerous skills (p.2).

2.6. The Place of Phonological Awareness in Literacy Development

Literacy is a crucial foundation that enables young people and adults to engage in learning. It usually refers to "a set of skills and practices comprising reading, writing and using numbers as mediated by written materials" (English, 2013, p.17). However, Frankel et al., (2016) define literacy as the process of using reading, writing, and oral language to extract, construct, integrate, and critique meaning through interaction and involvement with multimodal texts in the context of socially situated practices. This definition emphasizes four key shifts in understandings of literacy. First, literacy involves productive (e.g.,

writing, speaking) as well as receptive (e.g., reading, listening) processes that are more alike than different. In fact, definitions of literacy have various dimensions. In this respect, Lo Bianco and Freebody (1997) say that

Literacy refers to a set of varied capabilities or to a single capability that can be quantified (e.g., into "level of ability") in a straightforward and comprehensive way; whether or not literacy refers to capabilities distinct from other language-related activities; and the extent to which acquisition of certain basic literacy capabilities is an insurance against all possible literacy problems. (p. 20)

Nonetheless, it is widely accepted that literacy generally is simply defined as "the ability to read and write" (Hornby et al, 1995, p.687). Phonological awareness, on the other hand, is a critical early competency for both reading and spelling. A great body of research has shown the effective role of phonological awareness in literacy development (e.g., Wagner and Torgesen, 1987; Chard and Dickson, 1999; Justice and Pence 2005; Phillips et al., 2008; Hougen, 2016). In this context, Anthony and Francis (2005) observed that phonological awareness plays an important role in literacy acquisition. They concluded that phonological awareness training, especially when combined with instruction in letter knowledge, leads to longstanding improvements in phoneme awareness, reading, and spelling. Similarly, Weinrich and Fay (2007) reported that phonological awareness has been identified as an important component in children's literacy development. The various levels of phonological awareness (i.e., rhyming, sequencing, separating, and manipulating sounds) all contribute to reading and spelling. Therefore, the relationship between phonological awareness, spelling, vocabulary, and reading should be brought to light.

2.6.1. Phonological Awareness and Spelling

Numerous studies have proved the positive influence that phonological awareness skills have on EFL reading and spelling. For example, Cataldo and Ellis (1988) assessed early interactive processes of development in reading, spelling, implicit and explicit phonological awareness in a group of children at four time points as they progressed through their first three years in school. The results provided evidence that children move from an implicit appreciation to an explicit understanding of the sound structure of words. They also revealed that the growth of phonological awareness follows a developmental continuum and that different levels of phonological awareness play specific roles in the acquisition of reading and spelling skills. In the same direction, Carro (1999) conducted a study to evaluate the effect of increased phonemic awareness instruction on the writing ability of at risk first graders in Central New Jersey. Twelve at risk learners were divided into two groups, each of which received one half hour of daily supplemental reading instruction which included phonemic awareness activities such as letter recognition, letter/sound correspondences, rhyme, segmentation, and word families. The eleven control children received reading instruction solely from the classroom teacher who used a basal reading program. The experimental sample demonstrated the greatest increases in the posttest results after increased phonemic awareness instruction, even though the control group had overall higher scores. Children who are low in phonemic awareness require explicit training in becoming aware of the internal structure of sounds in words which develops their ability to spell words phonetically. As the learners become more aware of phonemes and their written form, they become more confident about their writing ability.

Along similar lines, Truxler and O'keefe (2007) searched the effects of phonological awareness instruction on beginning word recognition and spelling. The investigation involved four children, aged 8–9 years, with complex communication needs (CCN) who used augmentative and alternative

communication (AAC). The results showed that making associations between orthographic patterns and phonological forms is essential for independent word recognition and spelling. Most importantly, the findings suggested that early acquisition of phonological awareness skills allows children to attain successful decoding and spelling skills. Likewise, Baezzat et al. (2018) investigated the effects of training phonological awareness skills on the improvement of auditory memory in learners with spelling problems in third grade at primary schools in Sari City, Iran. The research method used in the study was quasi-experimental with pre-tests, post-tests, and a control group. The statistical population consisted of all the learners from third grade at primary schools in Sari. The study sample was chosen based on purposive sampling and random sampling methods. These learners were then randomly assigned to two groups: experimental and control groups. The experimental group received phonological awareness skills training in 13 sessions but the control group did not receive any intervention. The results indicated that there was a significant difference between the experimental and the control group's scores, indicating that phonological awareness training improved the auditory memory of learners with spelling problems.

2.6.2. Phonological Awareness and Vocabulary

A great body of research has shown the correlation of phonological skills and vocabulary. Baciu (2010) scrutinized the effects of a training program that comprises vocabulary and phonological awareness skills on 3- to 4-year-old children. The results revealed that children who participated in the training program obtained significant increases on the standardized measure of vocabulary when compared to the controls. Additionally, they had significantly higher scores than the control group of children in labeling sounds of letters, and increased scores on word reading, rhyme and initial phoneme detection, syllable and final phoneme deletion and knowledge of critical vocabulary items. Therefore, the study demonstrated that positive, significant changes in pre-literacy occur when children are trained at an early age on relevant prerequisite

phonological skills.

In the same vein, Lund, Werfel, and Schuele (2014) compared the phonological awareness skills and vocabulary performance of English monolingual and Spanish–English bilingual children with and without hearing loss. The participants were ($n = 18$) preschool children with varying degrees of hearing loss and ($n = 19$) preschool children without hearing loss who completed measures of phonological awareness and receptive and expressive vocabulary knowledge. The results indicated that children with hearing loss may develop phonological awareness differently than children with normal hearing and that language and educational experience are critical to understanding the phonological awareness performance in children with hearing loss.

Moreover, Lund (2020) evaluated the relation between lexical knowledge and phonological awareness performance of children with cochlear implants. Thirty children with cochlear implants (aged 5–7 years), 30 children with normal hearing matched for age, and 30 children with normal hearing matched for vocabulary size participated in the study. Children completed a vocabulary knowledge measure and three phonological awareness tasks with words that had high and low neighborhood density. Children with cochlear implants performed more poorly than their age-matched peers and similarly to their vocabulary-matched peers on phonological awareness tasks. When performance was analyzed according to the neighborhood density of the target word, children with cochlear implants and age- matched children performed better with high-density words. Across all groups, vocabulary size correlated significantly with phonological awareness performance. Children with cochlear implants demonstrate delays in both vocabulary knowledge and phonological awareness performance, but children with cochlear implants appear to take advantage of lexical information similarly to their age-matched peers. Consequently, the importance of phonological awareness should be unfolded along with the pedagogical implications for teaching phonological awareness.

2.7. Phonological Awareness and Other Learning Skills

Researchers have recently tried to examine the relationship between phonological awareness and listening comprehension, attempting to link phonological awareness not only to written but also to spoken language. Caravolas and Bruck (1993) scrutinized the influence of oral and written language input on the development of phonological awareness in 4-, 5-, and 6-year-old children. The abilities of Czech and English speakers were contrasted because these two languages differ considerably both with respect to syllable structure (oral language) and in orthographic depth (written language); Czech contains a greater variety and frequency of complex syllabic onsets than English. Also, the Czech orthography is transparent (each grapheme corresponds to a phoneme) whereas English orthography is opaque (each grapheme can correspond more than one phoneme). It was hypothesized that if language input affects children's phonological awareness development, Czech children should show higher levels of awareness for complex onsets prior to formal schooling. The Czech first graders should show greater improvement in phonological awareness skills than their Anglophone peers, as well as better spelling skills after formal exposure to literacy. The results revealed that Czech children do possess higher levels of awareness of complex onsets than English-Canadian children and that they have more advanced spelling skills by the end of grade one. However, the English children showed better awareness of simple onsets than the Czech children on one oral task. Together, these results suggested that the early development of phonological awareness is shaped to some extent by aspects of the phonological input and that the nature of the orthography additionally impacts on the rate and pattern of development of phonological awareness and literacy skills.

Equally, Cheung (2007) argued that phonological awareness, reading, and spoken language are inter-correlated because phonological awareness mediates between the processing of written and spoken language, so far as the derivation

of phonological information from print and speech is concerned. For meaning activation, phonological awareness may not have a role to play in linking reading to spoken language. In native and non-native adult speakers of English, the findings demonstrated a correlation between processing speech for meaning (i.e., listening comprehension) and reading comprehension, but not reading aloud. Moreover, they indicated a correlation between processing speech for phonological information (i.e., auditory phonological priming and phoneme discrimination) and reading aloud, but not reading comprehension. Most importantly, they showed that phonological awareness mediated between phonological priming/phoneme discrimination and reading aloud, but did not play a corresponding role in the relation between listening comprehension and reading comprehension. The implication is that phonological awareness binds reading and listening to speech only at the level of deriving a phonological code.

Correspondingly, Li, Cheng, and Kirby (2012) investigated the relationship between English listening comprehension and English and Chinese phonological awareness, and the cross-linguistic transfer of phonological awareness in 48 Grade 2 and 47 Grade 4 Chinese English-immersion learners. The results of the study indicated a correlation between English phonological awareness and English listening comprehension. English listening comprehension had a significant effect on English phonological awareness in both grades; this effect is evident after considering Chinese phonological awareness, but only in Grade 4. A similar pattern is found for the effect of English phonological awareness on English listening comprehension. Only weak evidence exists pertaining to a connection between cross-linguistic transfer from Chinese phonological awareness (L1) to English listening comprehension (L2).

Likewise, Souza (2017) examined to what extent L1 Brazilian Portuguese (BP) EFL learners are aware of L2 phonotactics and whether there would be a relationship between L2 phonotactic awareness and L2 pronunciation accuracy. The results showed that L1 BP participants showed a high awareness concerning

L2 phonotactics, not differing from L1 English speakers. Furthermore, high phonotactic awareness was found to be related to higher accuracy in L2 pronunciation. The results, thus, suggest that phonotactics should be taught in foreign language classrooms since increasing learners' awareness might be beneficial for the accuracy of their L2 pronunciation. Correspondingly, Cheung (1995) examined the role of phonological awareness in predicting L2 pronunciation accuracy. The findings indicated a positive relationship between English phoneme deletion skill, a measure of the theoretical construct phonological awareness, and pronunciation accuracy, the ability to read aloud correctly familiar English words.

In similar fashion, Hagtvet (2003) studied the relationship between decoding and comprehension in the oral and written modalities. Performances on two types of comprehension tasks (story retelling and cloze tasks) were compared and related to phonological, syntactic and semantic abilities. A two-way analysis of variance using IQ as covariate showed that poor decoders scored lower than average and good decoders on all comprehension tasks. This suggests a high degree of interdependence between listening comprehension, reading comprehension and decoding. The associated pattern of oral correlates furthermore varied with task demands and to some extent, independent of modality. Vocabulary was related to the ability to retell a story. Syntax and, in particular phonemic awareness, were on the other hand more strongly related to the ability to draw anaphoric reference. The results were interpreted in favor of "the phonological deficit hypothesis", but the interaction between linguistic sub-skills and task demands was also underscored.

In brief, the above studies examined the interrelationships among phonological awareness, vocabulary, speaking and listening comprehension. They emphasized the importance of phonological awareness in enhancing EFL learners' vocabulary, speaking and listening skills. That is why, it is necessary to shed light on the relationship between phonological awareness and reading

competence.

2.8. Phonological Awareness and Reading Competence

A substantial amount of literature suggests a strong correlation between phonological awareness and reading skills. Besides, longitudinal studies have shown that children with poor phonological awareness skills have difficulties in reading (Taylor, 1996). The research also shows that training in phonological awareness during or before reading instruction has positive advantages in subsequent reading acquisition (Olofsson and Lundberg, 1985; Lundberg, Frost, and Petersen, 1988; Tunmer et al., 1988). In this regard, Gough and Hillinger (1980) proclaimed that meta-phonological awareness is an essential ingredient in reading acquisition. Correspondingly, Jorm and Share (1983) postulated that phonological decoding skills are necessary to reading acquisition because they act as self- teaching mechanisms which allow children to recognize words visually. In addition, phonological awareness has been found to be the most potent predictor that contributes in early reading success in many orthographic languages (Stanovich, 1986, Goswami, 1999, McCardle, Scarborough, and Catts, 2001).

Later investigations have examined the relationship between phonological awareness and reading deficits. Scarborough (1990) examined the improvement of 'literacy skills' in dyslexic toddlers from 30 months to 8 years old. Two groups of children were enlisted by whether or not they demonstrated family incidence of reading disability, operationalized as having a parent or older brother/sister with poor reading abilities regardless of sufficient IQ. Scarborough found that children who were in this manner recognized as reading disabled indicated early troubles with 'syntactic performance' and delivered more 'speech errors' at 30 months of age than their at-risk yet non-dyslexic companions. By the third year of life, they had likewise fallen behind in vocabulary development. By 5 years old, these children indicated shortfalls in phonological awareness and picture naming abilities comparative with both at-risk, non-dyslexic group and

the control group.

Snowling, Gallagher, and Frith (2003) collected data at about 56 children born to dyslexic families aged between 9 months to 8 years. This permitted reflective comparisons of early profiles for three groups: at-risk children who fundamentally achieved reading skill in the normal range, at-risk children basically identified as impaired readers, and a control group. Those comparisons demonstrated that the high- risk unimpaired children still showed real deficits in verbal memory and phonological awareness relative to the control group. From their findings, they argued that the family risk of dyslexia is continuous rather than being a categorically distinct syndrome.

It should be pointed out that phonological awareness is basic for learning to read any alphabetic orthography (Troia, 2004). There is a well-established body of evidence that shows the significance of phonological skills to reading (Goswami and Bryant, 1990; Adams, 1990; Bentin, 1992; Vandervelden and Siegel, 1995; Muter and Snowling 1998). A child's phonological awareness is a powerful predictor of his\her reading success. Children who cannot distinguish and manipulate the sounds within spoken words have difficulty recognizing and learning the necessary print-sound relationship that is critical to proficient reading success. If a child has poor phonological awareness, it is difficult for them to discover the necessary link between print and sound. As a result, the impact of phonological awareness on EFL reading competence should be clarified.

Given all this, beginning readers should foster their phonological awareness skills and gain explicit knowledge of grapheme-phoneme correspondences in order to be capable of decoding words that either start with consonant clusters or do not share common rime spelling patterns (e.g., severe, joint, cliff) (Tunmer and Rohl,1991). Therefore, the connection between phonological awareness and reading competence components and their models should be discussed in detail.

2.8.1. Phonological Awareness and Word Recognition

Decoding incorporates word identification procedures that convert printed words into spoken words, and distinguishing discrete words in orthographic text. In this way, decoding implies processes that interpret written forms into sound-based forms, to land at the meaning of words in the lexicon in long-term memory, or, in straightforward words, the change of visual code into speech code (Gough and Tunmer, 1986; Catts and Kamhi, 2005). Word recognition is the level of the reading competence that has been the dominating focal point of research during the most recent couple of decades. Its significance to investigations of reading improvement and reading deficits is essential, in that depictions of ineffectively performing readers ordinarily stress their failure to recognize and articulate printed words correctly (Gillon, 2007). Put differently, children who lack the ability to recognize words automatically have reading comprehension problems (Perfetti, 1985). Models of word recognition range from the fundamental to the profoundly refined. They frequently portray an incorporated and collaborating system of specific constituents, all of which are conducive to the mind making meaning from a text. A model is never ideal, yet it should be viewed as speculative and open to changes.

2.8.1.1. Dual-Route Model

The dual-route theory was first described in the early 1970s. It mentions that there are two routes to convert print to speech: a phonological (non-lexical) route and a visual (lexical) route (Morton and Patterson, 1980; Coltheart, 1978, 1980, 1993; Coltheart and Rastle, 1994). Following the phonological (non-lexical) route, readers can access the "assembled phonology" by utilizing grapheme-phoneme correspondence skills to decipher orthographic segments straightforwardly into phonological segments and then assembling these phonological segments into a speech program (Cook and Bassetti, 2005). The first skill is called 'graphemic parsing'. It is responsible for converting a letter string into a grapheme (e.g., *ch*, two letters are parsed to one phoneme, */tʃ/)*. The

second skill is known as 'grapheme-phoneme conversion'. It works to access the phonology of the word (e.g., to access the word cat, the graphemes **c, a,** and **t** are translated into the phonemes **/k/, /æ/, /t/**). This includes the sub-mechanisms that maintain the phonemic codes in working memory and gather the phonemes into a complete phonological representation, in order to get the word's meaning. Putting it simply, the phonological route involves 'decoding the word' or 'sounding out the word' to access its meaning (Coltheart, 1978, 1980, 1993; Joubert and Lecours, 2000; Gillon, 2007).

It should be clarified that phonological awareness would be fundamental just when getting to words through the non-lexical route (phonological route). Readers' ability to parse words into smaller units can help them in comprehending how letters/graphemes map sounds/phonemes. For example, when attempting to read unfamiliar words or pseudo-words (Cestnick and Coltheart, 1999) a reader can depend on a progression of phonological processing skills: e.g., knowledge that the word can be broken into syllables (syllable awareness), knowledge that syllables are made out of single phonemes (phoneme awareness), and phoneme segmenting and blending skills. All these skills enable the reader to decode the word (Gillon, 2007).

In some orthographic systems, there is a deliberate grapheme-phoneme correspondence. Alphabetic languages, such as Spanish, German, and Italian, are good instances of this type. The English orthography, however, is not very consistent at the grapheme-phoneme level, and is commonly viewed as less transparent than other alphabetic scripts (Paulesu et al., 2000). As an illustration, the phoneme /**k**/ can map to various graphemes, such as **c** as in **coffee, cc** as in **occur**, or **ck** as in **pick**. On the other hand, the grapheme **c** represents the phoneme /**k**/ in **code** and the phoneme /**s**/ in **cinema**. Coltheart (1978) asserts that irregular spelt English words that do not comply with regular grapheme-phoneme rule cannot be approached via the phonological route. Coltheart et al. (1993) posits that the non-lexical route delivers incorrect translations of irregular words

such as *pint* or *colonel*. As an outcome, a lexical route must be used to access the meaning of such words.

Skilled readers are believed to have an adequate ability to choose either phonological or visual routes. The phonological route is thought to be the most important route when reading unfamiliar or low-frequency words. When words become familiar through practice, they can be processed straightforwardly by sight (i.e., the visual course). Apparently, phonological awareness would be vital just when using a phonological route to get to the word's meaning (Gillon, 2007).

Figure.2.4 illustrates the direct link from the printed word on the page to an orthographic representation in memory.
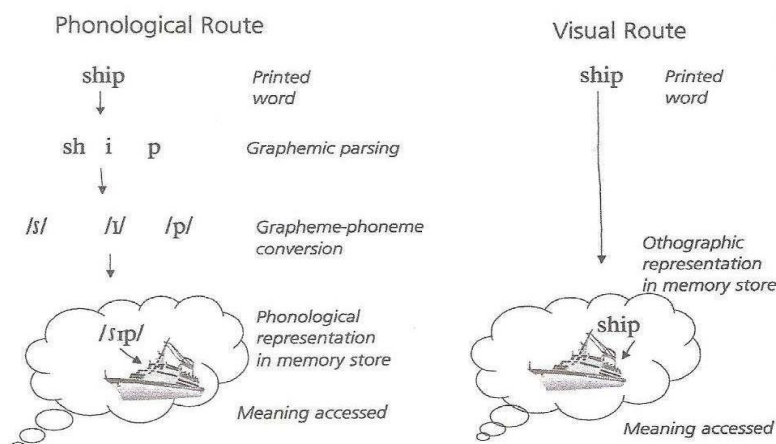
Figure.2.4. Dual-Route Theory of Word Recognition (Illustrated by Gillon, 2007, p. 16).

Readers can access the "addressed phonology" by an immediate enactment from orthographic input lexicon to phonological output lexicon or in the way the pronunciation of the word is retrieved from its location (address) in the internal lexicon. To be progressively explicit, the sequence of letters is perceived as a whole, and afterward researched upward in the mental lexicon before the pronunciation of the entire unit is at long last recovered. For example, the word **yacht** is perceived as a whole and afterward checked in the mental

lexicon so as to get to its articulation**//jot /**and its meaning **'boat'** (Cook and Bassetti, 2005).

In brief, individuals' ability to recognize that a specific combination of letters represents a specific word by visual route learning empowers them to access that word's meaning (Grainger and Ziegler, 2011; Pritchard, Coltheart, Palethorpe, and Castles, 2012). This is the thing that typically appears in 'whole-word reading methods', and the teaching practice of reading flashcards: a child is showed a word on a card, and the instructor pronounces the word. By observing and hearing the word at the same time, the child can discover that the visual shape of the letters on the card is appended to a particular word with no comprehension of the word's sound structure (Beck and Juel, 1995).

However, a number of researchers have criticized the standard dual-route model of word recognition. Humphreys and Evett (1985) endeavored to survey the validity the dual-route theory. They proposed that much data repudiate the theory; hence, alternative approaches, which stress different components of word processing, have been delineated. Barron (1986) suggested two explanations for the failure of the dual-route model to provide a satisfactory account of early word recognition development. First, the orthographic units represented in early lexicons are not properly defined. Furthermore, the autonomy of the two routes prohibits the acquisition of lexical information through the use of grapheme-to-phoneme rules. Ehri (1991) strongly criticized the dual-route theory for failing to include phonological processing in the lexical route to irregular word recognition such as: *sword***.** He commented that only the '**w'** does not follow standard sound-spelling correspondences in the word *sword*, and knowing the grapheme-phoneme relationships for '*s'* or '*d'* might make this word recognition easier. Alternate models have been proposed for better accounting to word recognition.

2.8.1.2. Analogy Model

Theories of reading analogy (Marsh, Desberg, and Cooper, 1977;

CHAPTER TWO: PHONOLOGICAL AWARENESS
AND READING COMPETENCE

Glushko, 1979; Wolff, Desberg, and Marsh, 1985; Goswami, 1991; Goswami and Bryant, 1992; Goswami, 1998) suggest that familiar and unfamiliar words are recognized by analogies. These analogies could be either in spelling or in pronunciation (Marsh, Desberg, and Cooper, 1977). Knowing different words that have the same spelling and pronunciation can help the reader form associations with irregular/unknown words. For instance, the reader may perceive the word **hat** as a result of its spelling and phonological similitudes to known words, for example, **cat** or **tap**. Recognizing words along these lines has been characterized as 'reading by analogy'. According to Glushko (1979), readers access the stored pronunciation of pseudo-words/unknown words with analogous spelling patterns instead of mapping every individual letter or letter pair to its corresponding phoneme. Irregular words like **light** and **fight** are consistent with a large number of rhyming words such as: **night, might, right, tight,** and so on**. Hence, a child who learns how to pronounce the letter string '**light**', and then uses that word as a basis for analogies to similar words like '**night**' and '**bright**', will be at a distinct advantage. This is because the uses of analogies that are based on rhyme help children to read both regular and irregular words (Goswami and Bryant, 1992; Goswami, 1994).

As indicated by some pioneers in this field (Marsh, Desberg, and Cooper, 1977; Marsh et al., 1980, Goswami, 1992, 1994, 1998), analogy might be particularly crucial in the later phases of reading development, when readers have merged memory for an assortment of spelling-pronunciation patterns, through training at the grapheme-phoneme conversion level. Marsh and his coworkers' investigation (1977) gives proof supporting this view. Their survey demonstrated that 7-year-old children made less analogies of pseudo-words to real words than 10-year-old children.

Other researchers like Goswami and Bryant (1990) assert that if little children are given information about how a word can be parsed into phonemic units at the onset-rime level, they can apply this skill to decipher new words.

Consequently, depending on onset- rime awareness, children can abstain from decoding a new word phoneme by phoneme. In this light, phonological awareness at the rime level comes to assume a major job in facilitating the reading process. At the methodological level, the analogy theory of reading is bolstered by some activities, for example, distinguishing rhyming words, producing rhyming words, and portioning or blending words at the onset-rime unit (Goswami and Mead, 1992). Nevertheless, connectionist models offer a different explanation for word recognition.

2.8.2.3. Parallel Distributed Processing/ Connectionist Models

Connectionism is a theoretical framework which assumes that word recognition proceeds in parallel and not in sequential. That is to say, later processes operate on the outputs of earlier processes before the completion of the formers. The process of recognition is fulfilled via the activation of processing units and mediation of connections between units (Rogers, 2009).

Seidenberg and McClelland's model (1989) initiated parallel distributed processing model of word recognition. They emphasized that visual word recognition results in the activation of phonological information in parallel with other representations. The model provides presumptive mechanisms for the two major aspects of word-recognition acquisition. The first aspect that must be learned is spelling/sound correspondences. The second aspect concerns the distribution of permissible letter combinations making up the written words in the language (Harris and Small, 1998).

Seidenberg and McClelland's triangle model comprises two pathways between the written and spoken forms of words: a pathway mapping directly from orthography to phonology, and a second pathway, which maps from orthography to phonology via semantics (Powell et al., 2006). Words can use both pathways. Nevertheless, non-words or pseudo-words (units of speech that appears to be an actual word in a certain language, while in fact it has no

meaning in the lexicon such as heth, lan, nep, rop, sark, shep, spet, stip, toin, and vun) can only use the orthography→ phonology pathway. The orthography→ semantics pathway is more "holistic" in its processing of words, because, with the exception of morphemes, correlations between the components of print and meaning are generally not very systematic (e.g., the B in BAT gives a clue to the initial pronunciation of the word, but gives very little hint as to its meaning) (Harm, et al., 2003). Figure.2.5 shows the connectionist framework for lexical processing, based on that of Seidenberg and McClelland (1989).
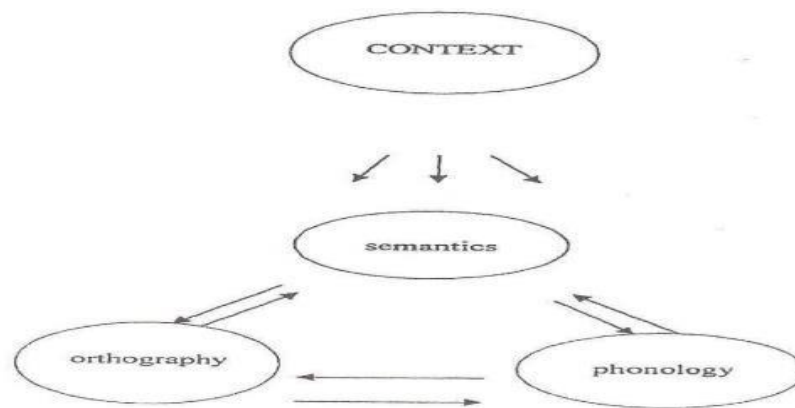
**Figure.2.5. The Seidenberg and McClelland (1989) Framework of Reading
(Adapted from Snowling and Bishop, 2004, p.871)**

In a parallel distributed processing model, the connections between spoken and written words are progressively learned via distributed orthographic, phonological, and semantic processes. At the point when an individual reads the word ***cheese***, for example, the orthographic process, i.e., the printed word on the page, needs to create a fitting phonological representation. This happens because of excitatory and inhibitory interactions among orthographic, phonological, and semantic units. This implies connections between the letters in the words (orthographic units), the speech sounds delineated by the letters (phonological units), and the reader's lexical information (semantic units). At the beginning of reading process, constrained phonological knowledge is regularly accessible. In this way, the orthographic representation of the word ***cheese*** may animate any

phonological representation beginning with the letter **/c/**. When phonological information increments and relationship between explicit graphemes and phonemes are reinforced through the learning process, just associations from the orthographic pattern near phonological representations (e.g., cheer, cheap, choke) are activated. Continued learning and access to a total phonological representation of the word *cheese* will reinforce the relationship between the orthographic, phonological, and semantic processes. Along these lines, every single other association will be gradually inhibited (Seidenberg and McClelland, 1989; Bjaalid, Hoien, and Lundberg, 1997; Harm and Seidenberg, 1999). The connections between the orthographic units and phonological form become stronger by increasing the 'weights'. The weights represent learning. These connections are generated via a set of 'hidden units.' These units make the representation of complex mappings possible (e.g., phonemes represented by more than one grapheme, as *f* and *ph* for*/f/)* to be made between the orthographic and phonological units (Seidenberg and McClelland, 1989; Bjaalid, Hoien, and Lundberg, 1997; Seidenberg, 2005; Rogers and McClelland, 2005).

One of the most influential connectionist models of word recognition is the TRACE model (McClelland and Elman, 1986). It is an interactive model of auditory word recognition. TRACE identifies words on the basis of auditory features and phonemes instead of visual features and letters (the interactive activation model). Therefore, the influence of lexical knowledge on speech perception is the result of feedback from the word level to lower levels of representation (Zevin, 2009).

In this model, each phoneme, or word in a section of speech is represented by the activation of single units or nodes in a network. Each unit in the network has a different activation level and an entry determining at which level of activation the unit starts to influence other units. Connections between units are either positive (excitatory connections) or negative (inhibitory connections). Excitatory connections are bidirectional and facilitatory. They exist between

levels that share common properties. They tie nodes which are mutually consistent (eg., that the word /**pan/** contains the phoneme /**p/**). Inhibitory connections reflect the fact that a feature node cannot be at the same time strongly present and strongly absent. They bound nodes which are mutually inconsistent (eg., if /**p/** is activated it will tend to suppress activity for related phonemes, such as /**b/**). In this way, the likelihood of recognizing a word is defined in terms of competition between activated word nodes. The word node which in the end dominates all others will be recognized. The flow of information through the network is relatively slow (McClelland and Elman, 1986, Elman, 1989).

In connectionist models, both regular and exception (irregular) spelt words are believed to be processed similarly, through a profoundly interrelated system of orthographic, phonological, and semantic information obtained by the reader. Harm and Seidenberg (1999) investigated the role of phonological knowledge in early reading acquisition and how impairment at the phonological level may interfere with reading acquisition. They indicated that by debilitating the tasks of phonological awareness, there was a decline in individuals' capacity to read non-words and irregular words. Consequently, it could be said that phonological information assumes a key role in reading because it is important for processing irregular words (e.g., sword) and decoding grapheme-by-grapheme words (e.g., cheer).

Gillon (2007) comments that connectionist models are increasingly significant to understanding the role of phonological awareness in reading acquisition. Moreover, she adds that these models are consistent with Ehri' dual route and analogy models. These models express that skilled readers utilize information about a word's phonological structure, either at the phoneme or beginning rime level, to get to both regular and irregular spelt words in print. Within this framework, fostering phonological awareness knowledge in children can help them utilize phonological information during reading and spelling tasks

(Gillon, 2007). Although, decoding is a crucial process, it is insufficient for reading competence. A skilled reader must be fluent.

2.8.2. Phonological Awareness and Reading Fluency

Oral reading fluency refers to the accurate and quick oral identification of discourse; in other words, the speed and completeness with which words can be identified from their visual forms (Adams, 1990). Extensive research has demonstrated that the development of reading fluency is associated with improved reading comprehension. It is considered as a bridge between word decoding and reading comprehension or a predictor of reading comprehension. As the reader begins with letter recognition, proceeds to decoding, gains fluency, and develops comprehension skills (Potter and Wamre 1990; Reutzel and Hollingsworth, 1993; Pikulski and Chard, 2005; Cadime et al., 2017). Therefore, fluency is generally acknowledged as a critical component of skilled reading; furthermore, it serves as an indicator of overall reading competence (National Reading Panel, 2000; Fuchs et al, 2001). There are diverse views of reading fluency and hence different models. Most of these theories are partial in that they are concerned with specific aspects. They do not endeavor to explain all aspects of the reading fluency process. There has been no single theory that can be called the most acceptable. Three models are discussed in this research.

2.8.2.1. Theory of Automatic Information Processing in Reading (1974)

The relationship between automaticity and decoding was discussed in the influential LaBerge and Samuels' article (1974) 'Toward a Theory of Automatic Information Processing in Reading'. In fact, "La Berg and Samuels' model of reading is probably most frequently invoked as a framework for conceptualizing fluent reading" (Fuchs et al., 2001, p.241). According to Stanovich (2000), LaBerge and Samuels outlined a basic limited-capacity argument that was accepted by reading researchers throughout the subsequent decade.

This view mentions that the execution of a 'complex skill' like reading

requires the coordination of many component processes within a short time frame. When each component process involves attention, performance of the complex skill will be impossible as attention capacity will be exceeded. Nevertheless, if enough components are executed automatically, then attention load will be within tolerable limits, permitting successful performance of the skill (LaBerge and Samuels, 1974). In this regard, human beings are regarded as single-channel processors. They cannot attend to more than one thing at a time except if they alternate their attention rapidly between the various activities, or if one of the activities is so well learned that it can be performed automatically (Pikulski and Chard, 2005).

This model suggests that reading is achieved through the successful completion of a series of processing stages involving visual, phonological, episodic, and semantic memory systems (LaBerge and Samuels, 1974). In other words, lower-level reading skills such as word recognition are processed before higher-level reading skills such as language comprehension.

At the word recognition level, readers identify the words' meanings in a text. Automaticity in word recognition develops through practice, because practice decreases the attention requirement for word identification. LaBerge and Samuels (1974) assert that "attention is needed to activate the association of a heard word into its meaning, but with enough practice, a word should elicit its meaning automatically" (p.308).

According to this theory, comprehension refers to the organization of the word meanings as a coherent whole. LaBerge and Samuels (1974) state that "when comprehension processes are automatic, reading appears to be "easy." When they require attention to complete their operations, reading seems to be "difficult." (p.308). As a result, comprehension processes are consistently and excessively resource-demanding since fast automaticity always allows better comprehension (Taguchi, Gorsuch and Sasamoto, 2006). Consequently, it can be said that this model predicts a positive correlation between reading skill

automaticity that can be reached through practice and comprehension. Readers with more automated reading skills will have more control processing resources for text modeling and will have better comprehension (Walczyk, 2000).

Although, the Automatic Information Processing Theory has been considered as one of the most outstanding models that accounts for reading fluency; other models have been initiated later on. One of the most prominent models is Verbal Efficiency Theory.

2.8.2.2. Verbal Efficiency Theory (1985)

The Verbal Efficiency Theory introduced by Perfetti (1985) represents a landmark in the study of reading. Perfetti's model stresses the importance of accurate and rapid word recognition, working memory processes, general symbol activation and retrieval, lexical access and retrieval, and learning and practice, as crucial factors in enhancing reading effectiveness (Breznitz, 2006).

Charles Perfetti set out a clear framework for describing the complex interactions between lower "word-level" processing and higher "sentence-level" and "text-level" processes, which he referred to collectively as the "text work" of the reader (Van Dyke and Shankweiler, 2013). Perfetti (1985) posits that "the local processes refer to those by which temporary representations of text are established" (p.100). According to him, individual differences in reading comprehension are the outcome of individual differences in the efficient operation of "local processes" (Wolf and Katzir-Cohen, 2009). He mentions that "the outcome of reading is limited by the efficient operation of local processes" (Perfetti, 1985, p.101). These codes- local processes- can work as assistive function and their efficiency can be improved through learning and practice.

Local processes' efficiency is referred to as verbal efficiency. It is the extent to which reading subcomponents capable of automatization operate quickly and free of errors (Walczyk, 2000). In other words, it is the degree to which reading subcomponents are exercised with speed and accuracy (Taguchi,

Gorsuch, and Sasamoto, 2006). Perfetti (1985) states that "when these codes are retrieved rapidly and are high in quality. This means the system is efficient" (p.118). Hence, these codes high efficiency affect both reading fluency and comprehension. Therefore, the ease with which a text work can be performed by a reader depends on the extent to which these individual sub-processes are efficient (Van Dyke and Shankweiler, 2013).

Verbal Efficiency Theory argues that reading processing is influenced by working memory capacity. Perfetti (1985) believes that reading may fail because of working memory problems despite the high efficiency of local processes. He suggests two main explanations of working memory failure. First, the inappropriate functioning of memory can lead to the working memory inability of manipulating linguistic information. Second, some structural problems can make the working memory frustrated of grasping all of the information generated by the local processes. Consequently, individual differences in working memory may also cause individual differences in reading fluency independently of the efficiency of the local processes (Barth, 2006).

This theory focuses on automaticity in decoding (Taguchi, Gorsuch, and Sasamoto, 2006). It attempts to explain the relationship between the low-level processes (e.g., word recognition) and high-level processes of reading (e.g., comprehension) in terms of verbal efficiency and the sharing of limited cognitive resources (Wu, 2016). It assumes a hierarchical arrangement of subcomponents in the reading system (Walczyk, 2000; Taguchi, Gorsuch, and Sasamoto, 2006) as reading skills vary on a continuum ranging from inefficient to efficient (Li, 2010). It is theorized that the more efficient lower-level subcomponent reading processes are, the more attentional resources are available for higher-level subcomponents of reading by ensuring better quality of information transmission from lower- to higher-level subcomponent processes (Taguchi, Gorsuch, and Sasamoto, 2006). That is to say, an efficient subcomponent executes in less time and transmits a superior quality of information to higher level subcomponents in

the reading system (Walczyk, 2000).

Wu (2016) wrote that there is a major difference between skilled and unskilled readers at word-level processing. Skilled readers' efficient word-level processing allows them to read words without using conscious attention. Nevertheless, unskilled readers' inefficient word-level processing drains the very attentional resources needed to maximize comprehension.

To put it bluntly, the Verbal Efficiency Theory suggests that individual differences in reading comprehension are the outcome of individual differences through the efficient execution of the "local processes", "reading component skills", and "working memory". The more efficient lower-level reading component skills are, the more cognitive resources are available for higher-level reading components, thereby ensuring better reading comprehension or fluent reading. As for the working memory, Perfetti (1985) clarifies that "the disruption of memory for prior context and poor memory codes interfere with propositional encoding" (Fuchs et al., 2003, p.725). That is, "inefficient lexical access disrupts the temporary representation of text in working memory" (Perfetti, 1985, p.114). A few years later, the Rauding Theory was devised and introduced by Carver.

2.8.2.3. Carver's Reading Rate Theory (Rauding Theory) (1992)

Carver (1992) in his "Rauding Theory" focused on the factors that influence the prediction of both reading rate and reading comprehension. This theory asserted that 'reading rate' can be predicted in the various reading situations. This could be fulfilled through 'rauding' that is reading (looking at words and determining their meaning) and auding (listening to words and determining their meaning) (p.84). The term rauding (Carver, 1977; 1992; 2000) was developed to focus on the similarities (common attributes) between reading comprehension (reading) and listening comprehension (auding). It refers to comprehension of the complete thoughts in the sentences of textual material, whether presented visually or auditorily (Carver, 1992).

The term "reading" usually incorporates looking at printed words in the form of sentences so that to comprehend the meaning; nonetheless, it is possible that reading occurs without comprehension. The term "auding" usually involves listening to spoken words in the form of sentences so that to comprehend the meaning; nevertheless, auding may occur without comprehension. Rauding means that an individual is comprehending most, if not all, of the thoughts during reading or auding (Carver, 2000). Figure 2.6 shows the theoretical connections among reading, auding, and rauding.
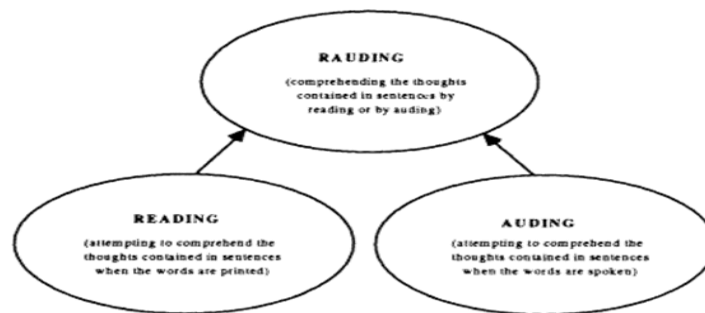
Figure.2.6. The Theoretical Connections among Reading, Auding, and Rauding (Adapted from Carver 2000, p.4).

Carver (1992, 1997, 2000) assumes that reading has five basic processes, also called *reading gears*. Gear 1 is memorizing. It implies all five components (lexical accessing, semantic encoding, sentence integrating, idea remembering, and fact rehearsing), so it is the slowest process. Gear 2 is learning. It entails four components (lexical accessing, semantic encoding, sentence integrating, and idea remembering); hence, it is less slow than memorizing. Gear 3 is rauding. It is the basic process that most readers use regularly (normal reading, or natural reading). It demands three components (lexical accessing, semantic encoding, and sentence integrating); therefore, it operates faster than the two previous gears. Gear 4 is skimming. It involves two components (lexical accessing and semantic encoding); thus, it is faster if compared to the other three reading processes. Gear 5 is scanning. It is the fastest gear. It necessitates only one component, lexical accessing, so it operates at a relatively high rate. The following table illustrates the five basic reading processes.

Table.2.2. Five Basic Reading Processes or Reading Gears (Adapted from Carver 1997, p.6)

Gear Process		Culminating Component	Rate for College Learners (Wpm)
5	Scanning	Lexical accessing	600
4	Skimming	Semantic encoding	450
3	Rauding	Sentence integrating	300
2	Learning	Idea remembering	200
1	Memorizing	Fact rehearsing	138

Note. **Wpm = standard-length words per minute; a standard-length word is six-character spaces, or six letters and spaces.**

According to this theory, reading is achieved at the level of rauding, that is, "the process used by an individual to comprehend each consecutively encountered, complete thought in a passage" (Carver, 1990, p.468). The rauding level represents the fastest rate at which an individual can successfully understand complete thoughts in each sentence. The rauding rate is "the individual's highest rate of comprehension whereby comprehension is relatively accurate" (Carver, 1990, p.144). High and low reading achievement is caused by four levels (referred to as "echelons") of factors. Proceeding from the last level inward, the fourth echelon includes two teaching and learning factors, one age factor, and three aptitude factors (verbal knowledge, decoding, and cognitive speed). The third echelon contains listening, decoding, and naming speed. The second echelon incorporates reading and rate while the first echelon comprises reading achievement (Carver, 1997). The table below depicts the four levels (echelons) of high and low reading achievement.

Table.2.3. Four Echelons of High and Low Reading Achievement

Echelons	Factors Included
Echelon 1	- Reading Achievement
Echelon 2	- Reading - Rate
Echelon 3	- Listening - Decoding - Naming speed
Echelon 4	- Teaching and learning - One age - Aptitude factors: verbal knowledge, decoding, and cognitive speed

As a conclusion, it could be said that rauding refers to individuals' capability of recognizing printed words smoothly while the complete thoughts are being comprehended as they are read. In other words, rauding means to read normally with high accuracy of comprehension; hence, "fluency" and "rauding" are synonymous terms (Carver 2000, p.5). Nonetheless, this theory has received some criticisms." Hill (1977- 1978), for instance, believed that a number of statements in Carver's theory were "contradictory." He referred to it as 'definitional inadequacy', "as some crucial terms, such as "reader" and "understanding," are implied rather than defined." (p.84). In addition, he declared that this theory has a number of inadequacies at the level of structure and empirical compatibility. Pearson and Kamil (1977-1978) charged this theory of being limited since it neglects 'psycholinguistic interpretations' of reading. Besides, the experimental and statistical data of this theory are insufficient because they are open to question. Finally, fluency is essential to successful reading. Nevertheless, it is by no means sufficient, especially when texts are complex. Comprehension appears to be necessary.

2.8.3. Phonological Awareness and Reading Comprehension

Reading comprehension is viewed as the central purpose of reading and even as the "essence of reading" (Luckner and Handley, 2008; Durkin, 1993). It has been defined as "the active process of constructing meaning from text; it involves accessing previous knowledge, understanding vocabulary and concepts, making inferences, and linking key ideas" (Vaughn and Linan-Thompson, 2004, pp.98–99). Comprehension is dependent upon several skills such as reading accuracy (fluency), semantic skills, working memory, vocabulary, inference making, and verbal ability (Cain and Oakhill, 2006). Hence, reading comprehension is a salient component of children's learning. "It is essential not only to academic learning but to lifelong learning as well" (National Reading Panel, 2000). There are several different models of reading comprehension, and two of them will be tackled in this research. It is important to note that none of the following models or any other models have priority over another. Rather, all of these models of reading comprehension are crucial for accounting for how understanding of text is fulfilled via reading.

2.8.3.1. The Goodman Model (1967)

Goodman's paper "Reading: A Psycholinguistic Guessing Game" (1967) marked a schism between the view of reading as rapid accurate consecutive word recognition and the understanding of reading as a process of constructing meaning of print. He sought to rebut "the 'common-sense notion' that reading is a precise process – one that requires exact, detailed and sequential identification of letters, words, spelling patterns and larger language parts" (p.126). However, he stressed the idea of reading as a 'psycholinguistic guessing game'. This reflects the view that the reader is continually engaged in making predictions during the act of reading. He believed that good readers must rely on some graphic information to confirm an informed prediction from syntactic and semantic information, "as the child develops reading skill and speed, he uses increasingly fewer graphic cues…", therefore, "skill in reading involves not greater precision,

but more accurate first guesses" (p.132).

The logic of the model suggested that 'efficient reading' is a 'selective process'. It is characterized by the partial use of the most productive language cues– syntactic, semantic and graphic – necessary to produce guesses which are right the first time. Decisions are made about whether to accept, reject or refine acquired information from these cues (Goodman, 1967, pp.126-127).

According to Goodman (1967), although there is no graphic connection between '*the*' and '*your*'; a student interchanges between the two words during reading. He argued that the student must be using a syntactic cue to decode the text. The substitution occurs because the two words have the same grammatical function (both are noun markers). The subsequent error is acceptable because meaning is retained. Such errors are referred to as "miscues". Goodman and Burke (1973) state that miscues in the process of reading are deviations from the path that would lead to the expected response (p.1).

Goodman (1967) illustrates saying that if a student mispronounces the word '*philosophical*' and '*fortune*', his miscues are the result of the absence of a connection between the text in which these two words occur and a context. This proves that effective reading must comprise all three cues (graphic, semantic, and syntactic) of information simultaneously (p.128).

A huge bulk of research has demonstrated that Goodman model of reading has a number of weaknesses. Goodman's assumption that good readers depend on context for word recognition, and that they make less use of letter information than poor readers as they read is falsifiable. His claim appears defensible when referring to comprehension process, but appears to be largely incorrect when applied to the word-recognition level of processing (Stanovich, 1986).

Furthermore, Goodman's method of reading neglects phonological information which is a crucial element in skilled reading. In addition, it pays little attention to the readers' role of uncovering the authors' intended meanings. In

this context, Groff (1979) says that Goodman Model of reading "lacks correspondence to what research says about the effectiveness of phonics instruction and word reading abilities. Besides it lacks of concern for the responsibilities the child reader has for finding the precise meanings authors intend for the individual words they write." (p.376). Due to the above reasons, other models of reading comprehension have been offered such as the simple view of reading.

2.8.2.2. The Simple View of Reading (1990)

The Simple View of Reading was firstly coined by Gough and Tunmer in 1986. They reported that "reading equals the product of decoding and comprehension" (Gough and Tunmer, 1986, p.7). This model considers reading (R) as the product of listening/linguistic comprehension (C) and decoding (D). The relationship is shown in the equation, $R = C \times D$ (Gough and Tunmer, 1986, pp.6-7). This means that there could be no reading comprehension where either decoding or listening comprehension equals zero. In other words, a learner who has virtually no decoding skill will be a non-reader. Similarly, a learner who has no language comprehension skill will also be a non-reader (Dreyert and Katzt, 1992, p.161; Joshi and Aaron, 2000, p.87).

Hoover and Gough (1990) redrafted this view. They emphasized reading comprehension as the product of two important components: decoding (word recognition) and linguistic comprehension. These two components are proposed to be equally important (Hoover and Gough, 1990). On this view, decoding and linguistic comprehension are independent components of reading, for research shows that different underlying skills and abilities contribute to the prediction of decoding and reading comprehension skills (Joshi and Aaron, 2000; Florit and Cain, 2011).

Hoover and Gough (1990) offered a number of conceptual definitions for each component. Decoding is defined as "efficient word recognition or the ability

to rapidly derive a representation from printed input that allows access to the appropriate entry in the mental lexicon, and thus, the retrieval of semantic information at the word level" (Hoover and Gough, 1990, p.130).

This skill can be adequately assessed by pronouncing isolated real words or pseudo words. Furthermore, linguistic comprehension is defined as "the ability to take lexical information (i.e., semantic information at word level) and derive sentence and discourse interpretation", and reading comprehension is defined as "the same ability, but one that relies on graphic-based information arriving through the eye" (Hoover and Gough, 1990, p.131).

In general, the Simple View of Reading assumes that reading comprehension is the "product" of "decoding" and "linguistic comprehension". The strength of this theory lies on its simplicity and its testable predictions. "…in addition to its simplicity, is that it has allowed a set of non-trivial and testable prediction" (Hoover and Gough, 1990, p.157). Nevertheless, this view does not provide sufficient evidence on whether the relationship between "decoding" and "linguistic comprehension" is multiplicative or additive (Joshi and Aaron, 2000, p.90). In addition, the role of oral reading fluency in the model is unclear (Cadime et al., 2016). Furthermore, there was no mention of 'rate' or 'efficiency' when discussing how decoding should be measured, either with respect to real words or with respect to pronouncing pseudo-words for beginning readers (Carver, 1993).

In short, reading competence invokes three correlated skills: word recognition, fluency, and comprehension. In fact, the absence of one of these three skills might cause many pitfalls in reading. Children should master each skill proficiently before moving to the next. However, proficient reading competency cannot be achieved except if children have already acquired good phonological awareness skills. Extensive research has demonstrated that phonic approaches to reading instruction represent the most effective methods for teaching reading skills because they may facilitate phonological awareness or

they may provide the child with the basis for discovering the systematic relationships between print and sound that is embodied in the cipher (Flesch, 1981; Williams, 1985). Therefore, the relationship between phonological awareness and reading competence should be described in more details.

2.9. The Influence of Phonological Awareness on EFL Reading Competence

Most of the research on phonological awareness has concentrated on monolingual children despite the predominance of bilingualism in the world's population (Romaine, 1999). However, the increasing number of EFL learners has led to the swiftly growing of L2 reading research. Few studies of phonological awareness and L2 reading have been conducted in the past; thus, researchers tend to rely on findings of research on native English speakers and assume similar underlying processes and component cognitive skills.

A number of studies have examined whether the same cognitive-linguistic skills that predict L1 reading peculiarly explain the EFL children reading performance from different linguistic background. For instance, Durgunoglu et al. (1993) surveyed the factors influencing the English word identification performance of Spanish-speaking beginning readers. Analyses revealed that the readers' performance on English word and pseudo-word recognition tests was predicted by the levels of both Spanish phonological awareness and Spanish word recognition. Therefore, first-language learning and experience can aid children in the beginning stages of reading. Likewise, Stuart-Smith and Martin (1999) discussed the development of tasks to assess phonological awareness in bilingual Panjabi-English children. They found that certain tasks used to assess phonemic awareness are language-specific; they appear to function for English but not for Panjabi. Their findings also demonstrated that assessments of phonological awareness in bilingual children in only one language may not necessarily predict the profile of phonological awareness for the other language in all respects. However, Geva, Yaghoub- Zadeh and Schuster (2000) focused on the extent to which the development of ESL (English as a Second Language)

word recognition skills mimics similar trajectories in same-aged ELI (English as a First Language) children, and the extent to which phonological processing skills and rapid naming can be used to predict word recognition performance in ESL children. Results suggested that phonological awareness and rapid naming can be useful in predicting the development of basic reading skills in ESL children. In addition, the development of ESL word recognition skills can be understood and predicted by the availability of prerequisite cognitive-linguistic skills. Besides, individual differences on such prerequisite skills can be indicative of smooth or problematic acquisition of ESL reading skills. It follows that, as with EL1 children, some ESL learners may have a specific learning disability involving word recognition skills. These in turn may result in the emergence of more complex problems over time.

Recent empirical investigations have demonstrated that phonological awareness is a significant predictor in the development of reading in English as a foreign/second language. Chiappe, Siegel, and Wade-Wooley (2002) surveyed whether the same phonological processes are involved in reading acquisition for kindergarten's children with varying levels of proficiency in English. There were 727 native English children and 131 ESL children. They have reached the conclusion that alphabetic knowledge and phonological processing are important contributors to early reading skill for children from both language groups. Also, Jongejan, Verhoeven, and Siegel (2007) conducted a survey on predictors of reading and spelling abilities in first- and second-language learners. The results suggested that phonological awareness remains the strongest predictor of word reading ability for L1 and ESL children. In a similar vein, Afsah (2019) conducted a cross-sectional correlational study on a sample of 50 Arabic speaking Egyptian kindergarten children who speak English and other European languages. Participants were subjected to assessment of both phonological processing and emergent literacy using specially constructed tests in Arabic. Results demonstrated a highly significant positive correlation between total scores of phonological processing and of emergent literacy tests.

Taken together, phonological awareness is fundamental to reading development in EFL classrooms. Children with different linguistic backgrounds need this prerequisite skill to reach reading proficiency. Conjointly, evidence demonstrates that L1 phonological awareness is transferrable to aid L2 reading for children with different languages.

2.9.1. Cross-language Transfer of Cognitive-linguistic Skills from L1 to L2

Language transfer is an important characteristic of second language acquisition. It refers to the influence resulting from similarities and differences between the target language and any other learnt language (Odlin, 1989). It reflects the effects of mother tongue linguistic knowledge and cognitive skills such as phonological skills on L2 reading acquisition.

Many studies have endeavored to scrutinize the cross-language transfer in different literacy processes such as phonological. For example, Cisero and Royer (1995) examined whether phonological awareness skills develop in a specific pattern and whether they transfer to another language. The results showed that phoneme awareness in Spanish is significantly associated with phoneme awareness in English.

Cross-language transfer is also apparent in EFL learners whose L1 is non-alphabetic. Gottardo et al. (2001) examined the cognitive-linguistic skills related to English reading performance in Chinese-speaking children. Findings indicated that phonological skills in both L1 and L2 were correlated with L2 reading and contributed a unique variance to L2 reading even if the children mother tongue is a non-alphabetic language. Likewise, Xiuqing and Aimin (2006) checked out the role of phonological awareness in EFL reading acquisition through an analysis of a speech sample by a Cantonese (L1) speaker in both segmental and supra-segmental levels. The analyses indicated a clear understanding of the sources of some of pronunciation problems, mainly the interference and transfer of the L1 sound system on EFL. Moreover, results proved the necessity and positive effects

of promoting phonological awareness for EFL learners as a means of improving reading skills. Correspondingly, De Sousa et al. (2010) compared the performance on Zulu monolingual phonological awareness, Zulu monolingual and emergent bilingual spelling. In addition, they explored phonological awareness and spelling in emergent bilingual Zulu–English speakers to ascertain cross- language transfer relationships. Findings supported that L1 phonological awareness is related to spelling across languages in emergent bilinguals. In emergent bilinguals, both Zulu spoken proficiency and English-only literacy instruction influences the underlying repertoire of phonological awareness skills used to spell within the L1 and the L2. Rime and phoneme phonological awareness and spelling skills in Zulu/English rely on language-specific orthographic knowledge.

In brief, phonological awareness skills tend to be a potent predictor of L2 reading acquisition for EFL learners with different mother tongues, as it does for monolingual young children learning to read English. Moreover, many surveys have demonstrated that both L1 and L2 phonological awareness skills are correlated with L2 reading. Thus, it is necessary to explore the connection between phonological awareness and Arab EFL learners' reading competence.

2.9.2. The Influence of Phonological Awareness on Arab EFL Learners Reading Competence

A huge bulk of research on the relationship between phonological awareness and literacy has been conducted on English children but not on Arabic speaking children. As a result, there is a paucity of research on phonological awareness and its influence on Arab EFL learners (Al-Sulaihim and Theo, 2017; Tibi, 2016). Recently, a number of studies have attempted to explore this issue.

Evidence has shown the effectiveness of explicit phonological awareness instruction on the development of word-reading ability for EFL first-graders in a Jordanian state school. Hence, integrating a number of phonological awareness

activities such as: segmentation, isolation, deletion, substitution and blending in Jordanian primary schools' curricula is expected to lessen EFL learners' pronunciation problems in subsequent academic stages (Al Tamimi, 2012; Altamimi and Rabab'ah, 2007). Besides, Farran et al. (2011) examined the relationship among multiple components of language, namely, phonology, morphology, vocabulary, and reading outcomes in 83 bilingual English- Arabic children. Results revealed associations between phonological awareness skills across English and Arabic. Results also showed that for Arabic and English, phonological awareness predicted word and pseudo-word reading accuracy. Similarly, Al-Shaboul et al. (2014) sifted Arabic phonemic awareness among early readers of Arabic and its impact on Arab children's reading ability. They examined whether phonological awareness in L1 facilitates learning to read in L2. Results indicated that Arab EFL learners seem to have difficulty with pre-lexical word recognition processes leading to slower and perhaps even less accurate L2 word recognition skills. This confirmed cross-language transfer. Further, Barakah et al. (2015) conducted an investigation to detect phonological awareness deficits in Egyptian Arabic-speaking children. They concluded that the more knowledge children have about the constituent sounds of words, the better they tend to be at reading. In addition, Amor and Ben Maad (2013) investigated the effect of Arabic orthography on the phonological awareness acquisition of Tunisian primary school and preliterate children. Findings demonstrated that manipulation of syllables is far easier than that of phonemes. Also, the deletion of phonemes was an easier task than phoneme segmentation and counting unlike English and Hebrew. Moreover, Alamrani and Zughaibi (2015) illustrated some of the phonological and morphological shifts that confuse the reading process of Arab ESL learners. Their study also demonstrated how Arab ESL learners' knowledge of English phonology and morphology rules affects their reading process. Additionally, Abou-Elsaad and Abd El-Hamid (2016) examined Arabic phonological awareness (PA) skills and the relation to word reading abilities in Egyptian Arabic-speaking children. The findings

revealed a strong relationship between phonological awareness skills and the proficiency in word reading abilities in Arabic school-aged children. Most importantly, Schiff and Saiegh-Haddad (2018) researched the development and the relationship between foundational meta-linguistic skills and word reading skills in Arabic. The findings provided an additional support for the claim that at the beginning of the reading acquisition process, children rely heavily on the phonological information in order to decode words successfully.

Algerian studies related to phonological awareness and its impact on reading are very scarce. For instance, Ait Aissa (2010) inquired into the difficulties that Algerian Tamazight speakers may encounter when learning and pronouncing English sounds. He focused on the phonological aspects of the native language (Tamazight) and the target language (English). The results suggested that Algerian EFL learners find hindrances in pronouncing some English consonant sounds like/ŋ/ and some English vowels such as: diphthongs and triphthongs. He also stressed on the importance of phonological awareness in acquiring both native and foreign language.

On the whole, it can be said that although there has been a growing body of research that shows a general positive relationship between phonological awareness and reading achievement, researches about phonological awareness on Arabic speaking children and Arab EFL children are very sparse. Investigations related to phonological awareness in Algerian monolingual and Algerian EFL contexts are very scanty if not void. From here comes the need to scrutinize the influence of phonological awareness on Algerian EFL learners' reading competence.

Conclusion

The current chapter accounted for phonological awareness. It demonstrated that phonological awareness is a meta-cognitive skill characterized by the ability to break a sentence into words, a word into syllables and syllables into phonemes. In addition, it clarified some misbeliefs about phonological awareness. It stated that phonological awareness is distinct from phonemic awareness and phonics. Phonemic awareness is a sub-skill of the broad category of phonological awareness. Phonics, however, refers to the instructional method for teaching letter-sound relationships in order to decode printed words.

Next, the chapter scrutinized the significance of phonological awareness in language learning. It showed the critical role of phonological awareness in early literacy and language development. It revealed that phonological awareness is crucial in helping beginning readers break the orthographic code.

Most importantly, it is an essential prerequisite for reading and spelling. It also claimed that the purposeful and appropriate instruction in phonological awareness can support young children's literacy and language development and help them understand how to decode and spell words, particularly when combined with instruction in both alphabet and vocabulary knowledge. After that, the chapter explored the impact of explicit phonological awareness training on reading competence and the phonological aspects needed to remediate reading. Finally, it emphasized the strong link between phonological awareness and reading competence in both monolingual and EFL contexts. It mentioned that phonological awareness skills are transferable across languages mediated by typological distance, particularly similarities in phonology and orthography. For instance, it is easier to acquire proficiency in two languages when they are transcribed using the same systems (such as the Roman alphabet), than when the languages are orthographically different. Moreover, the chapter stressed the fact that most studies on phonological awareness and reading competence have been only conducted on European and Asian EFL contexts. Phonological awareness

studies that look at the influence of phonological skills on Arabic EFL learners' reading competence are rare. Furthermore, few studies have focused on the impact of phonological awareness to foster Algerian EFL learners' reading competence. By and large, the importance of phonological awareness and its effect on reading competence has proven to be a crucial area for both English monolinguals and EFL learners alike. It is a critical area that should continue to be researched and studied by linguists, educators and reading specialists in order to evolve and improve the teaching curricula. Above all, the effectiveness of reading interventions can be enhanced and reading achievement can be obtained by all children regardless of their phonological awareness ability. The present study aims to fill the research gap by examining the contribution of phonological awareness to enhance Algerian EFL learners' reading competence.

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Introduction

In the previous chapter, a review of literature was conducted to contextualize and justify the present study in the area of phonological awareness and its contribution to reading competence. This chapter explains the research objectives and the methodology used in collecting data. Specifically, the chapter describes the research design, study area, study population and sampling, and the data analysis and presentation procedures. In fact, the researcher describes the objectives, the field, and the steps of this research and attempts to provide clear arguments of his options in conducting this survey. It includes detailed explanations of the data collection procedures. Moreover, it explains the research's steps to provide a clear overview of the research.

3.1. Research Questions and Objectives

The current research intends to shed light on the contribution of phonological awareness to developing reading competence with reference to first- and fourth-year pupils at Tayeb Boulahrouf Middle School (TB MS), Kouba, Algiers. This study aims to address the following research questions and their related sub-questions:

RQ1: What is the place of phonological awareness in EFL reading instruction, at Tayeb Boulahrouf Middle School (TB MS) Kouba, Algiers?

SQ1: How is phonological awareness incorporated in first-and fourth- year middle school EFL textbooks?

SQ2: What are the attitudes of First- and Fourth-middle school EFL learners regarding the role and importance of phonological awareness in learning to read English?

SQ3: What are EFL teachers' attitudes towards the integration of phonological awareness within English reading instruction?

SQ4: How do school inspectors view the integration of phonological awareness within English reading instruction at the middle school level?

RQ2: What is the contribution of explicit phonological awareness instruction to the reading competence of First- and Fourth-middle school-level EFL learners, TB MS Kouba, Algiers?

SQ1: How does explicit instruction in phonological awareness contribute to the development of First- and Fourth- year learners' phonological awareness skills?

SQ2: How does explicit instruction in phonological awareness contribute to improvements in reading competence among First – and Fourth-year EFL learners?

The overarching objective of this research was to demonstrate the contribution of phonological awareness to the development of reading competence among Algerian EFL middle school learners.

Specifically, the study aimed

- To analyze the inclusion of phonological awareness in current Algerian middle school EFL curriculum materials.

- To assess the attitudes and perspectives of learners, teachers, and inspectors concerning phonological awareness instruction and its role in reading development.

- To evaluate the impact of explicit phonological awareness instruction on improving reading skills among EFL learners.

The research questions will guide the methodological design and data collection process to comprehensively address the research aims related to understanding the role of phonological awareness in Algerian middle school EFL reading competence.

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3.2. Research Design and Methodology

A research design is the overall strategy of constructing a structure, or plan for the research project. It seeks to employ specific instruments to examine the relationship among variables, analyze and understand the collected data (Leavy, 2017; Creswell, 2014). The present study employed an exploratory sequential mixed methods design for investigating the contribution of phonological awareness to developing first- and fourth- year pupils reading competence at Tayeb Boulahrouf Middle School (TB MS), Kouba, Algiers. Creswell (2014) mentions that this methodological design involves to the use of a systematic mixed methods approach to collect and describe the data through two phases. In the qualitative/exploratory phase, the researcher gathers data through using some methods such as document analysis, questionnaires, and interviews to improve the accuracy of the data collection tools, to identify the research variables, or to choose appropriate research instruments in the subsequent phase. In the quantitative phase, the dependent variable is measured once before the treatment is implemented and once after it is implemented through the usage of pretests and posttests. The figures 3.1 and 3.2 illustrate the current research design.
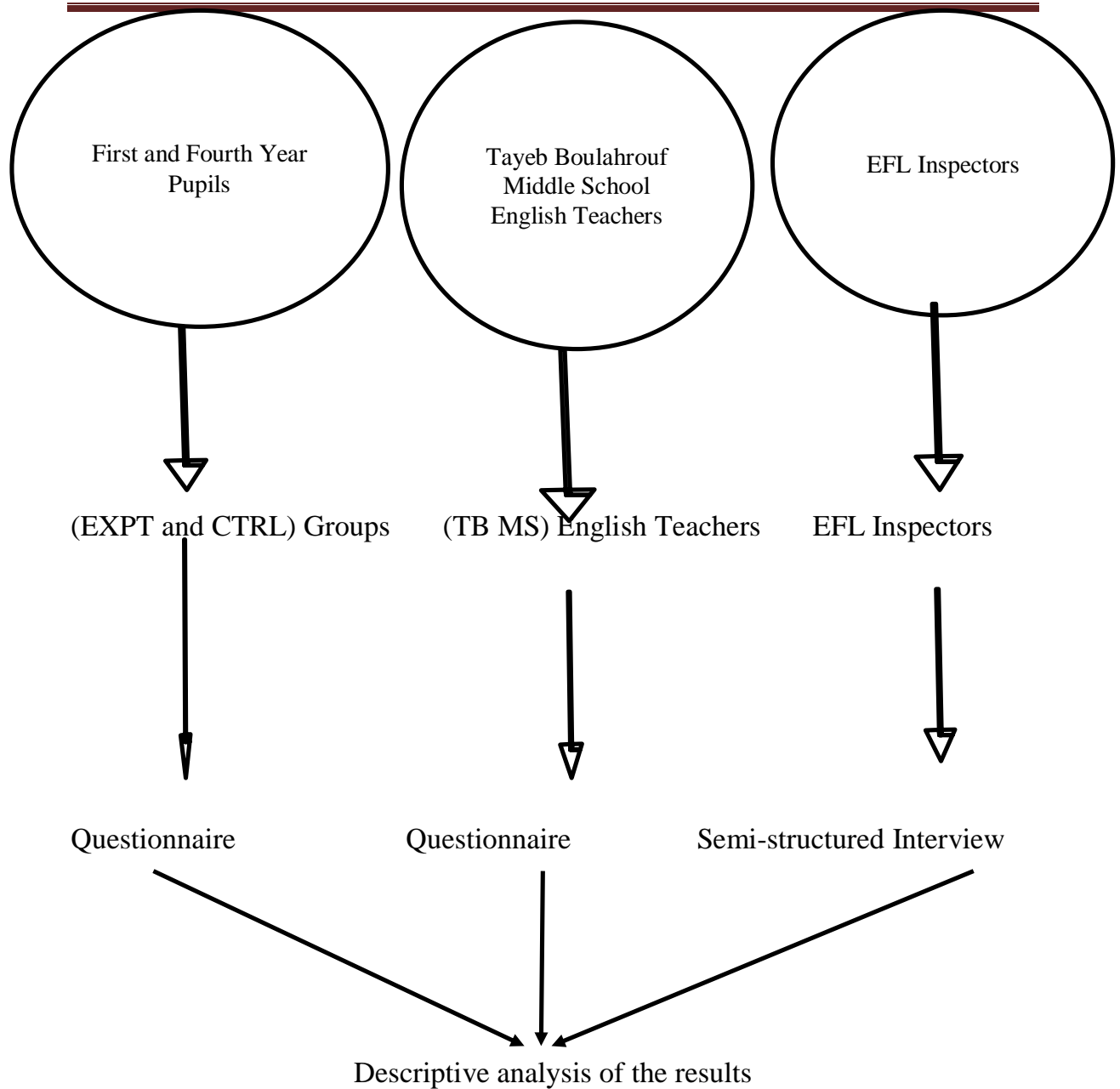
Figure 3.1. Research Design of the Exploratory Phase

First and Fourth YearPopulation

Two groups

Two groups

Non-random Selection

Non-random Selection

EXPT Groups

CTRL Groups

Pretest Evaluation

Pretest Evaluation

Phonological Awareness Training

Usual Reading Instruction

Posttest
Evaluation

Posttest
Evaluation

Comparison of the results

Rejection or Acceptance of Research Hypothesis
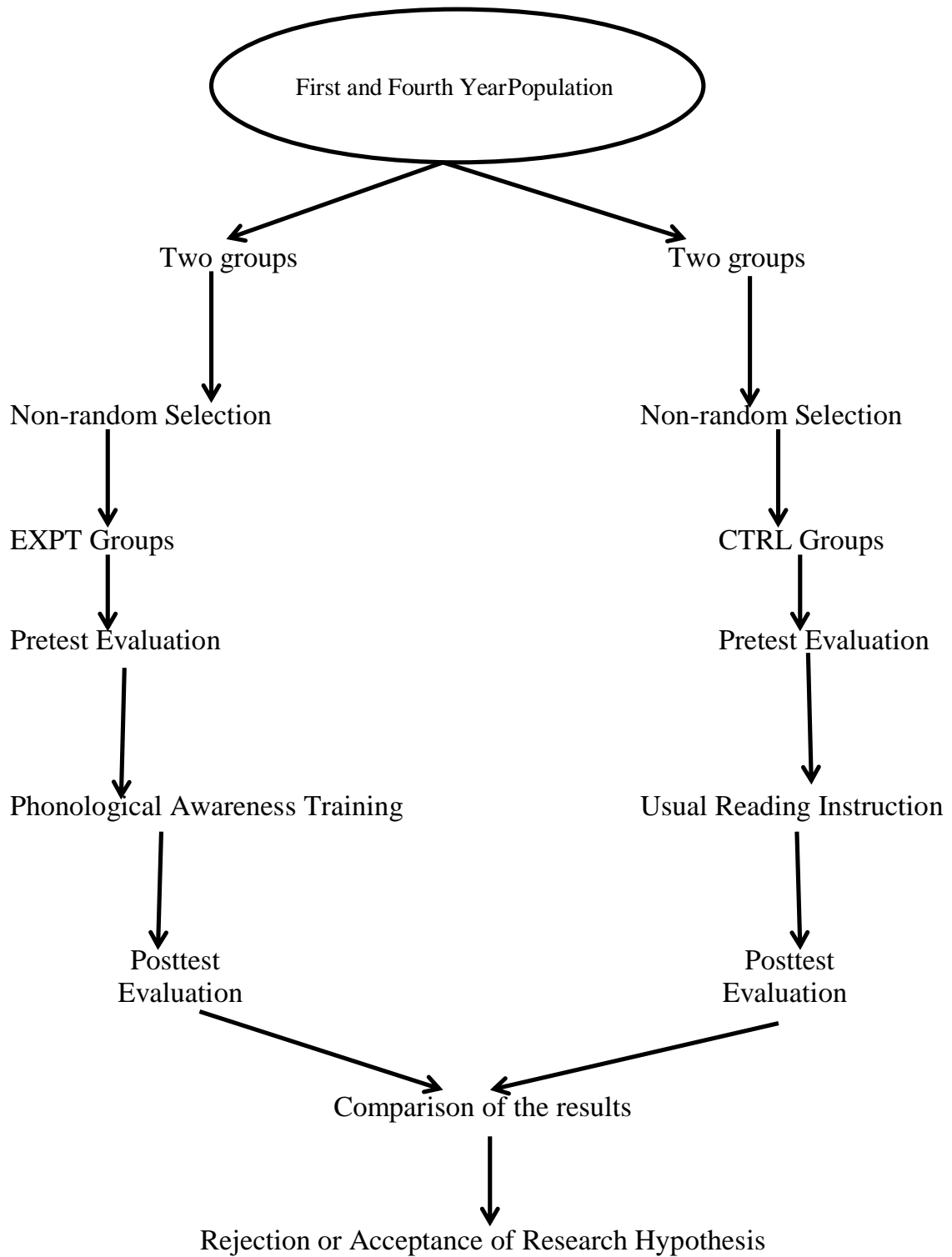
Figure 3.2. Research Design of the Quasi-Experimental Phase

Hence, this research employs a mixed methods sequential exploratory design consisting of two primary phases: An exploratory phase and a quasi-experimental phase (Creswell, 2014).

3.2.1. Exploratory Phase

This phase involves collecting and analyzing qualitative data through three main techniques:

- Document analysis of 4 middle school EFL textbooks used in Algerian middle schools. A checklist approach is used to systematically evaluate the inclusion of phonological awareness content within the curriculum materials.

- Questionnaires distributed to 5 EFL teachers and 80 pupils across 1st and 4th year levels at Tayeb Boulahrouf Middle School (TB MS), Kouba. The questionnaires use closed-ended Likert scale ratings and open-ended questions to assess learners' perspectives regarding phonological awareness instruction and reading.

- One-on-one semi-structured interviews with 15 middle school EFL inspectors from different regions of Algeria. Semi-structured interviews are conducted online and allow for in-depth probing of inspectors' attitudes and beliefs about phonological awareness teaching.

The use of multiple qualitative methods allows for triangulation across data sources and rich, multi-faceted exploration of the research problem from the vantage point of key stakeholders like students, teachers, and curriculum developers (Patton, 1999). Document analysis provides insights into official curriculum guidelines while questionnaires and interviews offer perspectives from actual implementation.

3.2.2. Quasi-Experimental Phase

This phase applies quantitative quasi-experimental methods to evaluate a phonological awareness intervention. The sample of 80 pupils is divided into an experimental group (n=40) receiving explicit phonological awareness instruction

and a control group (n=40) that follows the regular English program. Pretests on measures of phonological awareness (e.g. phoneme blending) and reading competence (e.g. reading fluency) establish baseline skills for both groups. The experimental group then undergoes the intervention over 3 weeks. Finally, both groups are post-tested on the same measures.

This pretest-posttest control group design allows the impact of the phonological awareness intervention to be evaluated by statistically comparing gain scores between the two groups (Creswell, 2014). Greater gains for the experimental group would demonstrate the causal effect of the intervention in improving phonological awareness and reading competence.

Using qualitative exploration to guide development of a focused intervention, followed by quantitative evaluation of the intervention's outcomes, provides a comprehensive understanding of the research problem. The mixed sequential approach leverages the strengths of both methodologies.

3.3. Research Setting and Participants

3.3.1. Research Setting

The study took place at Tayeb Boulahrouf Middle School (TB MS), Kouba, a public school located in the densely populated Algiers province of Algeria. The school was selected due to its large size and adherence to the standardized national middle school curriculum. Class sizes range from 20-25 students across 40 total classes. The research activities were conducted during regular 60-minute English class periods (less than 60 minutes due to the COVID-19 from 2020 up to 2022) in the existing classrooms used by the pupil participants. These typical classroom environments helped ensure a natural setting for the phonological awareness instruction and reading assessments.

3.3.2. Participants

Levy and Lemeshow (2008) view that "the population (or universe or

target population) is the entire set of individuals to which findings of the survey are to be extrapolated" (p.11). Put differently, population refers to all the people of interest to the study and to whom the findings will be able to be generalized. However, Marczyk, Dematteo and Festinger (2005) assert that "researchers may not be able to examine the entire population of interest" (p.18). For that reason, the sampling is necessary to be representative of the selected population.

A convenience sample of 80 pupils participated in the study, with 40 first year middle school students and 40 fourth year middle school students. The age range was 11 to 17 years old. There were 42 males and 38 females in the sample. Pupils were sampled from two classes at each grade level based on administrator and teacher approval to participate. All pupils spoke Arabic as their first language and were judged to have English proficiency levels between high-beginner and low-intermediate. This range is representative of overall English abilities for Algerian pupils at these grades.

First and fourth year were selected to enable comparison of pupils near the beginning and end of middle school English education in Algeria. First year is when most pupils are first introduced to English language, while fourth year pupils have studied English for four years and are preparing for key exams. Assessing phonological awareness and reading skills at these two time points provided insights into their development throughout middle school.

Additionally, 05 English teachers (5 females) from the school completed a questionnaire. The teachers had between 6 to 20 years of experience teaching middle school English. Their participation provided perspectives from instructors regularly teaching reading and phonological awareness skills to Algerian students.

Finally, 15 English curriculum inspectors from various regions of Algeria were interviewed, selected using purposive sampling to include informative experts with responsibility for nationwide curriculum implementation. The

inspectors had 3 to 20 years of experience overseeing English programs in Algeria's middle schools. This granted them extensive knowledge about English instructional practices and challenges across different parts of the country. The table below demonstrates the participants' profile.

Table.3.1. Participant Profile

Participants	Number	Gender		Age	Working Experience
		Male	Female		
Pupils	80	42	38	11-17	/
Teachers	05	05	00	/	6-20
Inspectors	15	10	05	/	3-20

3.4. Data Collection Instruments

The data for this study was collected by means of document analysis, questionnaires, interviews, and pretests and posttests.

3.4.1. Document Analysis

According to Schwandt (2007), document analysis refers to"…..the examination of documents and records relevant to a particular study. These sources of data can include public records, private documents, interview transcripts and transcripts prepared from video records, and photographs." (p.75). In other words, it is an analytical method for evaluating, analyzing and interpreting data generated from printed documents in qualitative research. It aims at gaining an understanding of meaning embedded in the documents and thus developing upon the information they provide.

In Algeria, textbooks serve as the basis for much language input that the learners receive when practicing it. Hence, it is necessary to explore these

textbooks with a focus on phonological awareness tasks and their relation to reading development. The Algerian Ministry of Education initiated new reforms that resulted in the publication of new English textbooks for the four levels of middle school. The new manuals feature an eclectic approach based on the current theories proposed by communicative trends. They are respectively, My Book of English One (MBOE 1) for first year, My Book of English two (MBOE 2) for second year, My Book of English Three (MBOE3) for third year, My Book of English for fourth year (MBOE4). It is necessary that textbooks be constantly evaluated so as to examine their effectiveness. Researchers use different approaches to evaluate manuals such as; in depth evaluation, retrospective evaluation, and for suitability evaluation. Sheldon (1988) assumes that textbook evaluation is subjective, and no one set of criteria can fit all situations. As a consequence, several researchers in the field have developed their own criteria (checklists) as a tool to judge the worth of textbooks, such as, Sheldon (1988), Skierso (1991), Cunningsworth (1995), Ur (1996), and Litz (2005). For the mentioned reasons, a self-constructed checklist will be built, as an endeavor to meet the requirements of a specific context of use and a specific group of learners. As a result, the current study seeks to shed light on the approach and the objectives used in these textbooks. By the same token, it spells out the four manuals layout. The document analysis examined:

- Explicit goals and objectives related to building phonological awareness skills.

- Direct explanation of phonological awareness concepts like phonemic awareness.

- Types of practice activities focused on phonological awareness, such as phoneme manipulation.

- Sequencing of phonological awareness activities from basic to complex.

- Scaffolding and supports for mastering phonological awareness

components.

- Connections made between developed phonological awareness and reading outcomes.

- Inclusion of phonological awareness in teacher lesson plans and facilitation guides.

3.4.2. Questionnaires

The first type of research instruments is questionnaires. They are one of the most popular methods of data collection in second language (L2) research (Dörnyei, 2003). They are made up of a number of questions that are printed or typed in a specific order on a form or set of forms. The informants read the questions clearly and try to answer them. Indeed, questionnaires are easy to handle, simple to answer, and quick to analyze. They also provide a clear picture of the respondent's feelings and attitudes (Kothari, 2009). Therefore, the researcher used two questionnaires directed to both EFL teachers and learners at Tayeb Boulahrouf Middle School in order to collect the necessary data for this survey. The questionnaires are a combination of closed-ended and open-ended questions**.**

3.4.2.1. Pupil Questionnaire

The first questionnaire was administered to First- and Fourth-Year Pupils at Tayeb Boulahrouf Middle School, Kouba, Algiers enrolled during the academic year 2021-2022. It was delivered to both EXPT and CTRL groups before the phonological awareness (PA) treatment. It sought to collect data about the contribution of phonological awareness to developing reading competence. The pupil questionnaire contains 16 questions. They are divided into three sections.

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> **Section One- Interest in Reading**

This section explores students' initiation timing for English reading, frequency of independent reading, enjoyment of classroom reading, and external reading preferences. It provides perspective on engagement and exposure fundamentals underpinning reading development (questions 1-4).

> **Section Two- Self-Evaluated Reading Proficiency**

This section has students self-appraise multiple facets of their own reading abilities including overall competence, learning difficulty, biggest struggles like decoding or comprehension, and additional hindrances they encounter. It signals confidence along with persisting hurdles requiring specialized enhancement for some (questions 5-9).

> **Section Three - Perspectives on Reading Instruction**

This section investigates student opinions regarding current instructional techniques used by teachers to teach and assess reading. It captures attitudes toward effectiveness along with suggestions for improvement targeting motivation and outcomes. It also catalogs the types of phonological awareness activities students report doing, and whether they feel these boost overall literacy (questions 10-16). The table below illustrates the pupil questionnaire questions and their objectives.

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Table.3.2. Pupil Questionnaire

Section	Question	Aim
Section 1: Interest in Reading	Q1. You started reading English at which stage?	-To explore when the individual started reading in English.
	Q2. How often do you read in English?	-To explore how frequently pupils engage in reading.
	Q3. How much do you like reading English at classroom?	-To know whether the pupil enjoy reading in the classroom.
	Q4. Do you read outside of class?	-To explore whether pupils are interested in reading outside of the school curriculum.
Section 2: Learners' Reading Proficiency	Q5. How do you evaluate your reading competence?	-To examine the pupils' self-evaluation of their reading competence.
	Q6. How do you find learning how to read English?	-To determine the perceived difficulty of learning to read English.
	Q7. In your opinion, what is the most difficult part of reading?	-To solicit subjective insights into the perceived challenges that individuals face when engaging in the reading process.
	Q8. What are some other difficulties you face when reading?	-To identify additional challenges that pupils may encounter during the reading process.

	Q9. Do you think that pronunciation activities in your textbooks improve your reading competence?	-To understand how pupils perceive the value and effectiveness of pronunciation activities included in their text books.
Section 3: Learners' Attitudes towards Teaching Reading Methods	Q10. Which method does your teacher use to teach reading?	-To gather information about the specific instructional methods employed by the teacher in the context of reading instruction.
	Q11. What do you think of your teacher's method for teaching reading?	-To gather opinions and perspectives from pupils about the effectiveness, satisfaction, and overall experience with the teacher's chosen method for teaching reading.
	Q12. Which skill does your teacher focus more when teaching reading?	- To identify the specific reading skill or component that the teacher emphasizes during instruction.
	Q13. What do you think about the activities used by your teacher to assess your reading?	- To gather feedback from pupils about the assessment activities employed by their teacher in the context of reading.
	Q14. Does your teacher use phonological awareness activities to teach reading?	- To gather information whether teachers include phonological awareness activities in their English courses and the type of these PA activities.
	Q15. Do you think that phonological awareness activities can improve your	-To gather insights into pupils' beliefs regarding the potential impact of phonological awareness activities on

	reading competence?	their reading competence.
	Q16. What do you suggest for your teacher to help you improve your reading competence?	- To gather insights from pupils regarding their preferences and recommendations for enhancing their reading competence.

3.4.2.2. Teacher Questionnaire

The second questionnaire was directed to the EFL teachers at Tayeb Boulahrouf Middle School. It aimed at gathering data about the teachers' perspectives on the role of phonological awareness in fostering EFL learners' reading competence. The teachers' questionnaire contains of fifteen questions. They are divided into two sections.

➢ **Section One- Perceptions on Middle School Program**

This section scrutinizes teachers' perceptions on middle school EFL teaching programs. It seeks to know information about the middle school grade the participants currently teach (questions 1-2). Besides, it clarifies whether they use an intensive teaching program in their classes or not.

➢ **Section Two- Perceptions on Reading Instruction**

This section sheds light on the EFL teachers' opinions on middle school reading instruction in connection with phonological awareness (questions 3-15). First, it explores whether the participants are satisfactory about the current reading teaching approaches and the possible reasons behind their choice. Second, it unfolds the respondents' opinion on what is the most important reading skill in the middle school reading program. Third, it demonstrates where the participants allocate time for teaching phonological awareness in their reading program. Forth, it explores whether the participants use phonological

awareness assessment to predict reading abilities. Fifth, it reveals whether the participants designate specific areas (learning centers) within the classroom that provide pupils with exciting and interesting experiences to practice, enrich, reteach, and enhance their phonological awareness skills. Sixth, it shows the type of phonological awareness skills the participants formally teach in their middle school classroom. Seventh, it clarifies how often the informants formally assess their pupils' phonological awareness skills. Eighth, it evaluates the participants' perceptions on phonological awareness via a Likert scale that contains a series of statements through which the respondents' rate from 1 (strongly disagree) to 5 (strongly agree) to share their attitudes about topics like:

1. PA is an essential reading skill in middle school.

2. PA instruction focuses only on the sounds in words.

3. Beginning readers should be able to isolate sounds in words.

4. Learning to read involves blending sounds to form words.

5. PA and phonics instruction teach the same reading strategies.

Ninth, it elaborates the participants' difficulties when teaching phonological awareness. Finally, it unfolds some suggestions giving by the participants when teaching phonological awareness. The table below delineates the teacher questionnaire's items and their aims.

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Table.3.3. Teacher Questionnaire

Section	Question	Aim
Section 1: Personal Information	Q1. Gender	- To gather demographic information about the gender of the participants.
	Q2. Years of Middle School Teaching Experience	- To understand the level of experience of the participants as middle school teachers.
	Q3. Did you graduate from a university or from a teacher training school?	- To know whether the participants graduated from a university or a teacher training school.
Section 2: Reading Instruction	Q4. Which type of middle school program do you currently teach?	- To identify the specific grade level the teachers are currently instructing.
	Q5. Which type of middle school program do you currently teach?	- To gather information about the scheduling format of the middle school program (e.g., full days, alternate days, half-day mornings, etc.).
	Q6. What do you think of the current approaches used to teach reading?	- To assess teachers' opinions on the effectiveness of current approaches used to teach reading.
	Q7. Which reading skill would you consider the	- To identify the reading skill considered most important to teach

	most important to teach in the middle school reading program?	in the middle school reading program.
	Q8.Where do you allocate time for phonological awareness instruction in your planning?	- To understand where teachers allocate time for phonological awareness instruction in their planning.
	Q9. Would you use a phonological awareness assessment to predict reading abilities?	- To determine whether teachers use phonological awareness assessments to predict reading abilities.
	Q10. Do you have learning centers* which focus only on phonological awareness skills?	- To identify whether teachers have dedicated learning centers focusing on phonological awareness skills.
	Q11. What type of phonological awareness skills do you formally teach in your middle school classroom?	- To understand which specific phonological awareness skills are formally taught in the middle school classroom.
	Q12. How often do you **formally** assess phonological awareness skills?	- To determine how often teachers formally evaluate their pupils' phonological awareness skills.

	Q13. What are your perceptions toward phonological awareness instruction in middle school?	- To gather teachers' perceptions regarding the importance and efficacy of phonological awareness instruction.
	Q14. What are some possible difficulties in teaching phonological awareness?	- To identify and gather information on the challenges or difficulties teachers may face in teaching phonological awareness.
	Q15. Are there any additional comments about how reading competence can be improved through phonological awareness in your classroom that you would like to add?	- To share their insights, experiences, and suggestions related to the role of phonological awareness in enhancing reading competence.

3.4.3. The Interview

The second type of research instruments is the interview. Burns (1999) contends that "interviews are a popular and widely used means of collecting qualitative data." (p.118). That is to say, they are among the most familiar strategies for collecting qualitative data. The interview method of collecting data involves presentation of oral-verbal stimuli and reply in terms of oral-verbal responses (Kothari, 2009). The primary goal of interviews is to draw out information from the participants. Thus, an online semi structured interview was destined for English inspectors from different provinces of Algeria (Algiers, Bouira, Medea, and Tairet,) to reveal their knowledge about the topic. Paper-

And-Pencil Interview or face-to-face interviews were disregarded due to the pandemic (COVID-19). It consists of fifteen questions. They are divided into three sections.

➤ **Section One-Reading Competence**

This section asks inspectors to identify the main reading challenges facing EFL learners, the causes of these difficulties, and potential solutions for treating reading gaps. It aims to capture their perspective on frontline issues hindering literacy development (questions 1-3).

➤ **Section Two-Instruction in the Alphabetic Code**

This section focuses specifically on using phonics techniques to teach letter-sound connections. It asks if inspectors think this aids reading acquisition given inconsistencies between English phonics and spellings. It also explores views on striking the right balance with whole word memorization reading strategies (questions 4-7).

➤ **Section Three-Relevance of Phonological Awareness**

This section gauges inspector attitudes on the current significance placed on phonemic awareness instruction by EFL teachers. It asks if they view phonological skills training as necessary for reading gains. Additionally, it has them delineate suggestions for better leveraging phonological awareness to maximize reading outcomes (questions 8-12). The table below shows the inspectors' interview questions and their aims.

Table.3.4. Inspector Interview

Section	Question	Aim
Section 1: Reading Competence	Q1.What are the main problems that face EFL learners in reading?	-To identify and understand the primary challenges EFL learners encounter in the reading process.
	Q2. What are the causes of these difficulties?	-To delve into the root causes of reading difficulties and possibly uncover additional factors.
	3. How could reading difficulties and efficiencies be treated?	-To gather insights into potential strategies for treating reading difficulties and deficiencies.
Section 2: Instruction in the Alphabetic Code	Q4. Will teaching EFL learners' letter- sound correspondences help them develop their reading competence?	-To explore whether teaching EFL learners the Alphabetic code can contribute to the improvement of their reading competence.
	Q5. Can large sight-word vocabulary compensate for poor decoding skills?	-To understand the relationship between sight-word recognition and decoding skills.
	Q6. Should EFL learners be encouraged to rely on context or on the alphabetic code to recognize words?	-To explore whether EFL learners should be encouraged to rely more on context or on the alphabetic code for word recognition.
	Q7. Can emphasis on the alphabetic code detract from comprehension, which is the	-To investigate whether an emphasis on the alphabetic code can detract from comprehension,

	real purpose of reading?	the ultimate purpose of reading.
Section 3: **The Relevance of Phonological Awareness Instruction**	Q8.Is the significance of the phoneme valued by EFL teachers?	-To explore the importance placed on the phoneme by EFL teachers.
	Q9.Is phonological awareness training necessary to gain good reading competence?	-To understand whether phonological awareness training is perceived as necessary for gaining good reading competence.
	Q10.Is phonological awareness more a consequence of reading skill or a prerequisite?	-To determine whether phonological awareness is considered more a consequence of reading skill or a prerequisite for reading development.
	Q11.What do you suggest to value phonological awareness as a prerequisite for reading competence?	-To gather suggestions on valuing phonological awareness as a prerequisite for reading competence and to explore potential strategies.
	Q12.Do you have any additional comments you would like to share?	-To share any additional insights or thoughts they may have regarding EFL learners' reading challenges and instructional strategies.

3.4.4. Pre- and Posttests

The fourth type of research instruments was pretests and posttests. Dimitrov and Rumrill (2003) mention that "pretest-posttest designs are used for

the purpose of comparing groups and/or measuring change resulting from experimental treatments." The current study's pretests and posttests aimed at checking learners' level of phonological awareness and reading competence before and after intervention. More precisely, these tests sought to verify participants decoding, reading speed, and comprehension abilities.

3.4.4.1. Phonological Awareness Pre-and Posttests

The five levels of phonological awareness were assessed through a number of tasks based on Chard and Dickson (1999) paradigm. The participants were provided with a brief definition of the phonological awareness skills before tackling each task. The time of phonological awareness assessments was 20 minutes.

A-Level 1: Rhyming and Alliteration

Chard and Dickson (1999) suggest that rhymes are the earliest acquired phonological skill. For example, *"fit"* rhymes with *"pit".*

Instruction:

Identify, from among three words, the one that rhymes with the target stimulus. "Which word rhymes with ''**clear**''?" (stimulus word: Fair, hair, dear)".

B-Level 2: Sentence Segmentation

Sentence segmentation refers to students' awareness that speech can be broken down into individual words (Chard and Dickson, 1999). For example, *He is my friend* is composed of four words, viz., *He*, *is*, *my*, and *friend*.

Instruction: Break the following sentence into individual words (**I try to speak English in class**)……….

C-Level 3: Syllable Segmentation and Blending

Activities related to segmenting words into syllables and blending syllables into words are at the center of Chard and Dickson's continuum.

❖ **Syllable Segmentation**

Instruction: Count the syllables in the following words. For example, *mouthful*: *mouth-ful*. Eg., Fly……………………………

❖ **Syllable Blending**

Instruction: Blend syllables following this example: "I say the word as syllables, you blend them to make the words. If I say the word bl-ink like a robot, you say it fast as blink". Eg., Plough-er………

D-Level 4: Onset-rime, Blending and Segmentation

Segmenting and blending onsets and rimes comes next in Richard and Dickson's (1999) continuum. It refers to learners' ability to break words into onsets and rimes; meanwhile, blending rimes and onsets into words.

❖ **Onset-rime Segmentation**

Instruction: Identify onsets in the following words. For example, which sound is the onset in *pit*?" "The onset is "*p*". E.g., Fact……………………

❖ **Onset-rime Blending**

Instruction: Blend onsets and rimes "e.g. If you combine the onset *f* and the rime *ar*, you will have *far*". Eg., If you combine the onset *s* and the rime *ay*, you will have……………..

E-Level 5: Segmenting and Blending Individual Phonemes

Phonemic awareness is the ability to identify and manipulate individual

sounds (phonemes) in spoken words (Chard and Dickson, 1999).

❖ **Phoneme Segmentation**

Instruction: Break the following words into phonemes. For example, if I say *cup* you should say /c /, u/, /p /. E.g., Week………………

❖ **Phoneme Blending**

Instruction: Blend the following phonemes into words. For example, if I say the word slowly, say it fast. If I say Ccccccc *aaaaaa tttttt*, you say *cat*. E.g., Fffffffuuuuuuurrrrr…………

3.4.4.2. Reading Competence Pre-and Posttests

The participants' reading competence, including word reading, reading fluency, and reading comprehension, was assessed by using different tasks. The three components of reading competence are closely associated to one another. Word recognition contributes to reading comprehension via reading fluency.

A. Word Recognition

Real word recognition was tested through the selection of 20 words from the four English textbooks currently used in Algerian middle schools (MOBE 1, MOBE 2, MOBE 3, and MOBE 4). These words were randomly chosen. The test was individually administered to each participant where he/she was asked to read aloud each word. The researcher would mark the well pronounced words by putting a tick (√) or a mark (×) where the articulations were wrong. The correct score was awarded (1) mark and the incorrect score was awarded (0) mark. The total number of correctly responded items determined their scores on this measure (Li, 2010).

The participants' ability to decode pseudo-words was measured by applying grapheme-phoneme correspondence rules. The pseudo-words reading task consisted of 20 items. These words were familiar to the participants. For

example, the word "cup" was changed into "nup". This test was also individually administered to each participant. The researcher told the participants that these words are not real words; they are pretend words that must be sounded out in order to read them. The entire pseudo-word must be read correctly to be counted as correct. The number of pseudo-words the pupils read correctly determined the score of this task (Li, 2010).

B. Reading Fluency

Reading fluency refers to the ability of reading a text accurately and quickly (Owen, 2009). In the current research, reading fluency was assessed by two texts with different linguistic difficulty: reading fluency 1 and reading fluency 2. Each participant was asked to read the two texts correctly and rapidly. The reading time for each text was recorded by a stopwatch. The researcher marked the words read incorrectly. Meanwhile, the whole reading process was tape-recorded (Li, 2010). The fluent reader was the one who recognized words automatically, without struggling over decoding issues. The reading fluency was simply calculated by dividing the number of words read correctly by the total amount of reading time.

C. Reading Comprehension

Multiple choice test and cloze test have been widely used for measuring reading comprehension since their introduction to the testing world by Taylor in 1953. Therefore, reading comprehension was assessed by means of these two tests. The tests employed in the current research were the reading comprehension sections of a large-scale mid-term English exam for first and fourth-year middle school pupils. The multiple-choice test contained 4 reading passages. Among them were 3 passages with a total of 15 multiple- choice questions, each with 4 options, and a reading passage with 5 true or false questions. The participants were asked to answer the questions after reading each passage. The cloze test contained a 120-word passage, in which 10 words were deleted and replaced with

blanks. The participants were required to replace each missing word by selecting the appropriate one from 4 options. The total score for these tests was 50. These two tests were administered in groups within a time limit of 40 minutes (Li, 2010). The table below recapitulates the pre-posttest phonological awareness and reading tasks.

Table 3.5. Pre- and Posttest Tasks

Tasks		Instruction	Duration
Phonological Awareness Tasks	Rhyming and Alliteration	Identify, from among three words, the one that rhymes with the target stimulus. "Which word rhymes with ''**clear**''?" (stimulus word) ("fair, hair, dear)"	20 minutes
	Sentence Segmentation	Break the following sentence into individual words (**I try to speak English in class).**	
	Syllable Segmentation	Count the syllables in the following words. For example, *mouthful*: *mouth- ful*. Eg., **Fly**…………	
	Syllable Blending	Blend syllables following this example: "I say the word as syllables, you blend them to make the words. If I say the word bl-ink like a robot, you say it fast as blink". Eg**., Plough- er**………	

	Onset-rime Segmentation	Identify onsets in the following words. For example, which sound is the onset in *pit***?" "The onset is "*p*". E.g., Fact**…………	
	Onset-rime Blending	Blend onsets and rimes "e.g. If you combine the onset *f* and the rime *ar*, you will have *far*". Eg., If you combine the onset *s* and the rime *ay*, you will have……	
	Phoneme Segmentation	Break the following words into phonemes. For example, if I say *cup* you should say /c /, u/, /p /. E.g., Week………	
	Phoneme Blending	Blend the following phonemes into words. For example, if I say the word slowly, say it fast. If I say Cccccc *aaaaaa tttttt*, you say *cat*.E.g.,Fffffuuuuuurrrrrr………	
Reading Competence Tasks	Word Recognition	Read the following 20 words out-loud E.g., article. Read the following 20 pseudo words (non-real) words out-loud E.g, mox.	There is no limit time.

	Reading Fluency	Try to read the two following texts correctly and rapidly.	The reading time for each text was recorded by a stopwatch.
	Reading Comprehension	1. Read the following passages (four passages) and choose the right answer. Among them were 3 passages with a total of 15 multiple-choice questions, each with 4 options, and a reading passage with 5 true or false questions. 2. Replace each missing word by selecting the appropriate one from 4 options.	40 minutes

3.5. Research Procedure

In order to investigate the relationships between phonological awareness abilities and reading competence skills, a number of questionnaires, interviews, pre-tests and posttests were administered. Five phonological awareness skills were assessed: rhyming and alliteration, sentence segmentation, syllable segmentation and blending, onset-rime segmentation and blending, and individual phoneme segmentation and blending. Three reading competence component skills included word reading, reading fluency, and reading

comprehension were also measured through a number of tests. Therefore, phonological awareness was considered as an independent variable, while phonological awareness skills (including rhyming and alliteration, sentence awareness, syllable awareness, onset-rime awareness, phoneme awareness, and word recognition), as well as reading competence (including word reading, reading fluency, and reading comprehension) as dependent variables, as illustrated in the figure below:
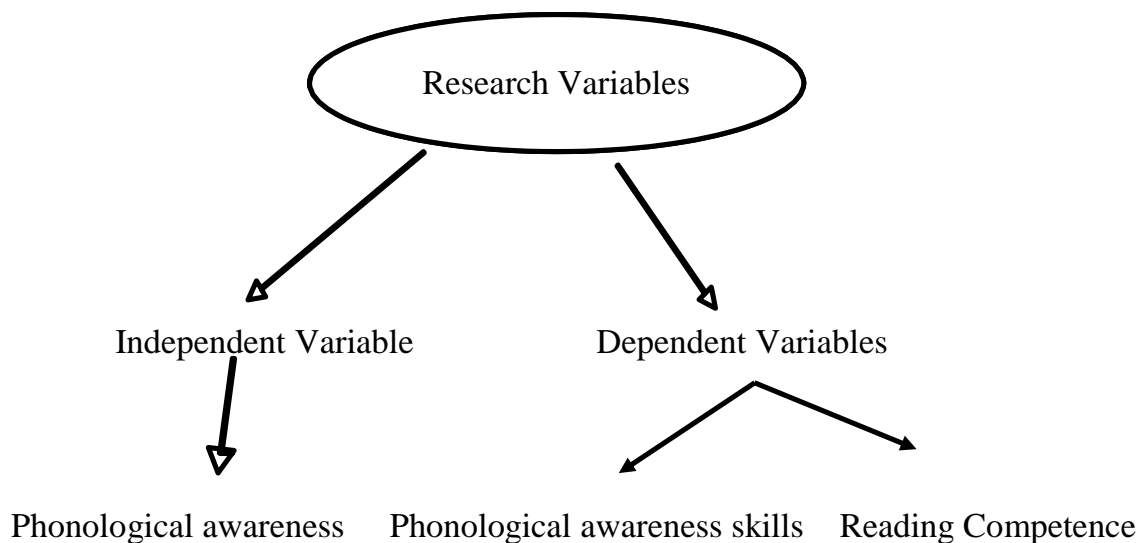
Figure 3.3. Research Variables

3.5.1. Pilot Study

A pilot study was conducted at Tayeb Boulahrouf Middle School first to identify potential problem areas and deficiencies in the research instruments and protocol prior to implementation of the full study. It involved 10 pupils to evaluate the planned phonological awareness subtests and reading measures. Students were administered 5 phonological awareness tasks with 10 items each that increased in complexity from rhyming to phoneme manipulation. Several adjustments were made based on pilot results:

- Instructions originally unclear for the sentence segmentation task were simplified after 4 pupils struggled.

- The onset-rime blending activity only yielded a reliability of .68, so 2

easier example items were added to enhance reliability.

- Pictures used for the phoneme deletion task confused some pupils, so the visual supports were changed.

- Some questionnaires items were reordered to better fit the respondents.

- Some Likert Scale Items were removed from the teacher questionnaire as they proved to be repeated only 10 items were kept for the proper study.

- The revised instruments proved more comprehensible and reliable during individual administration in the pilot. Students were able to progress smoothly through phonological awareness tasks ranging from basic to advanced in difficulty.

- The pilot also revealed time requirements - while engaged, students tired after 30 minutes of phonological awareness activities. This informed scheduling shorter regular intervention sessions to maintain engagement (20 minutes).

In total, the pilot validated most instruments but revealed key vocabulary, visual, and timing modifications necessary before full study launch. Enacting these precautions based on small-scale preliminary findings allowed for more valid and practical implementation during the broader quasi-experimental phase.

3.5.2. The Study Proper

The textbook analysis was conducted over a 2-month period at the beginning of the academic year (September, 2020). The researcher read through each 1st , 2nd, 3rd, and 4th year textbook, systematically applying the checklist criteria and extracting relevant examples. He then met to compare evaluations, resolve any discrepancies, and reach consensus on the final ratings.

The pupil and teacher questionnaires were administered during a one-week period in January (2022). The pupil questionnaire was conducted after first

year pupils got familiar with English language as it is a new subject for them. The researcher coordinated with school administrators and teachers to have students complete the paper questionnaires during 60-minute English class periods under teacher supervision. The pupil questionnaire was translated into Arabic for more authentic results. The teacher questionnaires were distributed during preparatory periods and collected at the end of the week.

Interviews with inspectors were scheduled over a 3-month period from November to January (2021-2022) based on availability and conducted via phone or Zoom. The semi- structured interviews lasted an average of 35 minutes and were recorded with permission for analysis. Brief handwritten notes were also taken during the interviews.

By the beginning of January (2022), the quasi-experimental phase was conducted using pretest- intervention -posttest design to evaluate the impact of a phonological awareness intervention on EFL learners reading competence. This pretest-intervention- posttest sequence allowed measurement of changes in scores from baseline to analyze the isolated impact of the phonological awareness training. Comparing gains between the experimental and control groups helps determine the effectiveness of the intervention in improving literacy skills. It involved three key sub-phases:

1-Pretest

By the beginning of January (2022), all participants in EXPT and CTRL groups were pretested with a number of phonological awareness and reading competence tasks. The school staff organized a room for the collection of data. They also helped in calling the respondents into the rooms that were set aside for the researcher to conduct this process.

The tasks were explained clearly to the respondents to make sure that they understood what was required of them. The researcher recorded the respondents and then played back the recordings in order to make the respondents familiar

with tape recording and reduce the effect of the observer paradox. The latter refers to the phenomenon where individuals modify or improve their behavior when they know they are being observed, recorded, or evaluated. This poses a challenge for research validity, as the data may reflect participant reactivity to the study rather than natural behaviors.

In this study, pupil reading skills were audio-recorded to enable scoring for fluency and accuracy. However, being-recorded could potentially cause pupils to feel self- conscious, altering how they would normally read. To mitigate this observer effect, the researcher first played back the recordings for students during pilot testing. The goal was to increase their comfort and familiarity with the recording procedure, so it would not unduly influence their behavior during actual testing. Essentially, exposure to hearing themselves read aloud aimed to reduce potential self-consciousness or performance anxiety when being recorded. This familiarization helps obtain natural reading data that more accurately reflects pupils' authentic abilities without reactivity influences. After the above steps, the researcher began the collection of the data.

The participants were tested in sessions that lasted for 20 minutes for phonological awareness tasks and 40 minutes for reading comprehension tasks. Before the formal testing began, the participants were asked to fill out a background questionnaire in which the information regarding their gender, age, and years of English learning was collected. Then, they received tasks in the following order: the testing started with reading tasks followed by the phonological awareness tests.

All practice items from these measures were read and carefully explained to the participants so that those with reading difficulties could participate in the study. In addition, the participants were administered in groups on the multiple choice and cloze tests assessing reading comprehension.

The researcher was responsible for pretesting and post-testing all

participants using standardized protocols to assess abilities in areas like phoneme segmentation and reading fluency. He was also responsible for carrying out the phonological awareness intervention with the experimental groups' pupils.

2- Phonological Awareness (PA) Intervention

From the mid of January to the mid of April, 2022, the participants in the experimental groups (n=40) underwent ten 20-minute sessions of phonological awareness training as presented below. The sessions were held over three weeks (four sessions a week). The control groups followed the regular middle school program, which in Algeria aims at achieving linguistic, methodological and cultural objectives (Benadla, 2013). Each phonological level required two sessions which necessitated the completion of two pertinent phonological tasks. As such, training program is consistent with Ehri et al.'s (2001) view of effective intervention. It avoids formal phonological awareness training, including early reading instruction. These tests established baseline skills prior to the intervention.

The participants were explicitly taught phonological awareness using the training material developed by Chard and Dickson's (1999) phonological awareness guidelines that suggest a continuum of complexity of phonological awareness activities ranging from rhyming and alliteration to phonemic awareness. The (PA) training was monitored by the researcher for more reliable data.

- **Level 1: Rhyming and Alliteration Training**

Chard and Dickson (1999) suggest that rhymes are the earliest acquired phonological skill, thus the participants first listened to some rhyming songs (e.g. *Five Little Pumpkins*) and practiced signing them. They were also given two tasks of rhyme practice where each consists of ten items. In task 1, following an example, they were requested to identify, from among three words, the one that rhymes with the target stimulus. For instance, they were asked, "which word

rhymes with ''crow''?" (stimulus word) ("cold, grow, pail") (grow)". In task 2, they were asked to identify, from among three options, the two words that rhyme. For example, they were asked, "Which two words rhyme *deep*, *keep*, *sat*? And they were answered "*deep* and *keep*" (Goldsworthy and Pieretti, 2012).

- **Level 2: Sentence Segmentation Training**

Sentence segmentation refers to students' awareness that speech can be broken down into individual words. Thus, the children were taught how to parse sentences into individual words; hence *He is my friend* is composed of four words, viz., *He*, *is*, *my*, and *friend*. Since songs are recommended for this matter at this stage, the children were given a song retrieved from https://learnenglishkids.britishcouncil.org/, and another extracted from their textbook (MOBE3). The participants were requested to listen to these songs and to practice them through breaking each up into its single word constituents.

- **Level 3: Syllable Segmentation and Blending Training**

Activities related to segmenting words into syllables and blending syllables into words are at the center of Chard and Dickson's continuum. The participants were trained on these activities through two main tasks. In task 1, they were taught that words consist of syllables (e.g. *mouth*: *mouth-ful*), shown pictures of 10 words, and asked to count the syllables in these words. In task 2, they were trained on blending syllables following this example: "I say the word as syllables, you blend them to make the words. If I say the word *bl-ink* like a robot, you say it fast as *blink*". Then again, they were shown pictures of 10 different words, and as pronounced by the researcher, they were asked to make words out of their syllables (Goldsworthy and Pieretti, 2012).

- **Level 4: Onset-rime, Blending and Segmentation Training**

Segmenting and blending onsets and rimes comes next in Richard and Dickson's continuum. The participants were trained to identify and blend onsets

and rimes. In task 1, the participants were required to identify onset (e.g. "Which sound is the onset in *pit*?" and answered: "The onset is "*p*"). Then, they were instructed to tell the onsets of 10 words demonstrated in pictures. In task 2, they were asked to identify rime (e.g. "Which sound is the rime in *pit*?" "The rime is *it*"). Then they were required to tell the rimes of 10 picture- illustrated words. In task 3, they were told to blend onsets and rimes "e.g. If you combine the onset *f* and the rime *ar*, you will have *far*". Then, they were asked to blend the onsets and rimes of 10 pictured-words.

- **Level 5: Segmenting and Blending Individual Phonemes**

Phonemic awareness is the ability to identify and manipulate individual sounds (phonemes) in spoken words. According to Chard and Dickson (1999), phonemic awareness is the most complex part of phonological awareness. In order to train the children on phoneme segmentation and blending, two tasks were carried out. In task 1, they were taught how to segment words into phonemes (e.g. "If I say *cup* you should say /c /, u/, /p /"). In task 2, they were asked to blend phonemes into words (e.g. "If I say the word slowly, say it fast. If I say Cccccc *aaaaaa tttttt*, you say *cat*"). For practice, 10 words were used in each task, along with picture cards to facilitate comprehension.

3- Posttest

Upon conclusion of the intervention period (the mid of April, 2022), all participants were retested on the same phonological awareness and reading competence instruments originally administered during pretesting. The effects of phonological awareness training were assessed by comparing the changes in scores from pretest to posttest for the four groups.

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The table below delineates the timeline of the administration of the research instruments and the target of these tasks.

Table 3.6. Timeline of Research Procedure

Time	Phase		Research Instruments/ Tasks	The Target
September (2020) One month	Exploratory Phase		Document Analysis	First, second, third-, and fourth-year English textbooks
January (2022) One Week	Exploratory Phase		A questionnaire	TB MS English teachers
			Two Questionnaires	First and Fourth year EXPT and CTRL groups.
November to January (2021-2022)	Exploratory Phase		A Semi-structured Interview	English Inspectors
From the mid of January to the mid of April (2021-2022)	Quasi Experimental Phase	Pretest	Phonological Awareness Tasks+ Reading Tasks	First and Fourth year EXPT and CTRL groups.
		PA Intervention	Training on Phonological Awareness Tasks	First and Fourth year EXPT groups.
		Posttest	Phonological Awareness Tasks+ Reading Tasks	First and Fourth year EXPT and CTRL groups.

3.6. Data Analysis Procedures

3.6.1. Qualitative Analysis Techniques

-   The textbook analysis involved systematically tallying ratings on the checklist criteria for each year textbook and compiling representative quotes that exemplify the presence or absence of phonological awareness

content.

- For the open-ended questionnaire responses, initial open-ended coding was performed to extract relevant concepts related to students' perceptions of reading instruction and phonological awareness learning. The codes were categorized into broader themes such as "challenges learning phonological awareness" and "preferences for teaching methods".

- The inspector interview transcripts underwent a similar process of open coding followed by thematic analysis to identify themes related to the role of phonological awareness in reading development and perspectives on its inclusion in the curriculum.

3.6.2. Quantitative Analysis Techniques

- -Quantitative analysis consisted of calculating means, standard deviations, and percentages for questionnaire and the interview responses using Excel and SPSS program Version 21.

- Descriptive statistics including means and standard deviations were calculated for each pre/post measure using SPSS Version 21. The following figure illustrates each analytical procedure (qualitative, quantitative and statistical) with the concerned research instruments (questionnaires, interview, pre-posttest scores).

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Figure.3.4. Types of Data Analysis Techniques
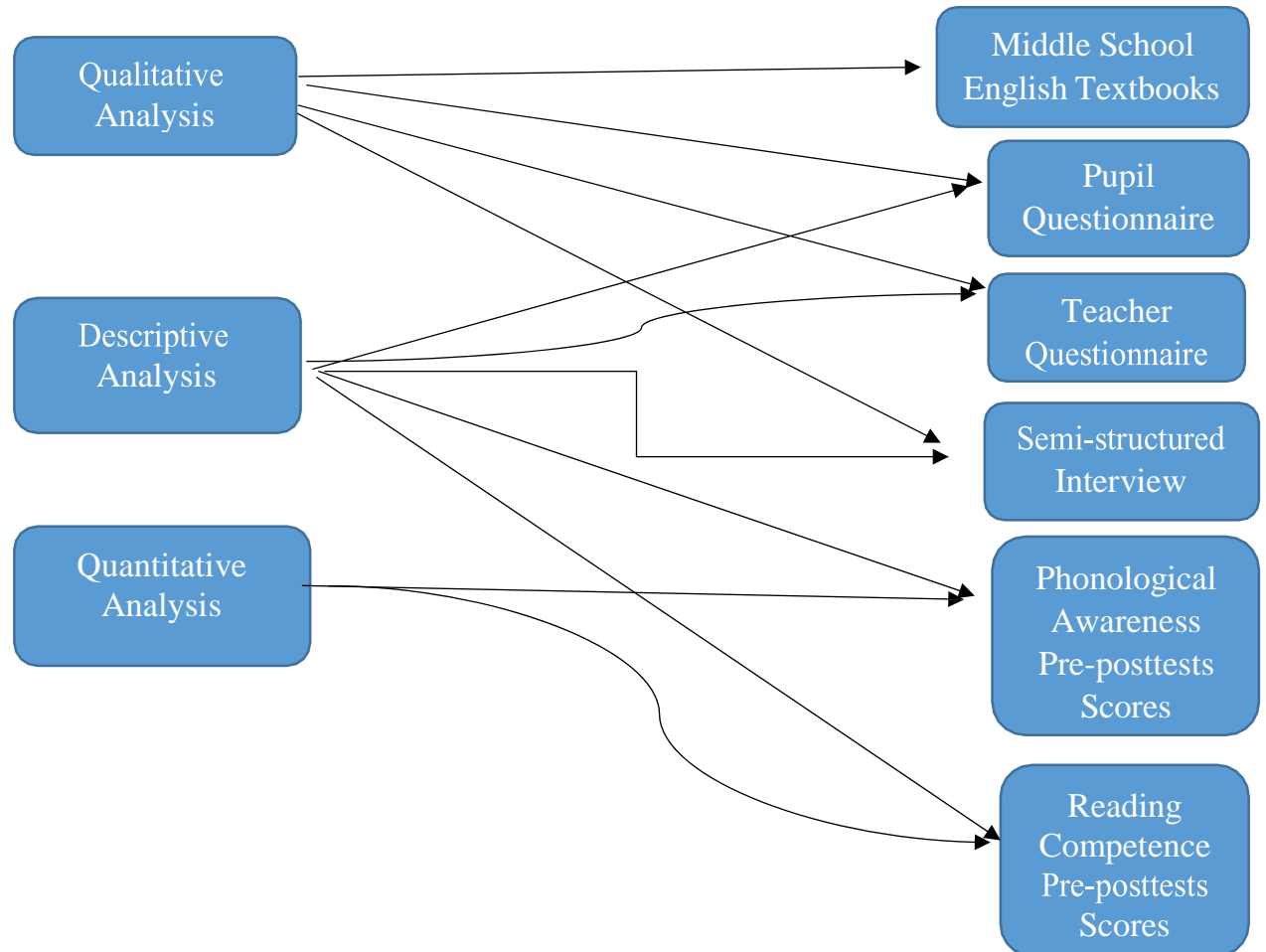
3.6.2.1. The Pre/Posttest Analysis Procedure

The pre/post analysis was carried out through four steps:

First step: The researcher conducted a Kolmogorov-Smirnov test to determine whether the dataset follows a normal distribution and to check out the reliabilities of the tests.

Second step: The researcher carried out a descriptive analysis in order to compare the pretests and posttests' mean scores of the experimental and control groups.

Third step: The researcher conducted an inferential analysis using a Paired Samples T-test to compare the EXPT and CTRL groups' pre-posttest mean

scores before and after the (PA) intervention. Meanwhile to check whether the obtained results are statistically significant.

A paired samples t-test is a statistical hypothesis test. Two hypotheses can be formulated in this test. A null hypothesis that claims that there is no significant difference between the means of the two samples. An alternative hypothesis states that there is a significant difference between the means of the two samples. The validation of the two hypotheses is done through the calculation of the t-value and the p-value. The t-value is a measure of the difference between the means of the two conditions, whereas, the **p**-value is a measure of the likelihood of obtaining the observed results by chance alone (Dash, 2013, Ross and Willson, 2018).

The alpha level (**α**) (p=0.05) was set as the criterion level for determining statistical significance. Thus, if the p-value is less than the significance level (0.05), then the null hypothesis is rejected and it can be concluded that the results are statistically significant. On the contrary, if the p-value is greater than the significance level (0.05), then the null hypothesis is retained and it can be inferred that the results are not statistically significant (Dash, 2013, Ross and Willson, 2018).

Fourth step: A Correlation Pearson Test was done to measure the strength of the linear relationship between phonological awareness, word recognition, reading fluency, and reading comprehension skills.

The integration of qualitative and quantitative analytical techniques allowed for a comprehensive mixed methods analysis of the data collected to address the research questions. The table below recapitulates the pre/posttest analysis procedure.

Table 3.7. Pre/posttest Analysis Procedure

Step	Procedure	Aim
First Step	Kolmogorov-Smirnov test	-To determine whether the data set follows a normal Distribution
Second Step	Descriptive Analysis	- To compare the pretests and posttests' mean scores of the experimental and control groups
Third Step	A Paired Samples T-test	-To compare the EXPT and CTRL groups' pre-posttest mean scores before and after the (PA) intervention. -To check whether theobtained results are statistically significant.
Fourth Step	A Correlation Pearson Test	-To measure the strength of the linear relationship between phonological awareness and other reading skills.

3.7. Reliability and Validity

Ary, et al., (2009) state that reliability of measuring the instrument is "the degree of consistency with which it measures whatever it is measuring." (p.236). That is to say, reliability means the stability and repeatability of measures, or the ability of a test to produce the same results under the same conditions. In the current research, consistency of responses was required to obtain higher degree of reliability. It was necessary to include several items related to a particular phonological awareness measure when the instrument was tested. Each subtest in the instrument was asked in a different way in order to obtain a similarity in responses.

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The textbook analysis checklist underwent extensive review by two other researchers (a linguistics teachers from Medea University and a didactics teacher from Algiers 2 University) to ensure it fully and accurately captured key elements of phonological awareness instruction. Inter-rater reliability was examined by having the coders independently analyze a subset of textbooks and comparing consistency in applying the criteria.

The questionnaires were evaluated by a panel of three researchers who provided feedback related to item clarity, appropriateness of Likert scales, and coverage of relevant constructs. Modifications were made accordingly prior to piloting the surveys with samples matching the target groups. The interview protocol was similarly piloted to refine the questions and process.

The pre-posttest, internal reliability was verified by calculating Kolmogorov-Smirnov significance for each pre/post measure. Values higher than the alpha level **(0,05)** indicated adequate inter-item reliability. Content validity was established as the instrument was being developed. Each of the items on the instrument was extracted from the data obtained from the literature review. The researcher listed the subtests of phonological awareness to be the appropriate measures of testing phonological awareness. For example, a connection to these instrument items can be made to an article by Kirby, et al., (2003) who wrote that, "there is considerable evidence that phonological awareness is a key component in the development of reading ability and that poor phonological awareness is a, or perhaps the core deficit in reading disability" (p.453).

The questions and the phonological awareness measures were given careful consideration by the researcher in developing the test instrument. The developed instrument had the potential to adequately represent the phonological awareness measures that were the focus for the study outcome. A pilot study was done to ensure that the questions and the skills being tested were clear and coherent. Construct validity was established using factor analysis. The scores of the respondents were used to compute the analysis in SPSS to get the validity

index.

The mixed methods design allowed for methodological triangulation to cross-verify and corroborate findings across qualitative and quantitative data sources. This integration improved overall study validity by minimizing limitations inherent in single methods. In total, efforts to optimize reliability and validity helped ensure high quality data that could be analyzed with confidence to address the research aims.

3.8. Ethical Considerations

Several steps were taken to ensure this study was conducted in an ethical manner. First, informed consent was obtained from all participants - parental consent for student participation, and direct consent from teachers and inspectors. The voluntary nature of participation was emphasized, allowing participants to withdraw from the study at any time without penalty. Approval to conduct research was granted from the relevant school district authorities and administrators prior to beginning data collection.

Confidentiality of responses was maintained by using anonymous coding of questionnaires and de-identifying interview transcripts. Data was securely stored with encryption and access controls to prevent unauthorized access. Care was taken to phrase questions in an unbiased manner during interviews and surveys. The school was provided a summary report of aggregated findings after study completion, omitting any individual identifying details. Overall, procedures were implemented with ethical principles in mind, prioritizing participant consent, confidentiality, voluntary involvement, and beneficence through contributing meaningful research on an important educational issue.

Conclusion

This study utilized a meticulously designed mixed methods sequential exploratory approach to comprehensively examine the research questions from multiple angles. The initial qualitative phase leveraged multiple forms of data - textbooks, questionnaires, and interviews - to gain an in-depth understanding of phonological awareness instruction from key stakeholders. Textbook analysis provided insights into the official curriculum, while questionnaires and interviews captured perspectives from students, teachers, and educational inspectors on the ground implementing English reading pedagogy. This multifaceted exploration informed the subsequent quasi-experimental phase, where an intervention was implemented with an experimental group and outcomes measured quantitatively.

The integration of qualitative and quantitative techniques allowed each phase to build on the other in an iterative process of exploration, intervention, and statistical analysis. This sequential exploratory design enabled investigating the complex research problem holistically while leveraging the complementary strengths of qualitative and quantitative methods. Thoughtful construction and validation of the data collection instruments helped ensure reliable, valid measurement of the constructs. Data collection procedures were designed to be minimally disruptive to classrooms. Ethical practices including consent, confidentiality, and transparent reporting of aggregate results to the participating school were maintained throughout the survey.

In total, the meticulous methodology combining document analysis, surveys, interviews, pre/posttests, and mixed analyses provides a comprehensive roadmap for investigating the contribution of phonological awareness to reading competence development. This rigorous design lays the foundation for the subsequent in-depth analysis and interpretation of data to derive meaningful findings that can inform phonological awareness instruction for Algerian EFL students. The methodology reflects an alignment between the research questions,

data sources, participants, and analytical techniques. The next chapter deals with the analysis and interpretation of the collected data.

CHAPTER FOUR:

EXPLORATORY PHASE:

DATA ANALYSIS AND

DESCRIPTION

CHAPTER FOUR: EXPLORATORY PHASE: DATA ANALYSIS AND DESCRIPTION

Introduction

The current chapter presents a detailed analysis and interpretation of the data collected through multiple qualitative methods including textbook analysis, questionnaires, and an interview. The chapter begins by evaluating how phonological awareness skills are currently incorporated within the content and structure of Algerian middle school English textbooks used in grades 1-4. Descriptions reveal the types of phonological awareness activities included and any lack of progression in complexity or alignment with reading content. Questionnaire results provide insights into middle school learners' and teachers' perceptions concerning the role and utility of phonological awareness instruction. Interviews with inspectors offer additional perspectives from an administrative level.

4.1. Document Analysis

While this study focuses specifically on 1st and 4th year middle school pupils, exploring the English textbooks across all four middle school grade levels provides useful insights into the progression and continuity of phonological awareness skills instruction within the Algerian EFL curriculum. Analyzing the textbooks holistically reveals whether fundamental phonological abilities are introduced from the earliest stages and systematically built upon year after year, as well as whether skills align with reading content. Investigating all four texts allows for identifying overarching patterns and gaps that persist across grade levels. Any issues permeating the textbooks would significantly shape students' developmental trajectories related to decoding, pronunciation, and reading competence over their entire middle school English education. Thus, textbook analysis serves as a crucial foundation for interpreting questionnaire and test findings from the 1st and 4th year participants. Evaluation of the textbooks in grades one through four establishes the broader curricular context that these focal pupils are situated within.

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4.1.1. My Book of English Year One: Description and Analysis

My Book of English Year One (MBOE1) is designed for beginning learners aged 11 to 12 years old in their first exposure to English. The syllabus focal aim is teaching pupils communicative and linguistic skills. According to the book map, this course-book is communicative in the sense that it tries to teach pupils how to introduce themselves, ask and give information, etc. It is linguistic in terms of teaching pupils how to produce grammatical structures such as different tenses, personal pronouns, and demonstratives, etc. Additionally, it shows pupils how to pronounce words with different sounds such as /**I**/, /**ai**/, and /**ei**/. This book is thematic in terms of organization; a pre-sequence and five sequences are suggested: *Me and my Friends, Me and my Family, Me and my activities, Me and my school, and Me, my country and the World*. Each sequence is made up of the following sections**:** *I listen and do, I pronounce, My grammar tools, I practice, I read and do, I learn to integrate, I think and write, Now I can, I play, I enjoy, My Pictionary* (MBOE1) (Tamrabet, et al., 2016).

A) Description of Rubrics

The first rubric is *"I listen and do"*. It seeks to make the learners able to use language orally. That is to say, they become capable of interacting with others through creating social relations and getting things accomplished. In addition, they should be capable of understanding written and spoken language and interpreting it properly. Besides, they should be able to effectively express ideas and organize thoughts appropriately (ETGMS 1) (Tamrabet, et al., 2016, p.7).

The second rubric is *"I pronounce"*. It aims at helping the learner to develop accurate pronunciation and efficient oral skills, which are essential for the interpretive and oral productive competencies. Moreover, it endeavors to focus the learner's attention on the relationship between sounds and letters and to stress that what they hear does not always correspond to what they read, and

what they read is pronounced differently. Above all, teachers should also focus on the sounds that may not exist in Arabic, Tamazight, and/or in French. According to the teachers' guide, first year middle school textbook's great focus is on teaching pronunciation as an important feature of oral interaction and not teaching the phonetic system of English (ETGMS 1, pp.8-9).

The third rubric is *"My grammar tools."* It intends to make learners engaged in their brains and deduce the rules. However, some rules are given in order to teach learners reasoning and logic (ETGMS 1, p.9).

The fourth rubric is *"I practice."* This section is designed for the practice of the language presented in the previous teaching points. It aims at consolidating and reusing the acquired knowledge in meaningful contexts. The learners work individually, in pairs or in groups to do some contextualized tasks and activities. What matters most in these activities is the use of the language for the sake of real-life communication (ETGMS1, p.9).

The fifth rubric is *"I read and do."* It aims at arousing the learner love and pleasure for reading. It helps him to reflect on what, why and how he reads: a dialogue, a letter, an email, an ID, a poem, school regulations, and a touristic leaflet. Learners are required

to identify the para-textual elements (writer, text source, publication date, number of paragraphs, title), supra-textual elements (number of speakers, discourse type), and lexical elements (repeated words, words that belong to the same lexical field, words from the same family, names of places, personal names, dates, and other explicit temporal landmarks, or even implicit). A variety of reading techniques is applied in this section such as skimming, scanning, and reading for gist. At this stage, the learners should be independent. They should be given the opportunity to read silently and interact with the text through meaningful tasks and activities. This section includes three phases. In the pre-reading phase, learners are introduced to the key lexical items that are necessary

to the understanding of the reading passage through pictures, guessing games, videos, mind maps, graphic organizer, word association technique. In the during-reading phase, learners read silently and interact with the text through meaningful tasks and activities related to their environment and interest. In the post-reading phase, learners are initiated to a compilation of speaking or written asks related to the studied topic, jigsaw reading, and short summary. Actually, there is no focus on training first year middle school pupils' rhythm and intonation except when acting out a dialogue (ETGMS1, pp.10-11).

The sixth rubric is *"I learn to integrate."* This section is devoted to the reinvestment of the previous learning in terms of knowledge, skills and attitudes. The teacher trains his learners on how to integrate. They should mobilize their resources and re-invest them in a problem-solving situation through group work (ETGMS1, p.11).

The seventh rubric is *"I think and write."* It teaches learners how they should use punctuation and capitalization correctly. In addition, how they should use correct syntax (subject, verb, object, tenses). At the end, learners will be capable of writing an outline and organizing learners' ideas clearly and logically. More importantly, they are expected to produce short length coherent paragraphs (ETGMS1, pp.12-13).

The eighth rubric is *"I play."* Play is an ideal relaxed and fun approach to learning. It encourages creativity and helps children to learn social skills. Creative games enable learners to solve problems and think critically. It is worth mentioning that while playing, learners are unconsciously reinvesting the knowledge acquired in the sequence (ETGMS1, p.14).

The ninth rubric is *"I enjoy."* The material under this section is a source of pleasure for learners. It brings them joy and happiness and develops their imagination. Thanks to this teaching point, learners may not be overwhelmed by English lessons. Learning occurs in a relaxing and motivating atmosphere

through reading or singing (ETGMS1, p.14).

The tenth rubric is *"My Pictionary."* This section is meant to recycle the acquired vocabulary through a ludic aspect. 'Pictionary' can be used as a game to revise vocabulary using meaningful tasks and activities. For example, learners can be shown a picture and asked to guess the word meaning. Besides, learners can be divided into small groups and be given words for each group, and then, they can be asked to draw them. Learners also can take a card and then draw it and the other team members have to guess what it is (ETGMS1, p.15).

B) Description of Sequences

The pre-sequence, as an introductory unit, is called *"We have English now!"* It contains an activity in which learners look at twenty-six small pictures and say their corresponding names in English. The names within pictures are alphabetically enclosed in a table and are organized from right to left. In here, the learners are taught the English alphabet via 'phoneme isolation'. That is to say, they are requested to recognize the individual sounds in words such as /**a**/, /**a**pple/ (MBOE1, p.24). Then, follow two other activities (a, b) in which learners first, put vowels and consonants in the right basket. This refers to as "phoneme categorization." After that, learners are asked to spell their names (MBOE1, p.25).

The first sequence is called *"Me and my Friends."* Under the rubric *"I pronounce"*, a task is delivered to learners where they have to listen and repeat the following passage:

*Pl**a**y and s**a**y: **I** am learning when **I** pl**a**y. With my teacher, m**y** leader tod**a**y. Sit and l**i**sten to the story of the pl**a**y, A great leader, you m**a**y become one d**a**y.*

(MBOE1, p.37).

The aim of this task is to make learners aware of the different phonemes /**ei**/, /**ai**/, and /**i**/. In the second task, learners are required to pick up the odd

phonemes. This means they are expected to recognize the word with the odd sound in a sequence of four words like d**ay**, pl**ay**, g**a**me, and classroom. In the third task, learners are asked to categorize phonemes through putting words into the right list according to sounds similarity (MBOE 1, pp-37-38).

In the section, *"I read and do",* there seems to be a connection between the learners gained phonological knowledge and the reading task. Learners are given two passages in which the taught phonemes in the rubric *"I pronounce"* are present (MBOE1).

Hello, m**y** n**a**me **i**s Razane.

Iam 11 years old. I am from Algeria and I l**i**ve **i**n Batna.

Iam a pup**i**l at Ben Boulaid M**i**ddle School.**- Passage A-**

How about you?

H**i**, **I** am Susan. **I** am 13.

I am from Gr**ea**t Br**i**tain and **I** l**i**ve **i**n London.**-Passage B-**

(MBOE1, p.41).

In the section *"I enjoy"*, learners are provided with a poem that contains a variety of rhyming words like: You are my **sun**, I am your **fun**, All at **schoo**l, We are **cool** (MBOE1, p.46). It can be noticed that the authors of the book present texts which include some phonological devices such as alliteration and rhyming. However, there is nothing that can draw learners' attention to these phonological techniques because this nursery rhyme is not followed by any tasks, which help learners to identify rhyming words and alliterations.

The second sequence is called *"Me and my Family"*. In the rubric *"I pronounce"*, the learners are initiated to new phonemes: **/ð/, /θ/, /e/**, and **/i:/** via listening and repeating

a short passage**.** Then, learners are requested to listen and match words according to the pronunciation of /ð/, /θ/ sounds (phoneme matching) (MBOE1, p.54). Other types of phonological awareness tasks are utilized in the rubric *"I play"*. In the first task, learners are required to blend phonemes into words (phoneme blending)**.** For example, **/s/, /r/, /n/, /e/, /u/** (***nurse***). Nonetheless, in the second task, learners are appealed to supply the missing phonemes to get the members of the family such as in **/f/**…**/t/**…/**e**/… (phoneme deletion) (MBOE1, p.65).

The third sequence is called *"Me and my daily activities"*. The section *"I pronounce"* includes a task that allows learners to isolate and identify the various phonemes. They are asked to listen and repeat the sounds along with the words, which contain them such as /ə/, **a**way! Mister tiger; **/s/ s**it down, **s**weet horse (MBOE1, p.77). In the following task, learners are required to recognize the sounds (written with different color) in words and to match them with their appropriate phonetic transcription such as lov**es /z/, /Iz/, /s/** and breakf**a**st /ə/ (MBOE1, p.78).

In the section *"I enjoy"*, pupils are introduced to another phonological skill that is alliteration. The pupils are asked to read the poem "Birds" aloud in the classroom. This poem has a number of alliterations such as *tells them, time, **c**lock is the **c**ock **b**eautiful are all **b**irds*. In another task (My ABC's), the pupils are requested to isolate individual sounds such as /A/…animal. /B/…..bear (phoneme isolation) (MBOE1, pp.94-95). Again, it should be emphasized that the book's designers rely on listening and rehearsing skills. There is no attempt to focus learners' attention on phonological skills like rhyming, alliteration, segmentation, and so on.

The fourth sequence is called *"Me and my school"*. New phonemes are introduced to the learners, such as **/ʤ/, /g/, /j/ /ʒ/, /ŋ/.** Correspondingly, their phonemic awareness skills are reinforced through two tasks. In the first task, the pupils are asked to listen and repeat words, which contain the following sounds: **/ʤ/, /g/, /j/ /ʒ/, /ŋ/** (phoneme identity) (110). In the second task, pupils are asked

to listen and match words according to the pronunciation of /ʒ/, /dʒ/, /j/, /g/ (phoneme identity) (MBOE 1, pp.110-112).

The final sequence is called "*Me, my country and the World.*" Pupils are also initiated to new phonemes such as /ɔ/, /ɔ:/ ,/ŋ/, /aʊ/ through two tasks. On both tasks, **p**upils are asked to put words in the right column according to the pronunciation of: /ŋ/, /ɔ/, /ɔ:/,/aʊ/ sounds (MBOE1, pp.136-137).

It can be concluded that learners begin with acquiring easier phonemes and gradually moving to more difficult ones. As for phonological awareness tasks, it can be stated that the used tasks are the same as the ones in the previous sections. Phoneme isolation, matching, and categorization tend to be the most dominant activities in the whole book. In the same vein, texts appear to be more complex than the former ones.

4.1.2. My Book of English Year Two: Description and Analysis

My Book of English Year Two (MBOE2) is designed for second grade learners of English. It seeks to consolidate the previous gained knowledge in first year's book. The tasks included in this book are learner-centered according to classroom situations. They intend to cater for learners' styles and multiple intelligences. Pupils are encouraged to adapt themselves with the types of learning and confront learning situations through their personal endowments (ETGMS 2) (Tamrabet, et al., 2017).

MBOE 2 contains four sequences rather than five: *Me, my Friends, and my Family, Me and my shopping, Me and my health, and Me and my travels. Each sequence consists of the following rubrics: I listen and do, My pronunciation tools, I pronounce, My grammar tools, I practice, I read and do, I learn to integrate, I think and write, Now I can, I play and enjoy, I read for pleasure* (MBOE2) (Tamrabet, et al., 2017).

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A) Description of Rubrics

The first rubric is *"I listen and do".* The listening tasks proposed to learners in this rubric involve both receptive and productive skills, which makes listening a purposeful act having its "raison d'être" in carrying out tasks that require learners to integrate all communicative skills other than just listening and speaking. Some listening tasks particularly encourage the learners to take notes while listening as this is a study skill they will need throughout their school life (ETGMS 2, p.9).

The second rubric is *"I pronounce".* It insists on teaching vowel and consonant discrimination. Simplified articulatory diagrams of English sounds are used in this section. This rubric aims at making the learners articulate the sounds as correctly as possible and, at the same time, memorize and internalize their correct pronunciation, which they will need in further stages as the sequence evolves and develops. This rubric contains two sections. *"My pronunciation tools"* section in which pupils are introduced to different new sounds. It functions as an introductory phase for the next section (I pronounce). Indeed, this section is more about teaching learners how to produce sounds rather than assessing pupils' pronunciation capacities. *"I pronounce"* section in which pupils are exposed to different activities where they repeat and memorize the targeted sounds. Then, learners are invited to identify and recognize the sounds they are learning through the use of minimal pairs whenever this is possible. Minimal pairs are a good teaching device to help learners discriminate similar sounds that might prove to be difficult for them to understand or (re)produce. Tongue twisters are another teaching device used in this section. Nursery rhymes and extracts from songs or poems in which the targeted sounds are redundant are more "meaningful" and infinitely preferable. The reading texts included in the *"I pronounce"* section are meant to be read aloud by learners in class while the teacher monitors their pronunciation. Although the focus in these texts is on sounds, this does not mean that comprehension is to be neglected. New or

difficult vocabulary should be explained to facilitate comprehension. To sum up, *"My Pronunciation Tools"* and the *"I pronounce"* sections are just "pedagogical stopovers" on the long, ongoing "route" of the teaching/learning process whereby the targeted new sounds are made explicitly clear to the learner (ETGMS 2, pp.9-11).

The third rubric is *"My grammar tools"* These tools are meant to be exploited as learning aids whose main pedagogical function is to succinctly sum up the main tenses, structures and structural lexis dealt with in each sequence in the form of "rules" or, sometimes, broad generalizations. Another function of these tools is to draw the learners' attention to special difficulties and exceptional uses related to these language forms.

Learners, however, are encouraged to deduce rules and make generalizations through analysis and comparison of relevant examples (ETGMS 2, p.12).

The fourth rubric is *"I practice."* This section is meant for making learners immersing in practical activities. In other words, learners _ especially the tactile and the kinesthetic ones_ need to keep hands on their subject matter. That is to say, they should feel the things and understand them each time an application immediately follows from the theory. The learning that comes from practice as an application to theory is likely to last longer (ETGMS 2, pp.12-13).

The fifth rubric is *"I read and do."* This section has been designed according to an integrative teaching/learning approach whereby many of the learning skills are combined in the reading tasks, and work together towards achieving comprehension with its multi- faceted aspects. It aims at teaching learners how to infer complex meanings since it brings the learners to progressively probe the reading materials in order to find out the hidden or implied meanings/information they are looking for. This requires competences working at a much higher cognitive level than mere comprehension; it goes

further beyond to reach the "analysis" level. For this reason, a variety of relevant tasks, stimulating questions, or referential study questions which enable learners to think, read, and analyze is suggested in this section (ETGMS 2, pp.13-14).

The sixth rubric is *"I learn to integrate."* The learners are involved in selecting and classifying the resources, the skills and the values /attitudes to be instilled in the process of learning (ETGMS 2, p.14).

The seventh rubric is *"I think and write."* This section seeks for making learners aware of the distinction between writing to learn (other things, like structures, spelling and vocabulary) and learning to write. Therefore, this section instructs learners the conventions of written English such as capitals, punctuation, and indentation. Besides, it aims at making learners familiar with all the stages of writing such as: brainstorming, outlining, drafting, re-drafting, editing, and publishing. Above all, it attempts to make learners capable of assessing their written work with the help of their teachers. Here comes the role of inquisitive learning through practical writing based on simplistic form, clear cut messages and straightforward conveyance of expression. In this respect, writing becomes communicative where learners start to think about what they write in real life writing (e-mails, lists, notes, covering letters, reports, assignments, paragraphs, notes, blogs, forums and websites). All of these writing tasks have a communicative purpose and a target audience (ETGMS 2, pp 14-15).

The eighth rubric is *"now, I can."* This section is entirely devoted to make learners feel free expressing their own involvement as self-assessors and foster their metacognition skills through a suggested appropriate rubric. Furthermore, they will be able to make better decisions about the ways and means to achieve what they are expected to learn through what they can do with the chunks of language. In fact, the idea of revealing what learners can or cannot do is a good asset for teachers to assess and evaluate their own teaching and adjust what is inappropriate and ineffective. In this respect, the "*now, I can" rubric* is an

effective formative assessment tool for both teachers and learners (ETGMS 2, p.16).

The ninth rubric is *"I play and enjoy."* This part is the fillip through which learners discharge some of their burdens to turn as light and full of vigor to enter the next sequence with too much delight. Enjoying is part of learning and the more joyous learners turn to be, the more creative and productive they will be. This rubric encourages creativity, helps children to learn social skills and to reinvest the knowledge acquired in the sequence (ETGMS 2, p.17).

The tenth rubric is *"I read for pleasure."* This section aims at cultivating reading as a habit via training young learners to be good readers. Indeed, the training habit should start right from an early start with assigning learners some reading tasks to accustom them to reading. It is important then to train learners as amateur readers to keep their notes organized and well-structured on their reading cards so that they can easily find or refer to them later. In addition, they may also use a notebook or set up folders on their computers – keep their notes in good order. This will inevitably make their way into their everyday vocabulary and adds to the reading habits repertoire. Hence, with time, reading fluency will grow and the more they become acquainted with reading, the more they get rid of their stammering habits. All in all, reading for pleasure will cultivate in learners the tranquility of mind, so when they read an appealing text that meets their own satisfaction; this will bring to them a kind of peace (ETGMS 2, pp.18-21).

B) Description of Sequences

The first sequence is called "Me, my Friends, and my Family." Under the rubric *"My pronunciation tools"*, some complex phonetic skills are initiated in MBOE2, as an illustration: the pronunciation of the weak and strong forms of /**can**/ and /**can't**/ (MBOE2, p.20). Under the rubric *"I pronounce"*, learners are asked to listen and identify the various words according to the pronunciation of **"s"** ending (**/iz/, /s/,** and **/z/**) such as in task 1 (phoneme identity). They are also

assessed to rectify and internalize the correct pronunciation of the newly acquired phonemes such as in task 2 (MBOE2, p.22). In other tasks, learners are requested to categorize the silent letters in words such as /**h**/ and /**d**/ such as in task 6 and 8 (phoneme categorization) (MBOE2, p.23).

In the rubrics, *"I read and do"* and *"I read for pleasure",* learners are presented with more complex texts compared to their first year. They are mainly asked to fill some bibliographical and reading notes such as the title, the type of text, the author's name, and the date of publication. Nonetheless, there seems to be no connection between the acquired phonological skills and the reading passages (MBOE2).

The second sequence is called "*Me and my shopping*". The learners are initiated to the pronunciation of clear */l/* and dark */l/* and the silent letter/r/ in *"My pronunciation tools"* rubric. Under the rubric *"I pronounce"*, they are provided with some activities in which they are expected to identify the correct pronunciation of the previously learnt phonemes (phoneme identity). Learners are then asked to listen and write (p) for the pronounced /r/ or /s/ for silenced /r/ (phoneme isolation) (MBOE2, pp.53-54). In the section *"I play and enjoy"*, learners are given a nursery rhyme "Let's Go Shopping." An array of phonological devices is used in this song. For instance, alliteration in *(fast food)*, assonance in *(and apple)* and rhyme in *(fry-pie)*, *(fried- side)*. In addition, learners can practice "phoneme isolation" at the end of the song via pronouncing single phonemes and then linking them to words such as *A-apple- B-banana- C-cantaloupe- D-double coupons- E-eggs-F-fish-G-grapes-H-hamburger* (MBOE2, p.73).

The third sequence is called *"Me and my health."* Under the rubric *"My pronunciation tools",* learners are taught the pronunciation of the weak and strong forms of /**must/, /mustn't/, /should/, /shouldn't**/ as well as they are shown how to distinguish between /ʧ/, /ʃ/ sounds (MBOE2, pp.82-83). They are then assessed using minimal pairs and tongue twists such as in tasks 1, 3, 9 and

11. After that, some practice is suggested to make learners capable of retaining the correct pronunciation of sounds (MBOE2, pp.84-85). Another phonological awareness skill is utilized in task 12 that is sentence identification (MBOE2, p.92). In the rubric *"I play and enjoy"*, learners are presented with a rhyming song and phoneme blending task successively in tasks 2 and 3 (MBOE2, p.104).

As for reading sections, it can be remarked that some infrequent words are initiated to learners such as "microorganisms" and "food borne." Such words are age inappropriate for children who have just started learning English as a foreign language. Moreover, they are difficult to pronounce especially for schoolchildren with no strong phonological awareness (MBOE2).

The fourth sequence is called *"Me and my travels."* Learners are provided with a compilation of minimal pairs in a dialogue. Then, they are asked to cross out the odd words (MBOE2, p.109). This task strengthens learners' phoneme categorization skills. Next, pupils are evaluated on the contracted form of **/will/** (phoneme identity). Subsequently, learners are made acquainted with the various allomorphs of **/ed/** (MBOE2, pp.118-119). Afterwards, they are reintroduced to the voiced dental fricative **/ð/**and the voiceless dental fricative **/θ/** (MBOE2, p.120).

In brief, the phonological awareness activities are very void in MBOE2. Most tasks used in this textbook aim at enhancing learners' listening, speaking, writing, and reading skills but not phonological awareness skills. The book focuses much more on phonetics at the expense of phonology as most of its activities teach pupils how to produce phonemes, but not how to organize and pattern them. Above all, there appears to be no connection between the acquired phonetic and phonological skills and the reading passages. It is quite important to stress on phonological devices in texts so that to foster children's phonological awareness skills.

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4.1.3. My Book of English Year Three: Description and Analysis

My Book of English Year Three is destined to learners whose cognitive capacities are to a certain extent more developed. The material covered in this guide is more focused on competency-based activities where learners are supposed to manipulate the language through the four skills and their integration (ETGMS 3) (Tamrabet, et al., 2017). It consists of four sequences: *Me, my abilities, my interests and my personality, Me and my lifestyles, Me and the scientific world, Me and my environment*. Each sequence consists of the following rubrics: *I listen and do, I pronounce, My grammar tools, I practice, I read and do, I learn to integrate, I think and write, Now I can, I play and enjoy, I read for pleasure* (MBOE3) (Tamrabet, et al., 2017).

A) Description of Rubrics

It should be mentioned that there are no huge discrepancies between MBOE2 and MBOE3 at the level of rubrics or phonological awareness activities.

B) Description of Sequences

The first sequence is called *"Me, my abilities, my interests and my personality."* Learners, this time, are initiated to the pronunciation of the vowel sounds: / ə/, /æ/,/ɑː/. Further, they are instructed how to pronounce the weak and strong forms of *"can" and "can't"*. Moreover, they are shown the distinct pronunciations of **"s"** ending: /**iz/, /s/** and **/z/** (MBOE3, pp.17-20). The newly acquired phonemes are then assessed through task 1, 7, and 9 in *"I pronounce"* rubric. Learners are asked to recognize the common sound in different words (phoneme identity). Under the subheading *"I read and do",* learners tackle multiplex texts. In section *"I play and enjoy"*, learners have a rhyming song "I can" written by Ron Brown (MBOE3, p.42). It comprises sound devices such as alliteration (**dance-down)**, rhyme (**nose- toes)**, and assonance. However, it should be emphasized that the reading texts provided in this sequence are age inappropriate because they contain some difficult words; especially for children

who are in their beginning stages of acquiring English as a foreign language. For instance, in a text titled "Save the Imzad: The Last Four Imzad Players", there are some words which are difficult to decode such as "ancestral" and "perseverance" (MBOE3, p.30).

The second sequence is called "*Me and my life styles*". Under the rubric "*I listen and do*", a word awareness task is proposed to learners in which they are asked to listen to an interview which contains a number of minimal pairs. Then, they are requested to circle the words they hear (MBOE3, p.51). In the rubric "*My pronunciation tools*", learners are taught the vowel sounds /**u:/, /ʊ /, /ɜ:/ /æ/, /ʌ/,**and /ə/. Afterwards, they are initiated to silent letters /**w/** and /**t/** (MBOE3, pp.55-59). Next, there is a number of phoneme isolation tasks in which learners are expected to recognize the learned phonemes in different words such as task 3,5,7,9, and 11 (MBOE3, p.60) (For more details see Table……).

The third sequence is called "*Me and the scientific world*". Pupils learn how to distinguish between the consonant sounds: /**f/** and /**v/** (MBOE3, p.91). Afterwards, they are evaluated through phoneme identity and isolation tasks in "*I pronounce*" rubric (MBOE3, pp.91-92).

Under the rubric, "*I read and do*", learners are always required to tackle reading comprehension tasks rather than phonological awareness tasks. The latter are nearly absent in this rubric and even if there is a task that triggers learners phonological awareness skills, it is challenging. Learners are provided with texts, which contain baffling phonemes to pronounce such as /tɪʃn/ in mathematician, /tʃ/ in picture, /**k/** in optics. Additionally, they are exposed to other texts and assignments that include low frequency words such as *scalpels, scissors, surgeon, stitches, frieze, roundels,* and *cymbalist* (MBOE3, pp.99-110). This confirms the inconsistency between the few phonological awareness tasks that exist in this textbook and the reading sections. Moreover, it indicates the absence of English phonics in Algerian middle school textbooks.

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The fourth sequence is called "*Me and my environment.*" The schoolers are instructed how to differentiate between the consonant sounds /ʒ/ and **/dʒ/** via minimal pairs. Besides, they are made acquainted with silent letters: **/k/, /w/, /h/,** and **/t/** (MBOE3, pp.124-125). Under the rubric *"I pronounce"*, phoneme identity, phoneme isolation, and rhyming/alliteration activities are used to assess pupils' knowledge on these phonemes (MBOE3, pp.127-128). Under the rubric *"I play and enjoy"*, pupils are asked to sing a song titled "What a Wonderful World" written by Louis Armstrong. This song contains a number of rhyming words such as **"white"**, **"night"** and alliterations such as **"I see skies"**. In another task, pupils are given a grid of isolated phonemes and asked to blend them to compose words (MBOE3, p.145).

The reading texts in this sequence can be described as phonologically and semantically hard to access for beginning school children who just start learning English as a foreign language. These texts contain some difficult words such as *cheetah, Acinonyx jubatus hecki, muzzle, elusive* (In text: Search of the Elusive Saharan Cheetah) (MBOE3, p.140). Furthermore, the phonological awareness activities included in this section are quite similar to those in the previous units.

4.1.4. My Book of English Year Four: Description and Analysis

My Book of English Year Four addresses English as the two-way process of communication: getting to know others through various aspects of their life, and talking about oneself. The course-book tasks are aligned to international standards in order to prepare learners to participate with success in international exams such as *PISA* and *TIMSS* (ETGMS 4) (Tamrabet, et al., 2019). It includes three sequences: *Me, universal landmarks and outstanding figures in history, literature and arts; Me, my personality and life experiences; Me, my community and citizenship*. Each sequence consists of the following rubrics: *I listen and do, I pronounce, My grammar tools, I practice, I read and do, I learn to integrate, I think and write, Now I can, I play and enjoy, I read for pleasure, I get ready for my BEM exam* (MBOE4) (Tamrabet, et al., 2019).

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According to the Teacher's Guide Year Four, there seems to be no dissimilarities between the goals set for learners in MBOE2, MBOE3, and MBOE4 (ETGMS 4) (Tamrabet, et al., 2019). Therefore, the description of MBOE4 will stress on the new sections or the slight distinctions that exist in the book.

A) Description of Rubrics

In book 4, the first section *"I listen and do"* is primarily meant for the identification and the practice of the target structure(s), the pronunciation of different sounds and lexical items in meaningful contexts of use. This rubric calls for writing as an extension to listening. In this 4th year course-book, the focus has slightly shifted from speaking to writing. Due to the high school entrance examination (the BEM Exam), which is undertaken by learners in an exclusively written form, the course-book reserves a more significant function for writing (ETGMS 4, p.7).

The rubric *"I pronounce",* introduces consonant clusters, diphthongs and tri- phthongs. It intends to make learners capable of distinguishing consonants and vowels via the use of a variety of phonological devices such as minimal pairs, nursery rhymes, and tongue twisters. The reading texts are designed to be read aloud by learners in class while the teacher monitors their pronunciation. The phonetic component in Book 4 is more like an ongoing process that repeats itself throughout the book – within each sequence, and from one sequence to another – aiming to hopefully achieve two objectives: take in charge targeted new sounds and recycle previous ones (ETGMS 4, pp.8-10).

Under the subheading *"I read and do",* referential study questions have been extended to inferential ones. In addition, this rubric aims at making learners familiarized with the different types of texts like descriptive, narrative, prescriptive, and argumentative texts. "*I get ready for my BEM exam*" is a new section included in the MBOE4. It contains tests selected to cover the exit profile

of the curriculum. Some of the test items have been chosen according to international standards and they cover the linguistic and communicative objectives of the syllabus (ETGMS 4, pp.11-14).

B) Description of Sequences

The first sequence is called "*Me, universal landmarks and outstanding figures in history, literature and arts*". The learners approach the English diphthongs**/ɪə/, /ʊə/, /eɪ/, /əʊ/, /ɔɪ//, /eə/, /aɪ/, /aʊ/.** Moreover, they are initiated to consonant clusters such as **/pr/, /br/, /tr/, /dr/, /nt/, /nd/, /ft/,** and **/kt/** (initial and final consonant clusters) (MBOE4, pp.26-28).Under the rubric "*I pronounce*", learners are expected to find out the intruder diphthong in each list such as in **/eɪ/:** *take-stay-make-tray-<u>try</u>-sailor* (task1) (MBOE4, 2019, p.29). This is referred to as phonological categorization. Moreover, they are implored to identify the correct pronunciation of diphthongs and consonant clusters after listening to a number of sentences in task 4, 8, and 12 (phoneme identity) (MBOE4, pp.29-30).

There are always self-assessment tasks where learners are asked to repeat and check the pronunciation of the learned phonemes, either individually or with a partner (task 5, 6 and 9) (MBOE4, pp.29-30). The same thing can be said about consonant clusters tasks. This section also comprises a phoneme isolation task in which learners should identify the position ("initial" or "final") of each consonant cluster (task 13) (MBOE4, p.30). Another phonological awareness task that is used in this sequence is phoneme addition. Learners are asked to add the missing phonemes in each word between brackets (task16) MBOE4, p.30).

In short, it can be said that there is no change at the level of phonological awareness activities between MBOE 4 and the other three manuals. Since the same tasks are utilized in this book such as phoneme categorization, isolation and identification. The reading tasks herein focus on teaching reading comprehension as distinguished from teaching word recognition and reading accuracy such as in task 1 and 4 (MBOE4, pp.40-41). Additionally, some excerpts are beyond

learners' reading level as for example Shakespeare's poem "This Royal Throne of Kings". Under the rubric **"*I get ready for my BEM exam*"**, learners are trained to recognize the different realizations of the phoneme **/ed/ (/id/, /d /** and **/t/)** (MBOE4, p.52).

The second sequence is called "*Me, my personality and life experiences.*" The learners are taught English triphthongs **/aɪə/,/eɪə/, /aʊ̯ ə /, /aɪ̯ ə /, /ɔɪ̯ ə /.** Furthermore, they practice the pronunciation of the auxiliaries **/have/, /has/.** On top of that learners are shown the various pronunciations of /**ed/** endings (MBOE4, pp.67-69). Under the subheading "*I pronounce*", learners are requested to identify the correct pronunciation of the triphthongs (/**aɪə/,/eɪə/, /aʊ̯ ə /, /aɪ̯ ə /, /ɔɪ̯ ə /**) and **/ed/** endings such as in task 1, 4, 7, 10, and 18 (MBOE4, pp.70-72). In addition, they are asked to recognize the intruder sound in task 14 (phoneme categorization) (MBOE4, p.72).

All these tasks seek to foster EFL learners' phoneme categorization, identification, and isolation skills while some tasks seek to fix the correct forms in learners minds such as task 2, 5, 6, 11, and 12 (MBOE4, pp.70-71). Thus, it can concluded that no new phonological awareness activities are included in herein.

As for reading sections, there seems to be more complexity at the level of texts. Indeed, these texts are designed for the sake of preparing students for the BEM exam. Consequently, they are always accompanied with a variety of tasks that aim at enhancing learners' reading comprehension, lexical, and grammatical skills but not decoding and fluency skills. For instance, in task 5, pupils are given a long text titled "Inside the Battle of Algiers: Memoir of a Woman Freedom Fighter." They are asked to read the text silently and answer 25 questions. All the questions involve pupils' comprehension skills except question number 20, which is grammatical (MBOE4, p.82).

The third sequence is called "*Me, my community and citizenship.*" This

time, learners are engaged with silent letters: */k/, /w/, /l/, /b/, /n/*. Additionally, they are reintroduced to the different pronunciations of */s/*endings (MBOE4, pp.108- 109).Learners are asked to spot the odd word such as in task 1 and 10 (phoneme categorization) (MBOE4, p.110). Moreover, they are asked to isolate the correct pronunciations of /s/ endings such as in task 12 (MBOE4, p.111). Other activities like activity 6 and 8 aim at consolidating the correct pronunciation of phonemes. In these activities, pupils are requested to read aloud the sentences and check their pronunciation either with a partner or with a group of partners (MBOE4, pp.110-111).

The reading passages along with the exercises included in the rubrics: *I read and do, I read for pleasure, I get ready for my BEM exam* are but preparatory tests (MBOE4, pp.118-128). They always simulate middle school final exam. Therefore, phonological awareness skills are discarded as pupils are required to write and not read in BEM exam. That is to say, the designed tasks focus solely on boosting students' grammar, vocabulary, and writing abilities.

After describing the different tasks related to reading and phonological awareness tasks, the tables below recapitulate the tasks in tables, according to each book.

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Table 4.1. The Distribution of Phonological Awareness Tasks in My Book of English Year One

Sequence	Rubric	The Type of Phonological Awareness Task	Description
We have English now!		Phoneme Isolation	**Task (I listen and repeat)** Pupils look at twenty-six small pictures and say their corresponding names in English. The names within pictures are alphabetically enclosed in a table and are organized from right to left. In here, the pupils are requested to recognize the individual sounds in words such as /**a**/, /**a**pple/. (p.24)
		Phoneme Categorization	**Task (a)** Pupils are requested to distinguish vowels and consonants and put them in the right basket **Task (b)** Pupils are asked to spell their names. (p.25)
Me and my Friends	*I pronounce*	Phoneme Categorization	Pupils are given three tasks to make them aware of the difference between the following phonemes /**ei**/, /**ai**/, and /**i**/ **Task 1:** Pupils are requested to listen and repeat the following passage: *Play and say: **I** am learning when **I** play………* (p.37) **Task 2:** Pupils are required to listen and cross the odd word out. This means they are expected to recognize the word with the odd sound in a sequence of four words like d**ay**, pl**ay**, g**a**me, and classroom. (p.37) **Task 3:** Pupils are asked to categorize phonemes through putting words into the right list according to sounds similarity. (p.38)
Me and my Friends	*I enjoy*	Rhyming and Alliteration	**Task (I enjoy)** Pupils are asked to read a poem that contains a variety of rhyming words like: You are my **sun**, I am your **fun**, All at **schoo**l, We are **cool.** (p.46)
Me and my Family	*I pronounce*	Phoneme Identity/ Matching	**Task 1:** Pupils are initiated to new phonemes: /**ð/, /θ/, /e/,** and /**i:/** via listening and repeating a short passage**.** K**ee**p n**ea**t at your school…….Get **th**e pen

			and **th**ink…… (p.54) **Task 2:** Pupils are requested to listen and match words according to the pronunciation of /ð/, /θ/ sounds. (p.54) **Task 4:** Pupils are asked to classify words according to the pronunciation of **/e/** and **/i:/** sounds. (p.55)
	I play	Phoneme Blending	**Task 1:** Pupils are required to blend phonemes into words, for example, **/s/, /r/, /n/, /e/, /u/** (*nurse*). (p.65)
		Phoneme Deletion	**Task 2:** Pupils are appealed to supply the missing phonemes to get the members of the family such as in f…t…e….. (p.65)
Me and my daily activities	*I pronounce*	Phoneme Isolation	**Task 1:** Pupils are asked to listen and repeat the sounds along with the words, which contain them such as /ə/, **a**way! Mister tiger; **/s/ s**it down, **s**weet horse. (p.77)
		Phoneme Identity/ Matching	**Task 2:** Pupils are requested to recognize the sounds (written with different color) in words and to match them with their appropriate phonetic transcription such as lov**es /z/,/Iz/, /s/** and breakf**a**st /ə/. (p.78)
	I enjoy	Rhyming and Alliteration	**Task (I enjoy)**: Pupils are introduced to alliteration through reading aloud a poem called "Birds". (p.94)
	My ABC's	Phoneme Isolation	**Task (My ABC's)** Pupils are requested to recognize individual sounds such as /A/…..animal. /B/…..bear. (p.95)
Me and my school	*I pronounce*	Phoneme Identity/ Matching	**Task 1:** Pupils are asked to listen and repeat words that contain the following sounds: **/dʒ/, /g/, /j/ /ʒ/, /ŋ/.** (p.110)
		Phoneme Identity/ Matching	**Task 1:** Pupils are asked to listen and match words according to the pronunciation of /ʒ/, **/dʒ/, /j/, /g/.** (p.112)
Me, my country and the World	*I listen and I Do*	Phoneme Identity/ Matching	**Task 7:** Pupils are asked to listen and match words according to the pronunciation of **/an/,/ian/,/ese/,/ish/,/ch/.** (p.134)
	I pronounce	Phoneme Identity/ Matching	**Task 1:** Pupils are asked to listen and put words in the right column according to the following sounds: /ŋ/, /ɔ/, /ɔ: /, /aʊ/. (p.135) **Task 2:** Pupils are requested to read the poem and put the underlined words in the right column according to the sounds: /ŋ/, /ɔ/, /ɔ: /, /aʊ/. (p.136)

Table 4.2. The Distribution of Phonological Awareness Tasks in My Book of English Year Two

Sequence	Rubric	The Type of Phonological Awareness Task	Description
Me, my Friends, and my Family	*My pronunciation tools*	Phoneme Identity/ Matching	**Task 1-2:** Pupils are requested to practice the pronunciation of "s" endings, the pronunciation of weak and strong forms of /**can**/ and /**can't**/. (p.20) **Task 2-3:** Pupils are asked to listen and repeat the pronunciation of silent letters /**h**/ and/**d**/. (p.21)
	I pronounce	Phoneme Identity/ Matching	**Task 1:** Learners are asked to listen and identify the various words according to the pronunciation of **"s"** ending (/**iz/,/s/** and /**z/**)/. (p.22)
		Phoneme Categorization	**Task 6:** Learners are asked to listen and recognize the words in which the silent letter **"h"** is not pronounced. (p.23) **Task 8:** Learners are requested to listen and recognize the words in which the silent letter **"d"** is not pronounced. (p.23)

Me and my shopping	*My pronunciation tools*	Phoneme Identity/ Matching	**Task 1:** Pupils are requested to practice the pronunciation of the clear **/l/** and dark /ɫ/. Otherwise speaking, pupils are taught to identify these phonemes. (p.51) **Task 2:** Pupils are required to practice the pronunciation of the **/r/** sound. (p.52)
	I pronounce	Phoneme Identity/ Matching	**Task 1:** Pupils are asked to listen and tick the correct pronunciation of the **/l/** sound. (p.53) **Task 3:** Pupils are required to listen and write the corresponding phonetic symbol **/l/** and dark /ɫ/**. (p.53) **Task 5:** Pupils are asked to listen and tick the right pronunciation of the **/r/** sound. (p.54)
		Phoneme Isolation	**Task 8:** Pupils are requested to listen and write (p) for the pronounced **/r/** or **/s/** for silenced **/r/** under each **/r/** in bold type. (p.54)

	I play and enjoy	Rhyming and Alliteration	**Task (Let's sing a song):** Pupils are asked to sing a song that contains an array of phonological devices is used in this poem. For instance, alliteration in *(fast food)*, assonance in *(and apple)* and rhyme in *(fry-pie)*, *(fried- side)*. (p.73)
		Phoneme Isolation	Learners also can practice "phoneme isolation" at the end of the song via pronouncing single phonemes and then linking them to words like: *A-**a**pple- **B**-**b**anana- **C**-**c**antaloupe- **D**-double coupons- **E**-**e**ggs-**F**-**f**ish-**G**-**g**rapes-**H**-**h**amburger.* (p.73)
Me and my health	*My pronunciation tools*	Phoneme Identity/ Matching	**Task 1-2:** Pupils are requested to practice the pronunciation of **/must/** and**/mustn't/**, **/should/** and **/shouldn't/**.In other words, pupils are taught to identify these phonemes. (p.82) **Task 3-4:** Pupils are asked to practice the pronunciation of the **/ch/** and **/sh/** sounds. (p.83)

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	I pronounce	Phoneme Identity/ Matching	**Task 1:** Pupils are asked to listen and tick the correct pronunciation of **/must/**. (p.84) **Task 3:** Pupils are required to listen and tick the correct pronunciation of **/should/** and **/shouldn't/**. (p.84) **Task 9:** Pupils are asked to listen and tick the right pronunciation of the **/ch/** and **/sh/** sounds. (p.85)
		Phoneme Isolation	**Task 11:** Pupils are asked to listen and write the phonetic symbol (/tʃ/, /ʃ/, /k/) corresponding to the pronunciation of the letters in bold type in each word. (p.85)
	I practice	Sentence Identification	**Task 12:** Pupils are asked to reorder the jumbled words to form meaningful sentences with correct punctuation and capitalization. (p.92)
	I play and enjoy	Rhyming and Alliteration	**Task 2:** Pupils are asked to sing a rhyming song. (p.104)
		Phoneme Blending	**Task 3:** Pupils are given isolated phonemes and asked to form meaningful words. (p.104)
Me and my travels	*I listen and do*	Phoneme Categorization	**Task 4:** Pupils are required to listen and cross the odd/intruder word out. (p.109)

	My pronunciation tools	Phoneme Identity/ Matching	**Task 1:** Pupils are requested to practice the pronunciation of the contracted or short forms of **/will /** and **/will not/**. In other words, pupils are taught to identify these phonemes. (p.117) **Task 2:** Pupils are asked to practice the pronunciation of **/ed/**. (p.118) **Task 3-4:** Pupils are asked to practice the pronunciation of the **/th/** and **/tion/** sounds. (p.118)
	I pronounce	Phoneme Identity/ Matching	**Task 1:** Pupils are asked to listen and tick the correct pronunciation of the contracted form of **/will/**.(p.119) **Task 7:** Pupils are requested to listen and tick the correct pronunciation of the **/ed/** ending. (p.120)
		Phoneme Isolation	**Task 7:** Pupils are requested to listen and write the phonetic transcription for each **/th/** in bold type. (p.120)

Table 4.3. The Distribution of Phonological Awareness Tasks in My Book of English Year Three

Sequence	Rubric	The Type of Phonological Awareness Task	Description
Me, my abilities, my interests and my personality	*My pronunciation tools*	Phoneme Identity/ Matching	**Task1:** Pupils are requested to practice the pronunciation of the vowel sounds: / ə/, /æ/,/ɑ:/ and the contracted or short forms of **/can/** and **/can't/**. (p.17) **Task 2:** Pupils are requested to practice the pronunciation of "s" endings in plural nouns and present simple verbs. (p.18)
	I pronounce	Phoneme Identity/ Matching	**Task 1:** Learners are asked to listen and tick the right pronunciation of **/can/** and **/can't/**. (p.19) **Task 7:** Learners are asked to listen and identify the various words according to the pronunciation of **"s"** ending (**/iz/, /s/** and **/z/**). (p.20) **Task 9:** Learners are asked to listen and match each word with the corresponding pronunciation of its **"s"** ending. (p.20)
	I play and enjoy	Rhyming and Alliteration	**Task (Let's sing a song):** Pupils are asked to sing a song "I can" that comprises sound devices such as alliteration */dance-down/*, rhyme /**nose- toes/**,and assonance. (p.42)
Me and my lifestyles	*I listen and do*	Word Awareness	**Task 12:** Pupils are asked to listen to an interview and circle the words in bold that they hear. (p.51)

My pronunciation Tools	Phoneme Identity/ Matching	**Task 1, 2, 3:** Pupils are requested to practice the pronunciation of /**u:/,/ʊ/, /ɜ:/, /æ/, /ʌ/,**and /ə/.Otherwise speaking, pupils are taught to identify these phonemes. (p.56-58) **Task 4:** Pupils are required to practice the pronunciation of the silent letters /**t/ and /w/** sounds. (p.59)	
I pronounce		Phoneme Identity/ Matching	**Task 1:** Pupils are asked to listen and tick the correct pronunciation of the /**u:/ , /ʊ/** sounds. (p.60)
		Phoneme Isolation	**Task 3:** Pupils are required to listen and write the correct pronunciation of the /**u:/ , /ʊ/, /, /ɜ:/ /æ/, /ə/** sounds. (p.60) **Task 5:** Pupils are required to listen and write the correct pronunciation of The /**æ/, /ʌ/, /e/** sounds. (p.61)
			Task 7: Pupils are required to listen and write each word in its corresponding column according the c pronunciation of the /**æ/, /ʌ/, /e/.** (p.61) **Task 9:** Pupils are asked to tick the correct pronunciation of the letters /**t/, /w/,** and decide whether these letters are silent or pronounced. (p.62) **Task 11:** Pupils are asked to listen and write between slashes the appropriate phonetic symbol (/**u:/,/ʊ/, /ɜ:/ /æ/, /ʌ/, /ə/)** and between brackets the words "silent" or "pronounced."

Me and the scientific world	*I listen and do*	Word Awareness	**Task 15:** Pupils are asked to listen to an interview and circle the words in bold that they hear. (p.89)
	My pronunciation Tools	Phoneme Identity/ Matching	**Task a, b:** Pupils are asked to listen and repeat the pronunciation of the consonant sounds: **/f/** and **/v/**. (p.91)
	I pronounce	Phoneme Identity/ Matching	**Task 1:** Pupils are asked to listen and tick the correct pronunciation of the **/f/** and **/v/** sounds. (p.92)
		Phoneme Isolation	**Task 3:** Pupils are required to listen and write the correct pronunciation of the **/f/** and **/v/** sounds. (p.92) **Task 5:** Pupils are asked to listen and write the phonetic symbol **/f/** and **/v/** corresponding to the pronunciation of the letters in bold type in each word. (p.92
Me and my environment	*My pronunciation Tools*	Phoneme Identity/ Matching	**Task 1:** Pupils are asked to listen and repeat the pronunciation of the consonant sounds: /ʒ/ and / **dʒ**/. (p.124) **Task 2:** Pupils are asked to listen and repeat the pronunciation of the silent letters: /k/**,** /**w**/, /h/, /t/. (p.125)
	I pronounce	Phoneme Identity/ Matching	**Task 1:** Pupils are asked to listen and tick the correct pronunciation of the /ʒ/ and /**dʒ**/ sounds. (p.127)

		Phoneme Isolation + Rhyming and Alliteration	**Task 3:** Pupils are asked to listen and match together the words that rhyme. Then, match each rhyming pair with its corresponding phonetic symbols (/ʒ/ and **/dʒ/**). (p.127)
		Phoneme Isolation	**Task 6:** Pupils are requested to listen and tick the box corresponding to the pronunciation of the silent letters /k/, /w/, /h/, and /t/.(p.128)
	I play and enjoy	Rhyming and Alliteration	**Task (Let's sing a song):** Pupils are asked to sing a song titled "What a Wonderful World" written by Louis Armstrong. This song contains a number of rhyming words such as "wh**ite**" and "ni**ght**" and alliterations such as "I **s**ee **s**kies" (p.145)
		Phoneme Blending	**Task 3:** Pupils are asked to blend phonemes to compose the names of five trees and five animals. (p.145)

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Table 4.4. The Distribution of Phonological Awareness Tasks in My Book of English Year Four

Sequence	Rubric	The Type of Phonological Awareness Task	Description
Me, universal landmarks and outstanding figures in history, literature and arts	*My Pronunciation Tools*	Phoneme Identity/ Matching	**Task 1:** Pupils are requested to practice the pronunciation of the diphthongs: /ɪə/, /ʊə/, /eɪ/, /əʊ/, /ɔɪ//, /eə/, /aɪ/, /aʊ/. (p.26) **Task 2:** Pupils are requested to practice the pronunciation of consonant clusters such as **/pr/, /br/, /tr/, /dr/, /nt/, /nd/, /ft/,** and **/kt/.** (pp.27-28)
	I pronounce	Phoneme Categorization	**Task 1:** Learners are asked to listen and identify the intruder diphthong. (p.29)

		Phoneme Identity/ Matching	**Task 4:** Learners are asked to listen carefully to the pronunciation of letters in bold type in each sentence and identify the correct diphthong (**ɪə/, /ʊə/, /eɪ/, /əʊ/, /ɔɪ/, /eə/, /aɪ/, /aʊ/).** (p.29) **Task 8:** Pupils are required to listen to the pronunciation of letters in bold type in each word and choose the corresponding diphthong between brackets. (p.30) **Task 12:** Learners are asked to listen and identify the consonant cluster **/pr/, /br/, /tr/, /dr/, /nt/, /nd/, /ft/,** and **/kt/** in each word. (p.30)
		Phoneme Isolation	**Task 13:** Pupils are asked to listen and identify the position ("initial" or "final") of each consonant cluster. (p.30)
		Phoneme addition	**Task 16:** Pupils are requested to listen and complete the missing letters in each word between brackets. (p.30)

	I get ready for my BEM exam	Phoneme Identity/ Matching	**Task 3:** Learners are asked to listen and identify the various words according to the pronunciation of **"ed"** ending. (p.52)
Me, my personality and life experiences	*My pronunciation tools I pronounce*	Phoneme Identity/ Matching	**Task 1:** Pupils are requested to practice the pronunciation of the triphthongs: /**aɪə/,/eɪə/, /aʊ ə̯ /, /aɪ̯ ə̯ /, /ɔɪ̯ ə̯ /.** (p.67) **Task 2:** Pupils are requested to practice the pronunciation of **"have"** and **"has"** as auxiliaries in the present perfect tense. (p.68) **Task 3:** Pupils are requested to practice the pronunciation of **"ed"** endings in the past simple and past participle forms of regular verbs. (p.69)

		Phoneme Identity/ Matching	**Task 1:** Learners are asked to Listen and identify the pronunciation of the triphthongs represented by the letters in bold type in each word. (p.70) **Task 4:** Pupils are required to listen and choose the correct pronunciation of the triphthong **(/aɪə/,/eɪə/, /aʊ̯ ə̯ /, /aɪ̯ ə̯ /, /ɔɪ̯ ə̯ /)** in each underlined word. (p.70) **Task 7:** Pupils are requested to listen and write the correct pronunciation of the triphthong **(/aɪə/,/eɪə/, /aʊ̯ ə̯ /, /aɪ̯ ə̯ /, /ɔɪ̯ ə̯ /)** (p.71) **Task 10:** Pupils are required to listen carefully to the underlined words in the dialogue and choose the correct pronunciation of **"have"** and **"has."** (p.71)
		Phoneme Categorization	**Task 14:** Pupils are asked to listen carefully to the pronunciation of the **"ed"** ending of each verb and identify the intruder in each list. (p.72)

		Phoneme Identity/ Matching	**Task 18:** Learners are asked to listen and identify the various words according to the pronunciation of **"ed"** ending. (p.72)
Me, my community and citizenship	*My pronunciation Tools*	Phoneme Identity/ Matching	**Task 1:** Pupils are requested to practice the pronunciation of the silent letters: */k/, /w/, /l/, /b/, /n/*. (p.108) **Task 2:** Pupils are requested to practice the pronunciation of **"s"** endings in plural nouns and 3rd person singular of verbs in the present simple tense. (p.109)
	I pronounce	Phoneme Categorization	**Task 1:** Learners are asked to listen and identify the intruder sound in each list. (p.110)
		Phoneme Identity/ Matching	**Task 4:** Pupils are requested to listen carefully and identify the repeated silent letter in each sentence: *k/, /w/, /l/, /b/, /n/*. (p.110)
		phoneme Isolation	**Task 7:** Pupils are asked to read the text and identify the silent letters: *k/, /w/, /l/, /b/, /n/.* (p.110)

		Phoneme Categorization	**Task 10:** Learners are asked to listen carefully to the pronunciation of the "s" ending in each word and identify the intruder sound in each list. (p.110)
		Phoneme Isolation	**Task 12:** Pupils are asked to listen carefully to the underlined words in the excerpt from an English newspaper article and choose the correct pronunciation between brackets. (p.111)

In brief, the document analysis reveals that middle school English textbooks only refer to the phonological aspect of the L2 in relation to the input employed by the teacher or teacher's talk in the middle school setting (Ellis, 1985). Yet, the main aim of this focus on the phonological aspect of the L2 is to make the language more comprehensible to learners. No reference is made to the importance of knowing the phonological system of a language and of phonological awareness skills as a foundational basis for speech/language acquisition and later literacy acquisition. All the four textbooks seem to use only very few phonological devices such as phoneme identity, phoneme categorization, and phoneme isolation. Moreover, these tasks are only attributed to one level of phonological awareness that is phoneme awareness level. Other levels such as syllable awareness level and onset-rime awareness level are totally marginalized in the four books. The coming section presents and describes the results obtained from pupil and teacher questionnaires as well as from inspector interview.

CHAPTER FOUR: EXPLORATORY PHASE: DATA ANALYSIS AND DESCRIPTION

4.2. Pupil Questionnaire Analysis

This section presents and interprets the data obtained from the first and fourth year questionnaires. It elaborates the descriptive statistics as well as the researcher comments on these statistics.

4.2.1. First Year Level

➢ **Participants Information**

• **Gender**

Table 4.5. Participants Gender: First Year Level

Option	Number	percentage %
Male	16	40%
Female	24	60%
Total	40	100 %

Table 4.5 displays the gender distribution of the 40 first year student participants. The majority were female, with 24 students (60%). Meanwhile, there were 16 male participants, comprising (40%) of the sample. This indicates a higher representation of females among the first-year respondents, though both genders had reasonable participation. However, the opinions and abilities of both boys and girls are critical to capture when investigating phonological awareness, given that development and reading challenges can manifest differently across genders (Below, Skinner, Fearrington, and Sorrell, 2010). Consequently, the questionnaire sampling achieved reasonable gender balance to allow for comparing and contrasting perspectives.

- **Participant Age**

Table 4.6. Participants Age: First Year Level

Option	Number	percentage %
From 11-12	37	92,5%
More than 12	3	7,5%
Total	40	100 %

Table 4.6 shows the age breakdown of the 40 first year pupil participants. The vast majority (37 pupils or 92.5%) were between 11-12 years old. Only 3 pupils, comprising just 7.5% of the sample, were older than 12. This confirms that the first year middle school pupils surveyed align closely with the expected 11-12 year age range typical of Algerian grade 6 pupils. This is an important validation check, as the study aims to assess phonological awareness development among pupils in their initial stage of formal English education. Sampling students that predominantly fall in the standard age bracket for this grade level helps ensure the questionnaire data reflects a critical demographic for the research questions.

➢ **Section One: Interest in Reading**

Question 1. You started reading English at which stage.
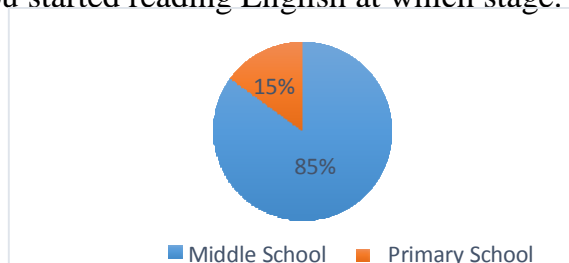
Pie Chart.4.1. The Beginning of Reading English: First Year Level

Pie chart 4.1 indicates whether first year middle school students reported

initially starting to learn English reading skills in primary school or middle school. It provides perspective on their timing of early literacy exposure. The clear majority, (85%) of first year pupils, responded that they began developing foundational English reading abilities in middle school. Just (15%) claimed that they started cultivating reading skills in primary school prior to entering middle school.

Question 2. How much do you like reading English in the classroom?
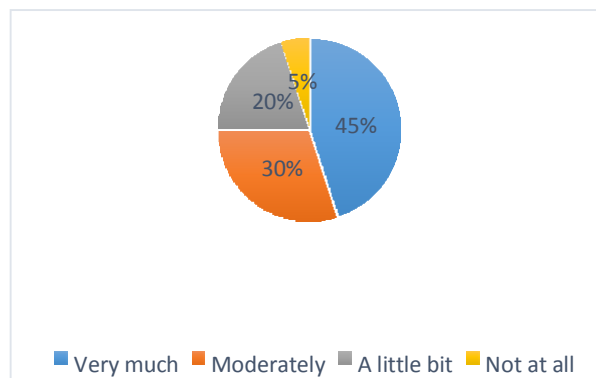
Pie Chart.4.2. First Year Pupils' Attitudes toward Reading English inside the Classroom

Pie chart 4.2. depicts the degree to which first year pupils enjoy reading English during classroom lessons, categorized as very much, moderately, a little bit, or not at all. It provides perspective on their engagement. The largest share (45%) indicates appreciating classroom reading very much. Nearly half remain actively engaged by existing lessons. Another sizeable (30%) are moderately fond of in-class reading activities. Combined with the very much slice, a total (75%) majority harbors solid enthusiasm. However, (20%) admit liking current practices just a little bit. Room for better catering to this subset's interests and skill-building needs persists. A small but concerning (5%) are not fans of classroom reading at all.

Question 3. How often do you read in English out of class? And why?
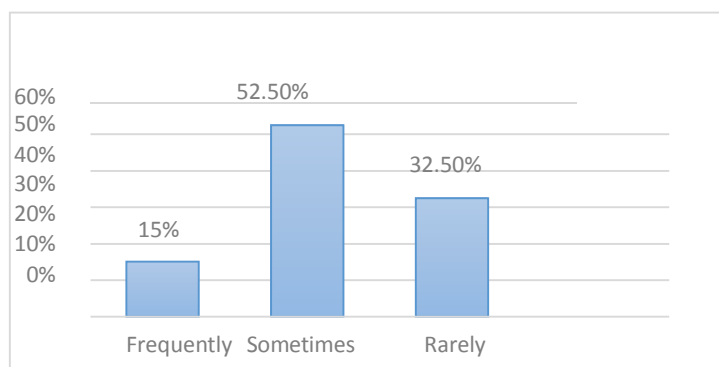
Bar Chart.4.1. First Year Pupils' Frequency of Reading outside the Classroom

The bar chart above delineates how often first year pupils read English materials beyond school lessons, categorized as frequently, sometimes, rarely or never. It indicates voluntary literacy engagement. Deliberately, just (15%) read frequently outside mandated assignments. Those participants mentioned that extensive reading expands their vocabulary, improves their memory skills and fosters their English communication skills. This signals most students rarely pick up English books or texts of their own volition to bolster skills. However, a slim majority (52.5%) do read optionally at times. Occasional voluntary reading persists among this subset. They declared that they sometimes read in order to improve their English, learn new words, and do their homework. Still, a sizeable (32.5%) rarely read extras. Together with the frequently category, this indicates most pupils do not routinely seek external English materials without coercion. They listed a number of reasons such as they do not like English, they are still unfamiliar with English, they cannot practice English outside the classroom, their study schedule does not allow enough time for reading, and their social life leaves little time for reading.

CHAPTER FOUR: EXPLORATORY PHASE: DATA ANALYSIS AND DESCRIPTION

Question 4. If you read frequently, what do you like reading?

The respondents asserted that they like reading novels, short stories, and detective stories such as Sherlock Holmes books.

➢ **Section Two: Learners' Reading Proficiency**

Question 5. How do you evaluate your reading competence?
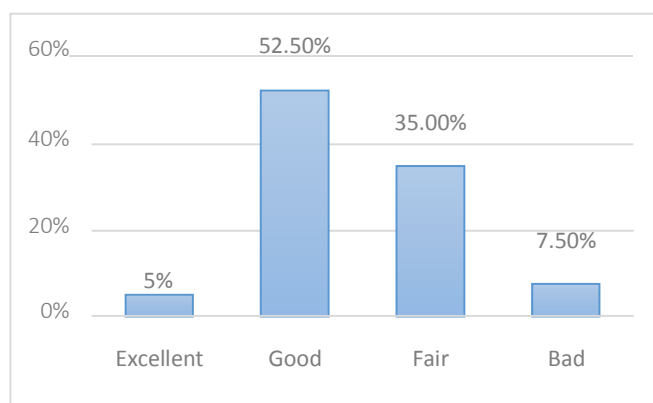
Bar Chart.4.2. First Year Pupils' Self Evaluation of Reading Skill

Bar chart 4.2 delineates first year students' self-assessed reading competence level as either excellent, good, fair or bad. It provides insight into their skills confidence. Only (5%) rate abilities as excellent, indicating very few feel fully proficient across competencies like fluency, decoding accuracy, analysis. A small majority (52.5%) evaluate skills as good. Combined with the excellent slice, (57.5%) are affirmatively confident in developing literacy. Over a third (35%) rank merely fair, recognizing room for strengthening vocabulary, comprehension, reading pace through personalized enhancement. Worryingly, (7.5%) gauge competency as outright bad, signaling this fraction lacks fundamental abilities most peers acquired. Remediation is imperative to lift skills.

Question 6. How do you find learning how to read in English?
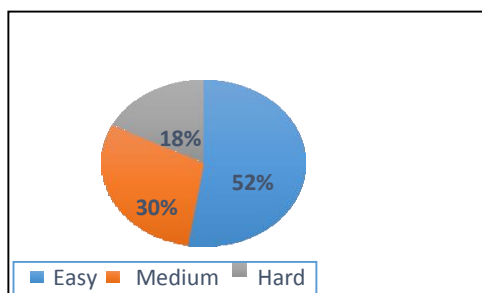
Pie Chart.4.3. First Year Pupils Attitudes towards Learning to Read in English

Pie chart 4.3 categorizes first year pupils into finding the experience of learning English reading easy, medium difficulty, or hard. It offers perspective on their skill acquisition trajectory. Slightly over half (52%) of first years reported picking up reading skills comes easily. This suggests existing instruction effectively scaffolds foundations for this subset. Another (30%) denoted medium difficulty, implying manageable but still challenging progression toward competencies like fluency. Some customization may better support this group. However, (18%) designate reading a hard uphill battle. This signals profoundly inadequate teaching methods failing to nurture this sizeable faction lacking adequate phonological awareness and decoding abilities to advance literacy skills without immense frustration.

Question 7. In your opinion, what is the most difficult part of reading? And Why?

Table.4.7. First Year Pupils Attitudes towards the most Difficult Part of Reading

Items	Frequency	Percent
Word recognition	12	21.4%
Reading with speed	20	35.7%

Word comprehension	24	42.9%
Total	56	100%

This table categorizes whether first year pupils indicated word recognition, reading speed, or comprehension was the hardest component of reading and breaks down the percentage identifying each area as most challenging. The clear plurality (42.9%) denoted comprehension as the thorniest reading subdomain. This signals analytical skills like drawing inferences or grasping implied meanings often stymy pupils. They stated that they often find a difficulty processing and understanding words because English is a new language for them. In addition, English is not widely spoken in Algeria; therefore, they cannot improve their skills in it. Furthermore, they are but beginners and they feel troubled when they come across long and complex words. Boosting reading speed arose as another top trouble area, selected by over (35.7%) of first years. Becoming fluid decoders to enable swift accurate translation from print to sound remains elusive for many. These informants said that they lack the speed and the smoothness in reading. They also sound choppy and awkward while reading. As a result, they regard reading as laborious process and tend not to want read. Worryingly, over (21.4%) specified difficulty even recognizing words - the decoding foundation for then smoothly extracting meaning. This deficiency risks impeding higher comprehension. They declared that they find trouble sounding out words and recognizing words out of context; they also confuse between letters and the sounds they represent.

Question 8. What are some other difficulties you face when reading? The pupils listed a number of difficulties such as:

- Pronunciation.

- Shyness.

- Fear of sounding out words.

- Comprehending and remembering the learnt words.

Question 9. Do you think that pronunciation activities in your textbooks improve your reading competence? If yes, how?
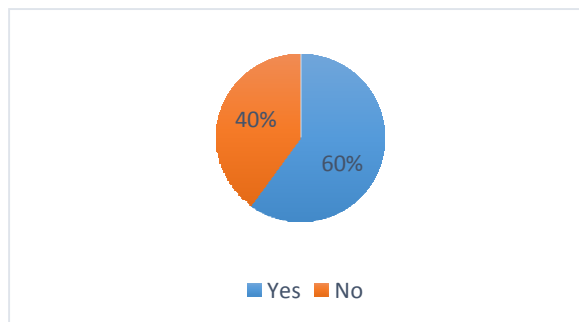
Pie Chart.4.4. First Year Pupils Attitudes toward the Impact of Pronunciation Activities on Reading Competence

Pie chart 4.4 depicts the percentage of first year pupils who agree versus disagree that practicing pronunciation via textbook exercises translates to better overall reading skills. It gauges their perception of transferability. A modest majority (60%) concur pronunciation work does boost abilities like decoding accuracy, fluency pace, and comprehension. They discern carryover value. They claimed that hearing words pronounced while being read helps them to be familiar and to make the connection between the written and spoken words. They also argued that pronunciation tasks are a good tool to boost their general language skills because they help them learn new words, expand their vocabulary, and improve their fluency. One respondent said *that the acquisition of the correct pronunciation eases the learning of English.* However, (40%) dissent, expressing pronounced skepticism about exercises ameliorating larger literacy. Dedicated practice may feel contextually divorced rather than mutually reinforcing. They said that English pronunciation is complicated and confusing because the system of vowels and consonants have various different sounds from their native language.

➤ **Section Three: Learners' Attitudes toward Methods of Teaching Reading**

Question 10. Which skill does your teacher focus more when teaching reading?

Table.4.8. First Year Pupils Attitudes toward the most Focused Skill when Teaching Reading

Items	Frequency	Percent
Word Recognition	18	35,3%
Reading Words with Speed	13	25,5%
Word Comprehension	20	39,2%
Total	51	100%

Table 4.8 delineates whether pupils indicated teachers prioritize word recognition, reading speed, or comprehension most when teaching reading and breaks down the percentage of responses for each category. The plurality (39,2%) specified comprehension gets prime emphasis from teachers. This suggests instruction concentrates more on higher-level analysis than rudimentary decoding or fluency. Word recognition ranked second at (35,3 %). Some attention apparently focuses on this essential foundation. But reading speed falls considerably behind at just (25,5%) despite its equal importance. Potentially instructors assume it naturally flows from recognition once words sound out accurately.

Question.11. Which activities do your teacher use to assess your reading?

Table 4.9. First Year Pupils Attitudes toward the most common Activities used to Assess Reading

Items	Frequency	Percent
Word Recognition Activities	17	32,7%
Fluency Activities	15	28,8%
Word Comprehension Activities	20	38,5%
Total	52	100%

Table 4.9 categorizes whether students indicated word recognition, fluency, or comprehension activities predominate reading assessments by teachers and breaks down response percentages per type. Mirroring classroom emphasis, a plurality (38,5%) identified comprehension activities as most prolific for evaluations. Assessing higher- level analysis apparently takes priority over foundational literacies. Word recognition ranked second at (32,7%). While an essential precursor for overall literacy, confirming this skill gets moderately less assessment attention. Trailing significantly, just (28,8%) reported fluency measurement frequently factors into assessments. Quantifying efficiency translating symbols into sounds seems undervalued.

Question 12. Do you think the reading assessment activities are useful? Say why?

Table.4.10. First Year Pupils Attitudes toward the Usefulness of Reading Assessment Activities

Items	Frequency	Percent
Useful	39	97,5%
Not useful	1	2,5%
Total	40	100%

Table 4.10 delineates the percentage of first year pupils who rated existing reading assessment techniques as useful versus not useful for evaluating and guiding skill improvement. An overwhelming (97.5%) majority validated current evaluation methods as constructive for diagnosing and upgrading abilities. The respondents claimed that these activities facilitate their reading skills in particular and improve their English in general. For instance, one participant advocated that *these activities foster my reading competence and help me build up and expand my knowledge. I can be open to new ideas and have an understanding of new things.* Two participants argued that *the reading tasks used by the teacher are entertaining since they make the learning environment more enjoyable and a fun place.* Only one dissenting pupil (2,5%), mentioned that *the reading assessment activities used by his/her teacher are inappropriate since they focus on some reading skills and neglect others.*

Question 13. Which of the following phonological awareness activities do you practice in class?

Table.4.11. The most Practiced Phonological Awareness Activities by First Year Pupils

Items	Frequency	Percent
Rhyming and Alliteration Activities	22	11,5%
Sentence Segmentation Activities	21	10,9%
Onset-rime Awareness Activities	24	12,6%
Syllable Awareness Activities	15	7,8%
Phoneme Awareness Activities	99	51,6%
None	11	5,6%
Total	192	100%

This table shows the percentage of first year pupils indicating they practice rhyming, sentence segmentation, onset-rime awareness, syllable awareness, phoneme awareness or no activities in class. Phoneme awareness activities dominate at (51,6%), confirming curriculum concentration on distinguishing base sound units. This likely involves exercises like identifying phonemes or phoneme blending/segmenting. Onset-rime activities rank second highest at (12,6%), signaling modal attention to distinguishing word part sounds. Tasks may include isolation or blending. Rhyming and sentence level work gather (11,5%) and (10,9 %) respectively. Syllable awareness trails further behind at (7,8%). These introductory skills receive comparatively less emphasis. Worryingly, (5,6 %) assert they practice no phonological awareness activities in

class. This signals a potential instructional deficiency depriving these pupils of essential early literacy foundations.

Question 14. Do you think that these activities can improve your reading competence?
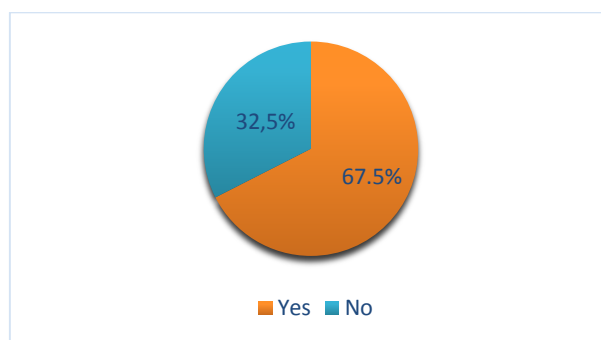
Pie Chart.4.5. First Year Pupils Attitudes toward the Role of Phonological Awareness Activities in Improving Reading

Pie chart 4.5. depicts the percentage of first year pupils who agree versus disagree that exercises targeting abilities like rhyming, phonemic manipulation, or syllable/onset-rime differentiation boost overall reading proficiency. A sizable (67.5%) majority dissent, concur the activities advance abilities. Just (32.5%) expressing pronounced skepticism that dedicated phonological awareness practice translates to better reading literacy skills such as decoding and fluency.

Question 15. What do you think of your teacher's method for teaching reading? Say why?
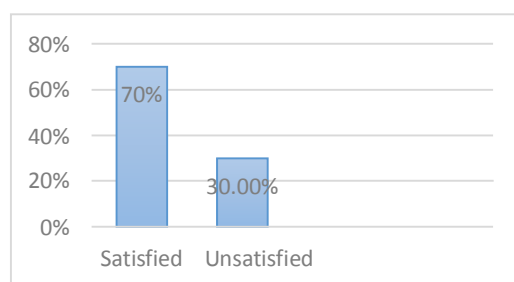
Bar Chart.4.3. First Year Pupils' Opinions on the Methods of Teaching Reading

Bar chart 4.3 depicts the percentage of first year pupils who rate their teacher's reading teaching method as satisfactory or unsatisfactory. It provides insight into their learning experience. A majority (70%) assess instructional techniques as effective. Confident validation of pedagogical approaches persists for most first years. They believed that their teacher's method is "good" as he/she often encourages them to "read aloud", supports them before, during, and after reading. Above all, he/she focuses on teaching them the meaning of new words. However, (30%) remain unconvinced. Some of them said that their teacher uses boring and demotivating reading materials. One participant mentioned that their teacher explains difficult English words using Arabic or French instead of English. Another participant said that their teacher uses some reading materials that are not appropriate for their age.

Question 16. What do you suggest for your teacher to help you improve your reading competence?

The aim of this question is to know how pupils expect their teachers help them improve their reading competence. The participants suggested the following:

- English teachers should dedicate more time to reading and speaking skills within the classroom.

- English teachers should set aside a more regular reading aloud time with pupils in order to demonstrate them how reading works.

- English teachers should promote pupils' word recognition, pronunciation, and comprehension skills through providing them with more activities.

- English teachers should improve pupils' fluency.

- English teachers should improve pupils' pronunciation through modeling and extensive practice.

- English teachers should read words slowly and translate them into Arabic or French when it is necessary.

- English teachers should engage with different types of reading material for an extended period of time within the classroom.

- English teachers should use little writing and more speaking during the class.

- English teachers should encourage pupils to read outside the classroom by choosing them storybooks and websites that are appropriate to their level.

- English teachers should explain difficult words.

- English teachers should get the pupils motivated to read by choosing attractive instructional materials.

- English teachers should help struggling readers by giving them more time and using strategies such as buddy reading to enhance their reading skills.

4.2.2. Fourth Year Level

➢ **Participant Information**

• **Gender**

Table 4.12. Participants Gender: Fourth Year Level

Option	Number	percentage %
Male	26	65%
Female	14	35%
Total	40	100 %

Table 4.12 displays the gender distribution of the 40 fourth year pupil respondents. The clear majority were male, with 26 students comprising (65%) of the sample. Meanwhile, there were 14 female participants, representing (35%). This denotes a higher representation of boys among the fourth-year students. However, with over a third female respondents, both genders still had reasonable involvement to enable contrasting reading beliefs, behaviors and abilities.

• **Participant Age**

Table 4.13. Participants Age: Fourth Year Level

Option	Number	percentage %
From 14-15	35	87,5%
More than 15	5	12,5%
Total	40	100 %

This table displays the age breakdown of the 40 fourth year student respondents. The vast majority (35 students or 87.5%) were between 14-15 years old. Only 5 pupils, comprising (12.5%) of the sample, were older than 15. This confirms the fourth-year middle school participants predominantly align with the expected 14–15-year age. Capturing perceptions of students squarely within this standard age bracket helps ensure their questionnaire feedback authentically reflects a key demographic. The outliers older than 15 due to starting school late or repeating a grade are quite few. With under (15%) of the total sample, their perspectives should not excessively skew overall results. However, future studies may analyze if reading opinions/skills differ among older fourth year students. Obtaining data from students concentrated heavily in the conventional age range provides helpful insight into how the average Algerian 14–15-year-old fourth year pupil perceives English reading instruction as they prepare to finish middle school. Patterns and themes revealed in their responses will be more representative.

➢ **Section One: Interest in Reading**

Question 1. You started reading English at which stage
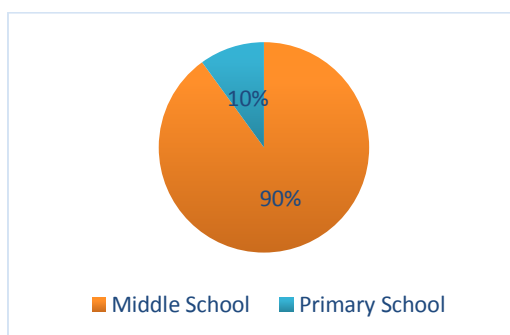
Pie Chart.4.6. The Beginning of Reading English: Fourth Year Level

Pie chart 4.6 indicates whether fourth year middle school students reported initially starting to learn English reading skills in primary school or middle school. It provides perspective on their timing of early literacy exposure. The vast majority, (90%) of fourth year pupils, responded that they started cultivating

foundational English reading abilities like phonics and decoding in middle school. Just (10%) marked primary school as when they began building skills essential for overall reading mastery. This subset had no early reading experience.

Question 2. How much do you like reading English in the classroom?
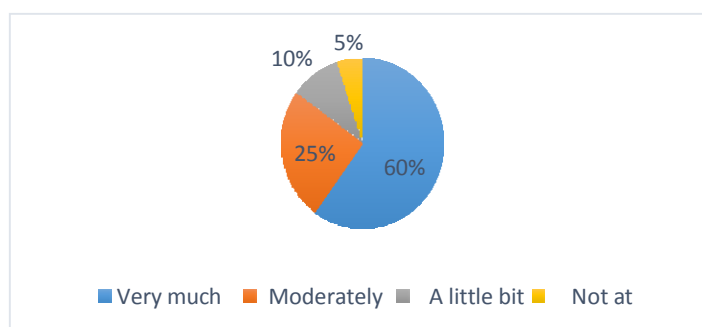
Pie Chart.4.7. Fourth Year Pupils' Attitudes toward Reading English inside the Classroom

Pie chart 4.7 depicts how much fourth year pupils enjoy reading English during lessons, categorized as very much, moderately, a little bit, or not at all. It indicates engagement. A majority (60%) are very fond of classroom reading. This substantial portion remains actively engaged by and responsive to existing instructional techniques. Moderately liking reading garners another quarter (25%) of students. Combined with the very much slice, a sizable (85%) majority harbor solid enthusiasm. However, (10%) admit limited enjoyment of current practices. This signals unmet interests among a subset detachable with tailored activities. Just (5%) reflect classroom reading elicits no fondness, but their needs likely deviate farthest from status quo methods.

Question 3. How often do you read in English out of class? And why?
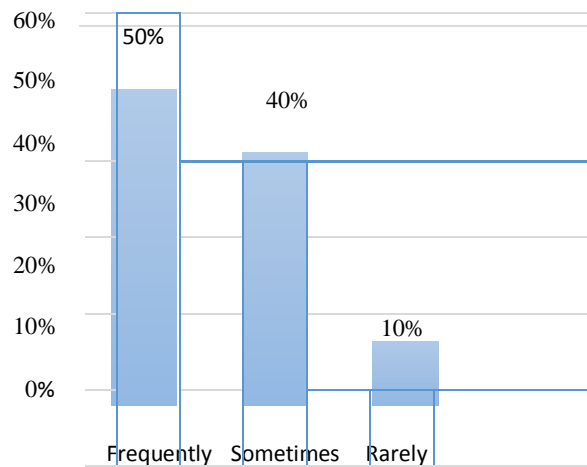
Bar Chart.4.4. Fourth Year Pupils' Frequency of Reading in English outside the Classroom

Bar chart 4.4 delineates how often fourth year pupils read English materials beyond school lessons, categorized as frequently, sometimes, rarely or never. It indicates voluntary literacy engagement. Half of the informants (50%) read frequently outside assigned work. This signals some pupils independently reinforce abilities through routine exposure. They mentioned that English is their favorite subject at school. Moreover, English is a global language, and learning it can open up many opportunities for them such as communicating with people from other countries, expanding their language skills, understanding and appreciating the media content they consume. Another (40%) sometimes choose extras. They argued that there is a shortage of English reading materials in bookstores, private and public libraries. In addition, the lack of motivation may make pupils less interested in reading English outside the classroom. Combined with frequent readers, a large (90%) majority pursues optional English at some consistent interval. However, (10%) still rarely read without coercion. Lagging motivation among this subset risks stunting their advancement pace. They stated that they find reading in English difficult because it requires someone to have a large vocabulary, a good pronunciation, and a good mastery of grammar rules.

They also added that they do not have enough time to read outside their English class, as they are often preoccupied with other study subjects.

Question 4. If you read frequently, what do you like reading?

The informants stated that they like reading short stories, comics, detective stories, manga books. One informant said that she likes reading science fiction books as they increase her wit and knowledge. Another participant claimed that she prefers to read online articles and celebrity autobiography books.

➢ **Section Two: Learners' Reading Proficiency**

Question 5. How do you evaluate your reading competence?
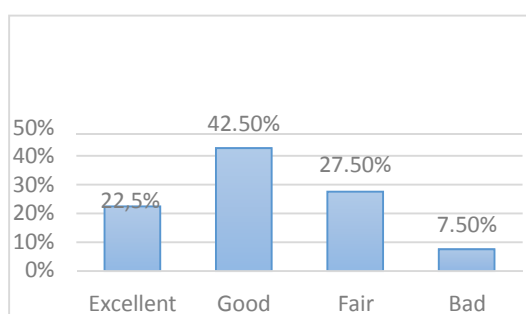
Bar Chart.4.5. Fourth Year Pupils' Self Evaluation of Reading Skill

Table 4.5 delineates fourth year pupils' self-rated reading competence as either excellent, good, fair or bad. It provides insight into skills confidence. A sizable (22.5%) assess abilities as excellent, signaling nearly 1 in 4 feel fully skilled across competencies like fluency, accuracy and analysis. Good ratings account for another (42.5%). Combined, about (65%) are affirmatively confident in continually developing literacy. However, (27.5%) rank merely fair, recognizing room for shoring up vocabulary, comprehension and reading pace through personalized enhancement. Bad ranks lowest at (7.5%) but still indicates a fraction feels fundamentally lacking core proficiencies most classmates acquired.

Question 6. How do you find learning how to read in English?
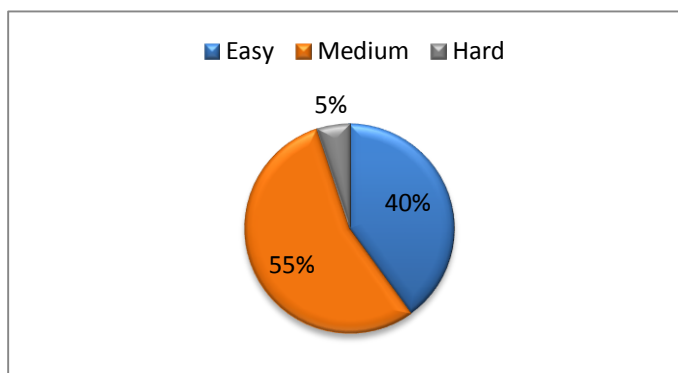
Pie Chart.4.8. Fourth Year Pupils Attitudes towards Learning to Read in English

Pie chart 4.8 categorizes fourth year pupils into finding the experience of learning English reading easy, medium difficulty, or hard. It offers perspective on their skill- building trajectory. A sizable (40%) characterize reading acquisition as straightforward. For this subset, existing methods effectively impart key literacies like fluency. Over half rate the process as medium difficulty. This suggests manageable yet still challenging progression toward multifaceted expertise for most. However, (5%) designate reading a significant struggle. Instruction severely fails supporting this group lacking fundamentals for smooth advancement.

Question 7. In your opinion, what is the most difficult part of reading? And Why?

Table.4.14. Fourth Year Pupils Attitudes toward the most Difficult Part of Reading

Items	Frequency	Percent
Word recognition	9	19.6%
Reading with speed	12	26.1%
Word comprehension	25	54.3%
Total	46	100%

Table 4.14 categorizes whether fourth year students identified word recognition, reading speed, or comprehension as the most challenging facet of reading and breaks down the percentage citing each area. Like first years, the plurality (54,3%) denoted comprehension as the thorniest component. Higher-order analysis and interpretation skills frequently trip pupils up. The participants justified their answer by stating that someone needs to have a large English vocabulary to understand the meaning of words. Moreover, many English words have multiple meanings. This can be confusing for them as they are still building their vocabulary and comprehension skills. One participant said that *"English is not our mother tongue and hence I find it difficult understanding English words."* Another participant mentioned that *"comprehension is very challenging as the meaning of English words can change depending on the context in which they are used."* Reading speed ranked second priority with (26%) marking it most difficult. Building decoding automaticity and efficiency in translating symbols to sounds remains elusive. These respondents claimed that they feel anxious to read quickly, especially in timed tests or exams. Moreover, they said that they find a difficulty articulating English words since English has many words that sound similar and this can slow down their reading speed. For nearly (19,6%), difficulty even deciphering words persists. This foundational barrier risks hindering advancing fluency and analysis. One participant said that *"developing word recognition skill requires listening a lot to English and this is not taken into consideration in our school's syllabus."* A second participant added that *"most pupils find difficulties decoding English words because they are influenced by French. Moreover, they may find a difficulty to figure out the pronunciation of words which they have never encountered before."*

Question 8. What are some other difficulties you face when reading? The participants listed a number of difficulties such as:

- The negative transfer from French to English.

- Problems with silent letters that they change the pronunciation of another

syllable rather than being pronounced.

- Difficulty with decoding unfamiliar and long words.

- Reading words with speed.

- The shortage of English reading materials.

- Dislike of English.

Question 9. Do you think that pronunciation activities in your textbooks improve your reading competence? If yes, how?
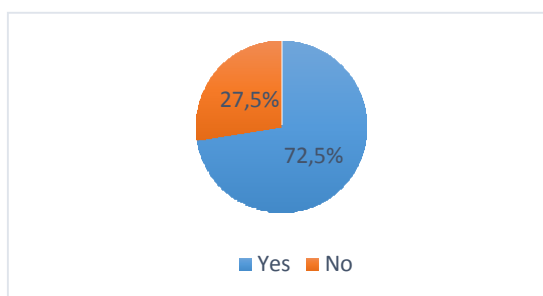
Pie Chart.4.9. Fourth Year Pupils Attitudes towards the Impact of Pronunciation Activities on Reading Competence

Pie chart 4.9 depicts the percentage of fourth year pupils who agree versus disagree that practicing pronunciation via textbook exercises translates to better overall reading skills. It gauges their perception of skill transferability. The substantial majority (72,5%) dissent, concur pronunciation work boosts abilities like decoding accuracy, fluency pace, and comprehension. They stated that these tasks help them recognize and produce individual sounds by teaching them how to move their mouth, lips, and tongue in specific ways. They can also help them learn new vocabulary words by teaching them how to correctly pronounce and spell these words. This can help them   become more aware of the sounds they are producing when they read and improve their overall reading accuracy and comprehension. Just (27,5%) expressed pronounced skepticism that dedicated sound differentiation practice improves reading literacy. These participants may

have had negative experiences with pronunciation activities, or may not have seen the connection between pronunciation and reading competence.

Section Three: Learners' Attitudes toward Methods of Teaching Reading

Question 10. Which skill does your teacher focus more when teaching reading?

Table.4.15. Fourth Year Pupils Attitudes toward the most Focused Skill when Teaching Reading

Items	Frequency	Percent
Word Recognition	19	37,3%
Reading Words with Speed	07	13,7%
Word Comprehension	25	39%
Total	51	100%

Table 4.15 delineates whether fourth year pupils indicated teachers prioritize word recognition, reading speed, or comprehension most when teaching reading and breaks down percentages choosing each area. Mirroring first year patterns, comprehension again garners prime emphasis with (39%) citing it the focal point. Instruction apparently concentrates more on higher-level analysis than decoding/fluency. Word recognition ranked second with (37,3%) indicating attention to this essential basis. But other key pillars lag behind. Persistently, reading speed falls last at just (13,7%) despite its equal significance. Potentially instructors simply expect it flows automatically after skills like recognition.

CHAPTER FOUR: EXPLORATORY PHASE:
DATA ANALYSIS AND DESCRIPTION

Question.11. Which activities do your teacher use to assess your reading?

Table.4.16. Fourth Year Pupils Attitudes Toward the most common Activities used to Assess Reading

Items	Frequency	Percent
Word Recognition Activities	17	29,3%
Fluency Activities	11	19%
Word Comprehension Activities	30	51,7%
Total	58	100%

Table 4.16 demonstrates whether fourth year pupils indicated teachers use word recognition, fluency, or comprehension activities predominantly to assess reading progress and breaks down percentages per type. Mirroring classroom emphasis, a majority (51.7%) identified comprehension activities as most prolific. Assessing higher- order analysis apparently remains priority. Word recognition activities account for the second highest percentage (29.3%). Confirming this foundational skill gets important but moderately less attention. Fluency measurement persists as least common, with just (19%) citing regular incorporation during assessments. Quantifying efficiency translating print to sound seems undervalued.

Question 12. Do you think the reading assessment activities are useful? Say why?

Table.4.17. Fourth Year Pupils Attitudes toward the Usefulness of Reading Assessment Activities

Items	Frequency	Percent
Useful	36	90%
Not useful	4	10%
Total	40	100%

Table.4.17 categorizes the percentage of fourth year pupils who find existing reading assessment techniques useful versus not useful for gauging and guiding skill improvement. Mirroring first year patterns, a sizable 90% majority validated current evaluation methods as constructive for diagnosing and upgrading abilities. Assessments seem broadly beneficial. For instance, five participants stated that *"these activities help them learn and understand English words."* In addition, ten respondents stressed *"the crucial role of these activities in expanding their English vocabulary and improving their comprehension skills."* Besides, three respondents mentioned that *"these activities help them pronounce English words correctly."* Additionally, one participant claimed that *"the reading assessment tasks enhance my English proficiency in general and my speaking skills in particular."* Furthermore, one pupil assumed that these *tasks enhance my concentration level.* However, dissent doubled from first years with 10% now questioning assessment utility. Their greater experience provides reasoned doubt worth exploring. One respondent asserted that *"these activities discard word comprehension skills hence they are useless."* Two respondents mentioned that *"these tasks are not sufficient."* Whereas, one respondent said that *"these activities are not applicable to real- world situations."*

Question 13. Which of the following phonological awareness activities do you practice in class?

Table.4.18. The most Practiced Phonological Awareness Activities by Fourth Year Pupils

Items	Frequency	Percent
Rhyming and Alliteration Activities	28	10,7%
Sentence Segmentation Activities	31	11,9%
Onset-rime Awareness Activities	41	15.7%
Syllable Awareness Activities	23	8,8%
Phoneme Awareness Activities	136	52,1%
None	2	0.8%
Total	261	100%

Table 4.18 shows the percentage of fourth year pupils indicating they practice rhyming, sentence segmentation, onset-rime awareness, syllable awareness, phoneme awareness or no phonological activities in class. Identical to first year patterns, phoneme awareness activities dominate at (52.1%). Differentiating sounds receives consistent emphasis throughout middle school literacy instruction. Onset-rime and sentence level work rank second and third at nearly (15.7%) and (11.9%) respectively. Rhyming and syllables trail further behind with (10.7%) and (8.8%) successively. This partially mirrors first year distributions. Attentively, (1%) still assert they practice no phonological awareness skills in class by fourth year. Even with added experience, a small subset seems deprived of essential introductory abilities.

Question 14. Do you think that these activities can improve your reading competence?
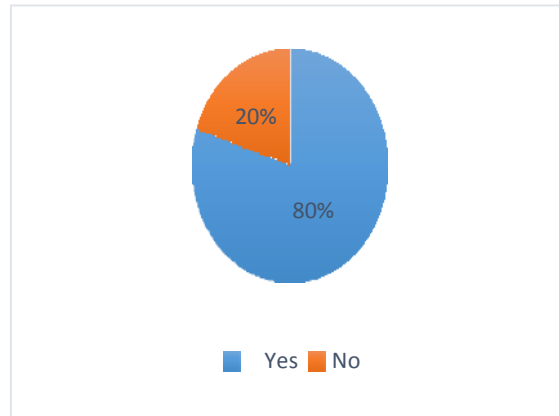
Pie Chart.4.10. Fourth Year Pupils Attitudes toward the Role of Phonological Awareness Activities in Improving Reading

Pie chart 4.10 depicts the percentage of fourth year pupils who agree versus disagree that exercises targeting abilities like rhyming, phonemic manipulation, or syllable/onset- rime differentiation boost overall reading proficiency. Unlike first years, a strong 80% majority of fourth years concur that dedicated practice translates to better literacy skills like decoding, fluency pace, and analysis. Most discern tangible value. Just 20% maintain skepticism about the activities advancing abilities, a split reversal from the first year pattern where two-thirds rejected advantages.

Question 15. What do you think of your teacher's method for teaching reading? Say why?
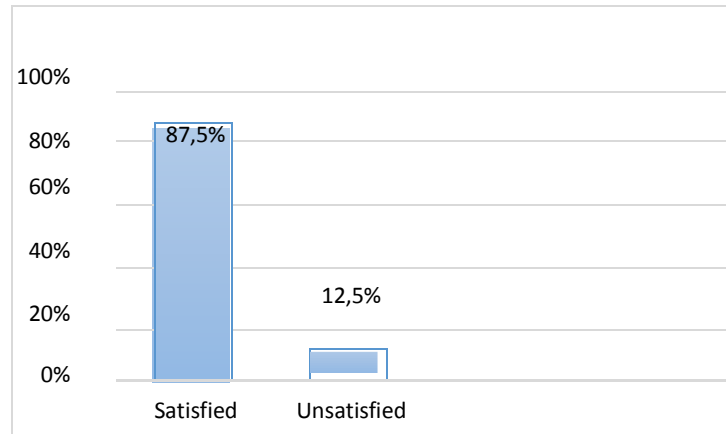
Bar Chart.4.6. Fourth Year Pupils' Opinions on the Methods of Teaching Reading

Bar chart 4.6 categorizes the percentage of fourth year pupils who rate their teacher's reading teaching method as satisfactory versus unsatisfactory and provides insight into their learning experience. A sizable majority (87.5%) assess instructional techniques as effective. Confident validation of pedagogical approaches persists into the later middle school years. Just (12.5%) remain unconvinced, a halving of dissent from first year levels that implies early doubts about utility may resolve with time and evidence.

Question 16. What do you suggest for your teacher to help you improve your reading competence?

The fourth-year pupils suggested the following:

- English teachers should help pupils find reading materials that are both interesting and at their reading level.

- They should help pupils learn grammar rules so that to improve their syntactic knowledge and comprehension skills.

- They should show pupils how to pronounce words correctly.

- They should correct their pupils' reading errors.

- They should encourage pupils to read extensively inside and outside the classroom.

- They should combine listening and reading in a single class.

- They should provide pupils with audio reading materials. By listening, pupils can hear proper pronunciation and intonation, and can better understand the meaning of the text.

- They should provide pupils with more pronunciation activities.

- They should give more focus to word recognition skills.

- They should read aloud texts and serve as a model for pupils so that they can learn from their pronunciation, pacing, and emphasis.

- They should explain the studied texts. This allows pupils to gain a better understanding of the nuances of the language, including its grammar, vocabulary, and syntax.

- They should use poems, songs, and rhymes that focus on phonics. The

latter can be a fun and engaging way to help pupils learn to read.

- They should make their reading class fun and enjoyable. For example, they can use games, puzzles, and other interactive activities to make learning more engaging.

- They should create healthy competition in reading classes to motivate pupils and encourage them to try harder.

- They should use rewards and incentives to motivate pupils be more productive and create a feeling of pride and achievement.

- They should use technology in their reading class. They should use some audiovisual aids such as computers, VCD players, picture books, digital reading applications, etc.

4.3. Teacher Questionnaire Analysis

➢ **Section One: Participant Information**

1. **Gender**

Table.4.19. Teachers Gender

Option	Number	percentage %
Male	00	00%
Female	5	100%
Total	5	100%

The results demonstrate that (100%) of the participants are females, whereas there are no males. This suggests that females form the majority of EFL teachers in Algerian middle schools.

2. Years of Middle School Teaching Experience

Table.4.20. Teachers Working Experience

Option	Number	percentage %
From 0-5 Years	0	0%
6-10 Years	0	0%
11-20 Years	2	40%
Over 20 Years	3	60%
Total	40	100 %

The table above shows that all the teachers involved in this study have reasonable years of experience. The highest percentage of teachers' experience (60%) is over twenty years whilst (40%) ranges between 11 to 20 years. This indicates that the participants' perceptions on the subject under investigation tend to be credible and reliable.

3. Level of Education

Table.4.21. EFL Teachers Level of Education

Option	Number	percentage %
University	4	90%
Teacher Training School (ENS)	1	10%
Total	5	100%

The obtained results in the table above illustrate that (90%) of the participants graduated from university. Only one respondent graduated from the teacher training school **(ENS).** This can be explained by the fact that most foreign language students in Algeria graduate from university.

➢ **Section Two: Middle School Program Information**

Question 1. The middle school grade which you currently teach is:

Table.4.22. EFL Teachers Current Grade of Teaching

Items	Frequency	Percent
First Year	3	30%
Second Year	2	20%
Third Year	2	20%
Fourth Year	3	30%
Total	10	100%

The results in the table above indicate that 3 participants teach first year pupils. Similarly, 3 participants teach fourth year pupils. Nevertheless, 2 teachers claimed to teach second year pupils and another two respondents teach third year.

Question 2. Type of middle school program you currently teach is:
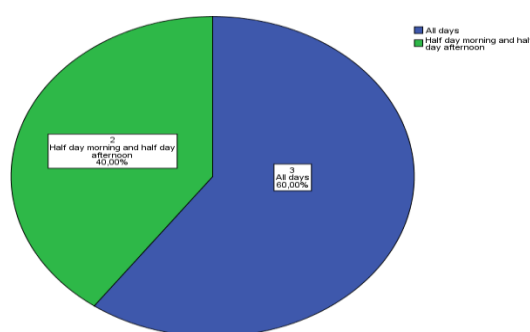
Pie Chart.4.11. Type of Middle School Program Used by EFL Teachers

The pie chart 4.11 displays that (60%) of the informants chose "half day mornings", whereas (40%) of them chose "half day morning and half day afternoon. No one selected "all days" or "alternate days". This means that the allotted time to teach English is not sufficient. It is understandable that it would be difficult to give so many beginning English learners the opportunity to properly use the language in such a limited time- period (two or three weekly hours).

➢ **Section Three: Reading Instruction**

Question 1. What do you think of the current approaches used to teach reading? And, why?

Table.4.23. EFL Teachers Attitudes toward the Current approaches Used to Teach Reading

Items	Frequency	Percent
Satisfactory	4	80,0
Unsatisfactory	1	20,0
Total	5	100,0

The results obtained from table 4.23 denote that 4 respondents declared that they are "satisfied" with the current approaches to teach reading. They stated that these approaches enable pupils to read different types of texts and thus equip them with necessary skills for next levels. Moreover, they help EFL learners to develop effective strategies for dealing with unfamiliar vocabulary and building meaning. In addition, they promote oral language development. Furthermore, they improve learners' skills in listening comprehension and critical thinking. Besides, they expand the pupils' imagination and encourage their creativity.

Additionally, they foster pupils' "independent reading" i.e., children's reading of text on their own, with minimal to no assistance from teachers or caretakers. Above all, they promote pupils' self-esteem and emotional well-being. Nonetheless, one participant mentioned that she is not satisfied with the current approaches to teach reading. She said that these approaches are demotivating and ineffective. She believed that the current curricula make the pupils get bored easily since they provide them with long and complicated texts. She added that the designated texts contain many words which are difficult to decode and understand. All this, make pupils hate learning to read.

Question 2. Which reading skill would you consider the most important to teach in the middle school reading program?
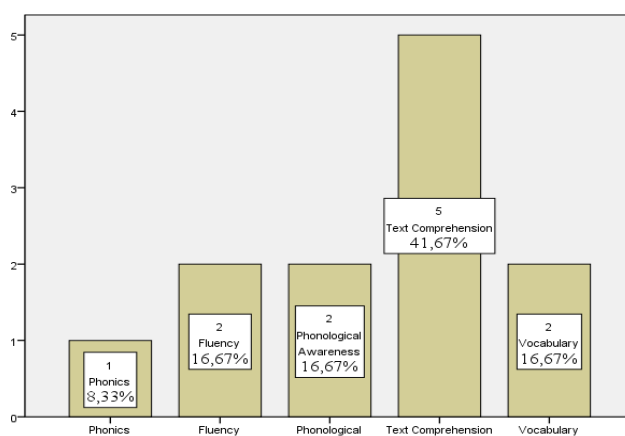
Bar Chart.4.7. EFL Teachers Attitudes toward the most Important Reading Skill to teach in Middle School

Bar chart 4.7 demonstrates that (41,67%) of the participants considered "text comprehension" as the most important learning skill to teach in the middle school reading program. Comprehension boosts pupils' vocabulary, grammar, and overall understanding of the language. More specifically, it increases children's understanding of the text and help them become active readers by engaging with the text. Without comprehension, children gain no meaning from what they read. Besides, (16,67%) of the respondents opted for "vocabulary": The latter is key to reading comprehension. Pupils cannot understand what they are reading without knowing what most of the words mean. They need to learn

the meaning of new words that are not part of their oral vocabulary. In addition, the same percentage (16,67%) chose "fluency". Fluency allows pupils time to focus on what the text is saying. It enables them to make connections between what they are reading and their own background knowledge. Therefore, they are able to concentrate on comprehension. Nonetheless, (16,67%) of the participants selected "phonological awareness" and (8,33%) favored "phonics" over other learning skills. This implies that teaching phonological awareness and phonics are not yet a priority for EFL teachers. Moreover, it corroborates the lack of explicit and systematic instruction and adequate practice with phonological awareness and phonics. This results in a core weakness with reading and decoding.

Question 3. Where do you allocate time for phonological awareness instruction in your reading class?

Table.4.24. EFL Teachers Allocated Time for Phonological Awareness Instruction in Reading Class

Items	Frequency	Percent
Daybook Plans	1	16,7%
Lesson Plans	2	33,3%
Not included	3	50%
Total	6	100%

The results show that (50%) of the participants do not include phonological awareness in their teaching plans. This implies that the majority of the EFL teachers do not recognize the positive impacts of phonological awareness on reading. Nevertheless, (33,3%) of the informants mentioned that

they include phonological awareness in their "lesson plans" and (16,7%) of them said that they incorporate it in their "daybook plans". This suggests that these respondents take into consideration how pupils need to learn phonological awareness and how it can be done effectively during the class time. They seem to be more conscious of the facilitative role that phonological awareness plays in fostering reading competence.

Question 4. Would you use a phonological awareness assessment to predict reading abilities?
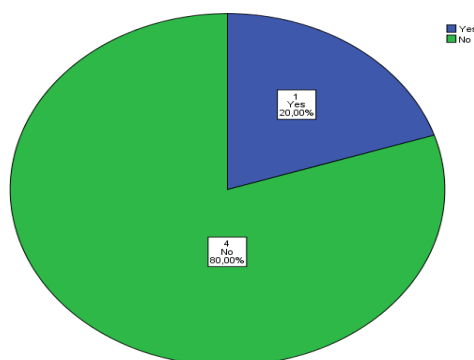
Pie Chart.4.12. EFL Teachers Attitudes toward the Use of Phonological
Awareness Activities to Assess Reading

The pie chart above demonstrates that (80%) of the informants do not use phonological awareness activities to assess their pupils' reading abilities. This corroborates that most EFL teachers are unaware or not fully aware of what phonological awareness is and the significance it holds to helping pupils become reading literates. However, (20%) of the informants claimed that they use phonological awareness to evaluate their pupils' reading capabilities. This can be explained by the fact that some Algerian middle school EFL teachers might use the phonological awareness tasks included in the four textbooks that are part of the teaching syllabus. Therefore, they have no choice but to use these tasks to evaluate pupils' reading competence.

Question 5. Do you have learning centers which focus only on phonological awareness?

Table.4.25. The Availability of Learning Centers for Teaching Phonological Awareness

Items	Frequency	Percent
Yes	2	40%
No	3	60%
Total	5	100%

The results illustrated in the table show that (60%) of the respondents do not use learning centers to teach phonological awareness. This implies that these EFL teachers do not design any self-checking engaging activities to focus on phonological awareness skills and deepen the pupils' knowledge and abilities in that area. Nonetheless, (40%) of the participants assumed that they do use learning centers which focus only on phonological awareness. This suggests that they use some tasks such as games, activities, manipulatives to enrich and review the pupils' current learning and reinforce their phonological skills.

Question 6. What type of phonological awareness skills do you formally teach in your middle school classroom?

Table.4.26. Type of Phonological Awareness Skills Used by EFL Teachers in Classroom

Items	Frequency	Percent
Rhyming and Alliteration	4	17,4%
Sentence Awareness	2	8,7%

Onset-rime Awareness	3	13%
Syllable Awareness	5	21,7%
Phoneme Awareness	9	39,2%
Total	23	100%

As shown in the table above, "phoneme awareness skills" are reported to be the most frequent phonological awareness skills taught in the classroom with a percentage of (39,2%). This indicates that teachers prioritize teaching pupils to identify and manipulate individual sounds in words. "Syllable awareness skills" are the second most frequently taught skills, with a percentage of (21,7%). This suggests that EFL teachers assume that syllable awareness is also critical for developing phonemic decoding skills, as it helps pupils break words down into smaller units to make them easier to sound out. But, perhaps not as frequently as phoneme awareness skills. Rhyming and alliteration, onset-rime awareness, sentence awareness, are taught less frequently, with rates of, (17,4%), (13,0%) and (8,7%) respectively. This may indicate that teachers prioritize teaching phoneme and syllable awareness over these other skills.

Question 7. How **often** do you teach phonological awareness skills?

Once a week
1-3 Times on month

2
1-3 Times on month
40,00%

3
Once a week
60,00%
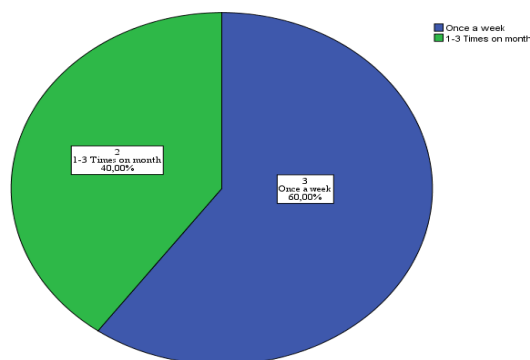
Pie Chart.4.13. Frequency of Teaching Phonological Awareness Skills

The statistics show that 3 respondents postulated that they teach

phonological awareness "once a month", whereas 2 respondents claimed to teach it "1-3 times a month." No participant opted for "daily." This confirms that the teaching of phonological awareness skills is not given a proper timing in Algerian middle schools. Moreover, it indicates that most EFL teachers are not fully aware of the crucial role of phonological awareness in boosting children' reading and spelling capacities. It is obvious that EFL teachers focus more on teaching "text comprehension" and "vocabulary" and thus might dedicate more time to teaching these skills as shown in question 2.

Question 8. What are your perceptions toward phonological awareness instruction in the middle school?

Table.4.27. Likert Scale Survey Percentages of EFL Teachers' Perceptions toward Phonological Awareness Instruction in the Middle School

	Item 1	Item 2	Item 3	Item 4	Item 5	Item 6	Item 7	Item 8	Item 9	Item 10
Strongly disagree	00%	40%	00%	20%	00%	00%	00%	40%	00%	20%
Disagree	60%	40%	60%	40%	00%	00%	40%	60%	80%	60%
Undecided	20%	20%	20%	40%	20%	60%	40%	00%	00%	20%
Agree	20%	00%	20%	00%	60%	40%	20%	00%	20%	00%
Strongly Agree	00%	00%	00%	00%	20%	00%	00%	00%	00%	00%
Total	100%	100%	100%	100 %	100 %	100 %	100 %	100 %	100 %	100 %
Mean	2,60	1,80	2,60	2,20	4,00	3,40	2,80	1,60	2,40	2,00
Std. Deviation	,894	,837	,894	,837	,707	,548	,837	,548	,894	,707

Item 1: Phonological awareness is an essential reading skill in middle school. **Item 2:** PA instruction focuses only on the sounds in words. **Item 3:** Beginning readers should be able to isolate sounds in words. **Item 4:** Learning to read involves blending sounds to

form words. **Item 5:** PA and **phonics instruction*** teach the same reading strategies. **Item 6:** Phonics should be taught before PA. **Item 7:** PA instruction in middle school has an impact on reading in the later grades. **Item 8:** PA instruction can be used to prevent future reading difficulties. **Item 9:** PA should be explicitly taught with formal lessons. **Item 10:** Daily PA instruction and activities are necessary in middle school.

The obtained results of the descriptive analysis demonstrated that the EFL teachers' perceptions toward phonological awareness instruction in middle school (Table1) were not very high. The scores showed that the mean of participants' responses ranged between 1.60 and 2.80, indicating that most of the respondents do not consider phonological awareness as an essential prerequisite to learning to read. Items 1, 2, 3, and 4 aimed to know whether the participants have an adequate phonological awareness. For example, item 2 (M=1.80; SD=.837) indicated that most of the informants do not assume that phonological awareness instruction focuses only on the sounds in words. This means that these participants ignore the fact that phonological awareness is an oral and auditory skill, and thus the focus is on phonemes in words. The responses on item 3 (M= 2.60; SD=.894) and item 4 (M= 2.20; SD=.837) illustrated that the majority of participants do not think that learning to read should incorporate isolating and blending sounds in words. Regarding the other items 7, 8, 9, and 10 which shed light on the impact of phonological awareness on reading, most informants disagreed with the idea that phonological awareness is a strong predictor of children future reading ability as in item 7 (M=2.80; SD=.837). Moreover, the participants rejected the claim of using phonological awareness for preventing future reading difficulties as in item 8 (M=1.60; SD=.548). Furthermore, item 9 (M=2.40; SD=.894) designated that most respondents do not see the need for explicit phonological awareness instruction through formal lessons. This can be explained by the fact that most Algerian middle school EFL teachers give priority to "text comprehension" and "vocabulary" over "phonological awareness." Responses to item 10 (M=2.00; SD=.707) indicated that most of EFL teachers do not see that daily phonological awareness instruction and

activities are necessary in middle school. The items that explore the relationship between phonological awareness and phonics achieved the highest scores. For instance, the responses on item 5 (M=4.00; SD=.707) demonstrated that the participants agreed that phonological awareness and phonics are similar. It should be stated that phonological awareness and phonics tend to overlap but they are not the same. Phonics focuses on how sounds look in printed words, while phonological awareness is the global knowledge of sounds in spoken words (see the literature review). Finally, item 6 (M=3.40; SD=.707) showed that most participants believe that phonics should be taught before phonological awareness which is another misconception. Phonological awareness precedes phonics. Once pupils have mastered the sounds of language, then the sounds are associated with written letters or groups of letters.

Question 9. What are some difficulties in teaching phonological awareness?

The participants assumed that the main difficulties in teaching phonological awareness are the following:

- The allocated time is not sufficient for teaching English in general and phonological awareness in particular. Three English classes per week are not enough for the children to learn how to communicate, read, and write properly.

- The formal phonological awareness instruction does not have much value in the middle school curricula. According to one participant, English teacher's guides state that phonetics and pronunciation should not be taught independently from other skills. As a result, many pupils face difficulties decoding, pronouncing, and understanding English words.

- Poor quality textbooks.

- Inappropriate reading materials and tasks.

- The limited practice and the lack of exposure to the target language.

- The lack of audiovisual aids hamper the teaching and learning of phonological awareness.

- The absence of phonetics and phonology laboratories which offer advanced learning conditions of speech perception and production.

- The effect of Arabic and French on English learning (interference).

Question 10. Are there any additional comments about how reading competence can be improved through phonological awareness in your classroom that you would like to add?

The participants suggested a number of solutions to improve phonological awareness instruction:

- The time of English classes should be extended to improve and strengthen pupils' phonological awareness skills.

- Explicit instruction in phonological awareness which involves systematic and sequential teaching of how to identify, detect, delete, segment, or blend segments of spoken words.

- The modulation of the English curriculum in accordance with pupils' level and needs.

- It is essential for teachers to have a training in order to better understand assessing and teaching phonological awareness.

- Incorporate phonological awareness activities into reading instruction.

- Use of multisensory activities and games to help pupils learn how to manipulate sounds in spoken words.

- Teachers should read aloud to model fluent reading of the text and help

pupils focus on comprehension, acquisition of new vocabulary, and phonological awareness, etc.

- Designing tutorials or supplementary lessons through which the pupils can learn more about the basics of phonological awareness and improve their phonological skills.

- Middle schools need to be fully equipped with phonetics lab equipment for high- quality teaching.

4.4. Inspector Interview Analysis

➤ **Participant Information**

• **Gender**

Table.4.28. Middle School Inspectors Gender

Option	Number	percentage %
Male	10	66.7%
Female	05	33.3%
Total	15	100%

According to the table above, (66.7%) of the participants are males, whereas (33.3%) are females. This implies that males form the majority of education inspectors.

• **Working Experience**

Table.4.29. Middle School Inspectors Working Experience

Option	Number	percentage %
From 0-5 Years	6	40%
6-20 Years	9	60%
Total	15	100 %

The results show that the highest percentage of teachers' experience (60%) ranges between six to twenty years while (40%) varies between one to five years. This indicates that the participants' perceptions on the subject under investigation tend to be credible and reliable.

➢ **Rubric One: Reading Instruction**

Question1. What are the main problems that face EFL learners in reading at middle school?

Table.4.30. Middle School English Inspectors' Opinions on EFL Learners' Reading Difficulties

Items	Frequency	Percent
Poor reading comprehension.	9	42,9%
Difficulty to understand complex sentence structures.	2	9,5%
Difficulty with inferring.	2	9,5%
Difficulty with pronunciation.	3	14,3%
Difficulty with decoding and fluency.	3	14,3%
The lack of extensive reading.	1	4,8%
The lack of critical reading skills.	1	4,8%

The table above displays that 9 inspectors mentioned that "poor reading comprehension" is the major obstacle to reading success in middle school. The respondents asserted that EFL learners often lack the necessary vocabulary to understand the meaning of words and texts they are reading. In this respect, one participant stressed that "*the biggest problem Algerian EFL learners have is weak reading comprehension skills.*" This comes in accordance with the pupils' responses that attested "reading comprehension" to be the most difficult part of

reading. However, 2 participants thought that understanding complex sentence structures make it hard to comprehend the texts. One of these two respondents postulated that *"when reading texts, it is usually the complex sentence constructions that EFL learners struggle with. English is a Germanic language. Our pupils speak a Semitic language. These 2 language groups differ in many ways. As such, this may cause minor cross-linguistic issues when reading."* According to her, the difference between Arabic and English syntactic structures may result in reading difficulties.

Nevertheless, 2 respondents assumed that most EFL learners have difficulty inferring meaning from the text, as they are not familiar with the target language context or cultural references. One of them stated that *"our pupils are unable to use their prior or background knowledge to understand texts. This is mainly due to their limited experience with print and books."* Nonetheless, 3 informants believed that the difficulty with pronunciation impedes learning to read since EFL learners' often fail to relate English sounds to spelling. Moreover, they usually mispronounce or sound specific phonemes wrongly ('wrong' according to RP – Received Pronunciation). In this context, one of the participants wrote that *"learning English sounds is an initial problem for beginners unfamiliar with English language."* In contrast, 3 respondents considered the difficulty with decoding and fluency as a major barrier to effective reading. One of these informants declared that *"most middle school pupils struggle to decode words and read them fluently, therefore they are not able to comprehend the texts."* Yet, one respondent posited that the lack of extensive reading is another problem. He explained that *"pupils seldom engage with different types of reading materials or read for enjoyment in order to develop their general reading skills."* Still, one respondent referred to the lack of critical reading skills as one of the main reading difficulties.

It should be stated that none of the participants considered the lack of phonological awareness to be a reading difficulty. On the contrary, one

participant mentioned that "*phonological awareness is not a factor affecting reading competence for most if not all EFL learners.*" She added "*some pupils may have difficulty with phonological awareness but still be able to read at an adequate level.*"

Question 2. What are the causes of these difficulties?

Table.4.31. Middle School English Inspectors' Opinions Causes of Reading Difficulties

Items	Frequency	Valid Percent
Deficiencies in basic language skills	14	53,8%
Inappropriate reading instruction	4	15,4%
Lack of phonological awareness	8	30,8%
Total	26	100%

The statistics indicate that the majority of inspectors relate reading difficulties to deficiencies in basic language skills such as poor grammar, poor listening skills, limited vocabulary, and poor reading comprehension. However, 8 inspectors viewed the lack of phonological awareness to be one of the major causes of reading difficulty. Only 4 respondents posited that inappropriate reading instruction is a possible reason for pupils' difficulty in reading. The respondents' dissatisfaction with the reading instruction can be approached in many ways. First, this instruction might not take learners' needs into account. Second, it might include methods that are too advanced for the pupils' current level, or that do not provide enough support and guidance to help the pupil understand the reading materials. Finally, it could also include instruction that does not provide enough practice opportunities.

When the participants asked to specify if there are other causes of reading difficulties. They mentioned a variety of reasons such as:

- Lack of knowledge of International Phonetic Alphabet (IPA).

- Unfamiliarity with English sentence structure.

- Lack of exposure to the target language. This causes various problems – EFL learners do not develop vocabulary, do not apply the grammar they learn, do not reinforce their reading skills.

- Little time is allocated to the teaching of English at middle school.

- EFL learners failing to put in sufficient and appropriate effort.

- Poor support from teachers and/or lesson material.

- The negative impact of "screens" (smart phones, TV, video games…etc.)

- Lack of reading in L1.

- 'Unknown' or 'likely misunderstood' cultural issues.

- Complex sentence structures.

Question 3. How could reading difficulties and deficiencies be treated?

According to the informants, reading difficulties and deficiencies can be treated in a number of ways depending on the specific nature and severity of the difficulty or deficiency. **One participant** said that

"The most effective approach to treating reading difficulties depends on learners' specific needs and characteristics. It may be also helpful to work with education experts and therapists, to develop a comprehensive plan for addressing reading difficulties."

He also suggested some effective solutions to treat reading such as:

- Designing structured lessons and activities for pupils to address specific reading skills, such as phonics, decoding, or comprehension.

- Modifying pupils' attention and behavior during reading via the usage of positive reinforcement or time management strategies.

- Improving and extending pupils reading visual span (the reader cannot cover a longer section of the text, and he/she only reads word by word, phrase by phrase, comprehension efficiency will be much reduced).

- Pupils who have significant reading difficulties may be eligible for specialized instruction and accommodations, such as modified materials or extra time to complete assignments.

- The use of assistive technologies that can help pupils with reading deficiencies, such as electronic reading aids.

A second participant posited that reading deficiencies could be treated via the following ways:

- Practice reading.

- The teachers should provide the pupils with some effective reading strategies that allow them to thoroughly read, break down the text, and understand the meaning.

- The teachers have to address critical reading skills to make read not for the sake of reading solely but rather to understand the message being addressed.

- The teachers have to tackle pronunciation as part of the reading process.

A third participant proposed that the best way to overcome reading difficulties is "frontloading." The latter refers to a strategy where pupils are introduced to the vocabulary related to the text or passage before going to comprehend the texts. A second effective way is providing pupils with more explanations about "cross-cultural issues." A third way is making pupils familiar with "complex sentence structures" through stressing the difference between

independent and dependent clauses, using the 5 WHs, using subordinating conjunctions, and fun games.

A fourth participant declared that

"I do not see dealing with perceived reading difficulties and deficiencies as something distinct from the remainder of a teaching program. As they teach, of course, an EFL teacher should become aware of what learners are struggling with (e.g. through observation and/or assessment) and find ways to support their learning. Ideally, however, a good teaching program would anticipate potential difficulties and help pupils through them before any need for special action became apparent."

That is to say, the first task of EFL teachers is to spot out learners' problems and find effective solutions to solve them. Most importantly, the curriculum designers should predict learners' difficulties before their occurrence and thus design more adequate curricula and courses.

A fifth participant postulated that EFL teachers should encourage their pupils to do more "extracurricular reading" outside the school. In addition, they should pay more attention to teach pupils' "correct pronunciation." They also should encourage their pupils to listen to native speakers through the use of some audiovisual aids.

A sixth participant emphasized that learners should be involved with "close reading" i.e., reading a text multiple times in order to analyze its details so as to make interpretations and develop a deep understanding of the text. He also assumed that the process of learning to read should be gradual. Pupils should tackle simple texts first, then move to more complex ones. Moreover, reading should be integrated with other language skills such as listening and speaking.

Only two participants stressed the importance of phonological awareness when teaching reading. They mentioned that pupils must have awareness of the

speech sounds. They should be familiar with what letters and letter combinations represent in order to move from a printed word to a spoken word (reading).

The other participants suggested the following:

- Extending the time allotted for learning English.

- Lightening the current English syllabi content.

- Improving pupils' vocabulary.

- Increasing the exposure to the native language.

- Designing relevant reading courses.

- Building up pupils' background knowledge.

- Enhancing pupils' grammar knowledge.

- Encouraging reading aloud.

- Giving more practice and guidance.

➤ **Rubric Two: Instruction in Phonics**

Question 1. Because of spelling and phonetics inconsistencies in English, will teaching middle school pupils' letter-sound correspondences help them develop their reading competence?

Table.4.32. Middle School English Inspectors Attitudes toward Teaching Phonics

Items	Frequency	Percent
It helps pupils develop their reading competence	7	46,7%
It probably helps pupils develop their reading competence	3	20%
It does not help pupils develop their reading competence	5	33,3%
Total	15	100%

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As shown in the table above, 07 respondents claimed that teaching pupils' letter- sound correspondences or phonics is really necessary for beginning readers. They pointed out that phonics instruction teaches pupils how letters (graphemes) of the alphabet are linked to sounds of the spoken language. Besides, it helps them learn how to sound out new or unfamiliar words. Otherwise speaking, if children understand these letter- sound associations, they are on the way to reading and writing words. In this respect, one of the participants confirmed that

"English does have some spelling and phonetic inconsistencies, which can make it challenging for EFL learners to learn how to read. However, teaching phonics can help learners understand the relationship between letters and sounds, which can make it easier for them to decode unfamiliar words and improve their reading fluency."

Nevertheless, 03 respondents claimed that teaching children letter-sound correspondences *probably help* them enhance their reading skills. One of these respondents wrote that

"Probably, yes. Whereas there are many irregularities in English spelling, there are also substantial regularities, and mastery of these will be useful to the learner. The key, however, is how the teaching is done. If too excessive and taught out of context, it may be demotivating; the learner may not need to spend much time on how the letter 'b' is usually pronounced /b/, for example. There may be occasion to highlight certain letter- sound correspondences, such as how the 'igh' in such words as 'high' and 'light' is pronounced.

In other words, this participant accentuated the importance of effective *teaching methods* and the *context* as prior conditions for successful reading without which the teaching of phonics will be useless. In contrast, 05 informants disagreed with the idea that phonics boosts pupils reading competence. One of them affirmed that

"No. The consistency in the phonetic alphabet in English far outweighs the inconsistencies. Letter-sound correspondence may impact reading only in a small way.

Another participant argued that

"Phonics could be somehow helpful for beginning readers meanwhile it is very hard for them to learn. I do believe that there are easier ways to develop learners reading competence such as teaching them vocabulary."

This implies that teaching phonics is just one aspect of developing reading competence, and it should be supplemented with other reading skills, such as vocabulary development and comprehension strategies. It may also be helpful to provide learners with a variety of texts to read, as this can help them develop their reading competence and build their vocabulary in a more authentic and meaningful way.

Question 2. Can a large sight-word vocabulary (the set of words that a child can immediately recognize without use of decoding strategies) compensate for poor decoding skills?

Table.4.33. Middle School English Inspectors' Attitudes toward the Use of Sight- word Vocabulary

Items	Frequency	Percent
It compensates for pupils' poor decoding skills.	7	46,7%
It probably compensates for pupils' poor decoding skills.	3	20%
It does not compensate for pupils' poor decoding skills.	5	33,3%
Total	15	100%

The findings demonstrate that 07 respondents declared that sight-word vocabulary can compensate for poor decoding skills. One of them stated that

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"A large sight-word vocabulary can be beneficial for children who have difficulty with decoding, as it can allow them to recognize and understand many words automatically, without having to rely on decoding strategies."

A second participant advocated that

"Sight-words are very helpful for the words that do not follow normal phonetic rules, and cannot be sounded out."

In simple terms, sight words are words that are recognized immediately by readers without having to use decoding skills. Pupils are often encouraged to memorize these words by sight, so they instantly recognize the words in a text without having to take the time to sound them out. Knowing words by sight helps pupils become more fluent readers. However, 03 participants were *not quite certain* that sight words can compensate for poor phonics skills. One of these informants noted that

"Possibly it can, but it does not ensure reading comprehension. An effective reading comprehension should be supported by decoding skills."

Put differently, decoding skills are also important because they allow pupils to read unfamiliar words and to understand the relationship between letters and sounds. Without good decoding skills, pupils may have difficulty reading unfamiliar words, even if they have a large sight-word vocabulary. Nevertheless, 05 informants held that sight words cannot replace poor decoding skills. One of the participants assumed that

"Sight words are important but should not replace teaching of phonics. Phonics is the foundation to achieving reading competence." Another participant argued that

"In principle, one might imagine that if really huge numbers of words became such sight words, then there might be no need of decoding skills at all. In practice, however, it is hard for me to imagine such collections of words as, say,

bin, pin, and tin and back, pack, and tack being learned as sight words without the learners gaining some awareness of the letter-sound correspondences needed for decoding skills."

This suggests that proficient reading requires both a large sight-word vocabulary and good decoding skills. While phonics instruction focuses on teaching pupils how to sound out unfamiliar words using all the letters and to practice reading accurately. In contrast, learning sight words which are identified automatically without the need to sound them out help beginning readers compensate for weak decoding skills.

Question 3. Should learners be encouraged to rely on context or on phonics to recognize words?

Table.4.34. Middle School English Inspectors' Attitudes toward the most Appropriate Strategy for Word Recognition

Items	Frequency	Percent
The use of context	5	33,3%
The use of phonics	1	6,7%
Both of them	9	60%
Total	15	100%

According to the obtained results, 5 inspectors stated that learners should be encouraged to rely on context rather than on phonics to recognize words. They declared that beginning readers face difficulties in understanding without context since it bridges the gap between the writer and the reader and prevents miscommunication of the writer's intention. Therefore, EFL teachers should raise their learners' awareness on the importance of the context and encourage them to rely on it. In this context, one informant cited that

"Using context to recognize words involves using the surrounding words and sentences to help identify the meaning of an unfamiliar word. This can be especially useful for EFL learners, as it can help them understand the meaning of

words that they may not yet know how to decode."

Put differently, context clues are very important because their effective usage leads to reading success. They give pupils an idea, or hint, of what an unfamiliar word might mean. They can also increase the pupils' vocabulary, reading comprehension, and make them better readers. Nevertheless, one participant highlighted the significance of phonics at the expense of context. He asserted that

"Phonics is an essential component of reading competence. It is important for EFL learners to develop decoding skills, as this will allow them to decode unfamiliar words that they may not be able to recognize based on context alone."

That is to say, basic decoding skills are crucial for pupils learning to read, since knowing letter patterns and their sounds allows them to correctly pronounce written words and to focus on higher-level literacy skills, like comprehension and writing. Yet, 9 participants believed that EFL learners ought to *rely on both: context and phonics* to recognize words. One of the respondents explained that

"Both. Without knowing phonics, it is hard to learn to read. Being just dependent on decoding – (1) slows down reading, hence learning, (2) takes the context out of the text. Learners should be taught both the bottom-up and the top-down approaches. Neither is more important than the other. Both should be taught simultaneously. Phonics should become second nature to good readers – operant conditioning (BF Skinner). As they become mature readers, they will apply their world view to the understanding of the text."

A second participant endorsed this view by saying:

"Yes, both. That is, they should be encouraged to rely on everything available to recognize words, including the verbal and other (e.g. picture) context as well as what they know of letter-sound correspondences (for words they know in spoken

*English, at least). Naturally, however, they cannot 'recognize' words that they
have not yet learned.*

In the light of the above passages, it can be said that successful reading
comprehension requires the interplay of both context and phonics skills. Context
is extremely important to understand a reading text since it determines the
language use to some extent. At the same time, understanding phonics is also
necessary to acquire English competency.

Question 4. Can emphasis on phonics detract from comprehension, which is the
real purpose of reading?

**Table.4.35. Middle School English Inspectors' Attitudes toward the
Relationship between Phonics and Comprehension**

Items	Frequency	Percent
Phonics detracts comprehension	7	46,7%
Phonics does not detract comprehension	4	26,7%
It depends on emphasis and how the two skills are taught	4	26,7%
Total	15	100%

The data display that 07 respondents assured that emphasis on phonics can
detract from reading comprehension. The participants postulated that while it is
important for readers to develop phonics skills, or the ability to decode
unfamiliar words, an emphasis on phonics to the exclusion of other reading skills
and strategies can detract from comprehension. Comprehension, or the ability to
understand and make sense of what is being read, is the ultimate goal of reading,
and it requires more than just the ability to decode words. One of them
commented that

"Certainly, emphasis on phonics causes detraction from comprehension."

Another participant added that

"Yes, it can. When children are so much focused on phonics dealing with aspects such as letter sound correspondences, onset rimes, and syllables. For sure children will be detracted from comprehension."

This indicates that these participants do not see any causal relationship between phonics and reading comprehension. Namely, they do not view that pupils' ability to manipulate the sounds in words correlate with later reading achievement. Nonetheless, 04 inspectors mentioned that detraction depends on how the emphasis is made. Moreover, how these two skills are taught. One of them proclaimed that

"It depends on how the emphasis is made."

A second participant posited that

"Emphasis on phonics should not happen during reading comprehension activities. These two cannot be done simultaneously."

To put it plainly, if there is too much focus on phonics, a detraction from comprehension is quite probable. Furthermore, two different skills should not be focused together. One example is phonics practice and comprehension practice. They cannot be done together. Nevertheless, 04 respondents observed that emphasis on phonics cannot detract from comprehension since these two skills are linked with each other. One of these respondents said that

"In order to comprehend a text, readers must also have strong decoding skills, be able to make connections between the letters and their sound representations, and be able to read words accurately and thus focus on the meaning of text."

Otherwise speaking, when pupils acquire an appropriate phonics instruction, they become capable of decoding words, and then as they get better at reading the words, they become fluent. The latter is the bridge from phonics to

comprehension. When pupils can recognize words and read them automatically, then comprehension can occur.

> **Rubric Three: The Relevance of Phonological Awareness Instruction**
>
> **Question 1.** Is the significance of the phoneme valued by Algerian EFL teachers?

Table.4.36. Middle School English Inspectors' Attitudes toward Phoneme Teaching

Items	Frequency	Percent
Valued	4	26,7%
Not valued	11	73,3%
Total	15	100%

The majority of respondents (11 inspectors) agreed that the significance of phoneme is not much valued by EFL teachers. One of these respondents hinted that "*phonology is almost excluded from our EFL teachers' course plans.*" A second participant clarified that

"*Whether the teaching of phonics is considered important by EFL teachers depends on individual teachers and their experience learning phonics. Some may not even be trained in phonetics and phonology.*"

A third participant elucidated that

"*EFL teachers need to use a variety of resources to help learners develop their phonological skills, such as phonetics labs, overhead transparencies, and sound boxes, etc. Unfortunately, such training materials are not available in Algerian middle schools.*"

They also noticed that phonology is often neglected when teaching English because it is not given much importance in the curricula. Besides, it can be difficult to teach and requires practice. Additionally, many EFL teachers focus on teaching pupils to recognize words by sight rather than by sound. This is

the most common approach used to teach younger learners who are just beginning to learn how to read in Algerian middle schools. But, 04 respondents believed that the significance of the phoneme is often valued by EFL teachers, as it is an important foundation for learning to read and spell.

Question 2. Is phonological awareness training necessary to gain good reading competence?

Table.4.37. Middle School English Inspectors' Attitudes toward Phonological Awareness Training

Items	Frequency	Percent
Necessary	13	86,7%
Unnecessary	2	13,3%
Total	15	100%

The results displayed that 13 participants asserted that children need explicit instruction or training in order to develop phonological awareness skills. Such training may involve a variety of activities, such as rhyme games, sound blending and segmenting activities, and phonics lessons. However, it should be clarified that two of these participants emphasized the significance of teaching phonological awareness but along with other reading skills. One of them claimed that

"Yes, as initial grounding. But it cannot be taught as a stand-alone skill."

The second participant confirmed that

"For learners at some stage, I believe that some attention to phonological awareness can be helpful, but I don't believe it should be done in the abstract, divorced from other aspects of reading."

In simple terms, phonological awareness should be taught in conjunction with the other literacy skills such as vocabulary and comprehension. Teaching phonological awareness alone is not sufficient to help pupils become proficient

readers. Nonetheless, 02 participants regarded phonological awareness training as unnecessary because of the lack of systematic curricula focusing on the explicit instruction of phonological awareness and phonics. They further noted that the literacy block should be based instead on guided reading activities.

Question 3. Is phonological awareness more a consequence of reading skill or a prerequisite?

Table.4.38. Middle School English Inspectors' Attitudes toward the Nature of Phonological Awareness

Items	Frequency	Percent
Prerequisite	7	46,7%
Consequence	1	6,7%
Both of them	6	40%
There is no causal relation	1	6,7%
Total	15	100%

The inspectors' responses to this question indicated that 07 respondents deem well developed phonological awareness as a core prerequisite for proficient reading. One of these participants corroborated that

"Phonological awareness can be seen as a prerequisite for reading, in the sense that it provides a foundation for understanding the relationship between sounds and letters and for decoding words."

This suggests pre-reading acquisition of phoneme awareness is necessary, or at least helpful for reading development. Put differently, phonological awareness precedes and predicts later reading success. Without an awareness of how spoken language can be divided into simple unit sounds the acquisition of phoneme-grapheme is doubtful. Nonetheless, 01 participant said that the type of relation between phonological awareness and reading is very different. The relation is in the other direction, such that phonological awareness may come as a

consequence of learning to read, because the process of reading instruction helps to improve phonological awareness. That is to say, phonological awareness develops mostly during the course of learning to read, and that phonological awareness is not a prerequisite for deriving benefit from beginning reading instruction. Yet, 6 respondents assumed that phonological awareness can be seen as both a prerequisite of reading skill and a consequence for reading. One of them pointed out

It can be both. It is a pre-requisite at the very initial stage of learning to read. Learners do not need to learn all the individual sounds to be able to read. Reading practice encourages learners to 'guess'. Guessing is an important skill in reading. Guessing is the consequence of reading practice.

This incorporates that attention to phonological awareness can be valuable for promoting reading for beginners, but as learners progress, their developing reading ability may help them become even more aware of common letter-sound correspondences and different words meanings. Still, one respondent postulated that *"I do not see any causal relationship between phonological awareness and reading."*

Question 4. What do you suggest to value phonological awareness as a prerequisite for reading competence?

According to the participants, there are several ways that educators can value phonological awareness as a prerequisite for reading competence:

1. Provide explicit instruction in phonological awareness skills through phonics lessons and using activities such as rhyme games, sound blending and segmenting activities.

2. Include phonological awareness into reading instruction through asking students to segment words into syllables or phonemes as they read, or to identify the sounds that different letters make.

3. Use materials that support phonological awareness development such as books with rhyming texts, games that involve identifying and manipulating sounds.

4. Use games to promote learner phonological awareness such as word building, rhyme recognition, odd word out, counting syllables, producing a rhyme- matching initial sounds; isolating an initial sound games, etc.

5. Monitor students' phonological awareness skills and to identify areas where additional support may be needed.

6. The interplay of phonetics and phonology with other components of the language such as semantics (or known as vocabulary in schools), grammar and sociolinguistics (worldview).

7. Exposure to the target language.

8. Introduce teaching English in the primary school.

By valuing phonological awareness and incorporating it into reading instruction, educators can help students develop the foundation they need to become proficient readers.

Question 5. Do you have any additional comments you would like to share?

Only 5 inspectors gave additional comments. Three participants emphasized the importance of phonological awareness to boost reading skills. One of these participants remarked that

"In order to improve pupils' reading ability, EFL teachers shall attach great importance to the phonological awareness and adopt scientific methods to train it."

A second participant reiterated that

"I sincerely hope that EFL teachers especially the ones who teach toddlers and

teenagers get trainings and conduct workshops on the importance of phonetics and phonology in foreign language learning and to put less emphasis on grammar."

A third participant restated that *"In order to support the development of phonological awareness and other reading skills, it is important for educators to provide explicit instruction and to incorporate phonological awareness into reading instruction. It is also important to provide learners with a variety of texts and opportunities to practice reading in order to help them develop their reading skills and build their vocabulary."*

In short, it is essential to recognize the importance of phonological awareness and to value it as a foundation for reading competence. Nevertheless, the other 2 participants indicated that reading is a complex process that involves a range of skills and strategies, and it is crucial for learners to develop a strong foundation in these skills in order to become proficient readers. One of these two participants insisted on the importance of vocabulary. He said that

"The improvement of reading ability is related to different reading skills, but it is more based on large vocabulary."

Besides, the second participant posited that

"Through teaching correct pronunciation, pupils can speak fluent and authentic English, improve their phonological awareness, expand their vocabulary, improve their self- confidence, and thus promote their reading ability."

That is to say, learning pronunciation is one of the most effective tools to improve pupils reading skills because it can encourage them to sound out words correctly. Bad pronunciation can lead to misunderstandings that may cause mishaps.

Conclusion

The exploratory phase of this study provided crucial insights into how phonological awareness skills are currently incorporated within Algerian middle school English language textbooks and classrooms. Analysis of the textbooks used in grades 1 through 4 revealed that while a range of phonological awareness tasks are included, there is a lack of consistency and progression in complexity or alignment with reading content across grade levels. Questionnaires completed by students and teachers further highlighted gaps between policy and practice when it comes to effectively fostering phonological skills essential to decoding, pronunciation, and overall literacy development.

Results indicated that first year pupils have favorable attitudes towards classroom reading activities but rarely voluntarily read extras to reinforce skills. By fourth year, engagement remains reasonably strong during lessons but now half frequently pursue optional materials, signaling increasing appreciation of reading's value. Nonetheless, comprehension persists as the most challenging area for both lower and upper graders. Meanwhile over a third of first years struggle even recognizing words, though this fraction falls by fourth year. Confidence likewise grows with time and practice. Nonetheless, skepticism about pronunciation exercises improving larger competencies pervades all levels.

Instructors acknowledge comprehension as the focal reading skill yet allocate little time to explicitly teaching or assessing phonological awareness. They recognize relating sounds and symbols can facilitate decoding unfamiliar words but are divided on whether to prioritize contextual versus phonics cues for recognition. Most agree overemphasizing phonics can undermine analysis. Finally, while valuing phonemes as reading prerequisites, prevailing methods still concentrate more on vocabulary development and higher literacy instead of foundational oral abilities.

Inspectors similarly identified comprehension difficulties as the major

pupil obstacle, attributable primarily to underdeveloped language skills rather than deficient phonological abilities specifically. They emphasized balancing phonics alongside other strategies like contextual clues when teaching word recognition. But inspectors disputed whether decoding skills necessarily translate to better understanding, with many blaming over drilled phonics for impeding meaning extraction. Finally, most inspectors concurred phonological awareness merits greater reinforcement through formal lessons and games to establish critical early literacy bases.

The triangulated qualitative findings reveal a pressing need to bolster introductory reading skills instruction within Algerian middle schools to ensure students gain essential phonological awareness capabilities early on. Targeted enhancement of the curriculum structure, teaching methods and learning materials could better instill these core enablers of decoding and pronunciation fluency necessary for advancing reading proficiency over time.

CHAPTER FIVE:

QUASI-EXPERIMENTAL

PHASE: DATA ANALYSIS

AND DESCRIPTION

CHAPTER FIVE: QUASI-EXPERIMENTAL PHASE: DATA ANALYSIS AND DESCRIPTION

Introduction

The current chapter focuses on the analysis of the effect of the phonological awareness instruction on TB MS EFL learners' reading competence.It presents a detailed analysis and interpretation of the quantitative data collected during the quasi-experimental phase of this study. The goal of this phase was to evaluate the role of an explicit phonological awareness intervention program in improving reading competence among Algerian EFL middle school learners.

The chapter begins by analyzing pretest and posttest measures of phonological awareness for both first- and fourth-year student experimental and control groups. Overall score patterns are first summarized, followed by fine-grained descriptive and inferential analyses itemizing performance on specific tasks like phoneme blending. These data reveal the isolated impact of the phonological awareness training.

Reading competence components including word recognition, fluency, and comprehension are then examined through similar comparative pretest/posttest analyses. Score changes quantify transfers of enhanced phonological skills into core literacy metrics. Finally, bivariate correlational statistics describe interrelationships and interdependencies between the phonological awareness intervention outcomes and reading gains.

The quantitative results provide robust evidence regarding the research questions on how targeted phonological awareness instruction impacts foundation literacy skills essential for Algerian adolescents' academic trajectories. Findings yield actionable data for informing efforts to better scaffold these critical competencies often overlooked by conventional curricula yet proven amenable to purposeful cultivation. By detailing both overall and skills-specific student score changes with and without the specialized training, this chapter illuminates precise pathways for unlocking student potential through

decoding proficiency.

5.1.   Phonological Awareness Tasks Analysis: First Year Level

The analysis of phonological awareness tasks, reading competence tasks, and reading comprehension tasks' scores was conducted through a paired samples t-test. The t-test is used when the same group of participants is evaluated under two different conditions, or when two matched groups are evaluated at two different time points (e. g., pre-test and post-test score with an intervention administered between the two time points) (Dash, 2013, Ross and Willson, 2018).

The phonological awareness intervention administered between pretest and posttest comprised a 3-week training program tailored to the developmental level of the first-year middle school participants. Pupils in the experimental group received explicit instruction targeting the continuum of phonological awareness skills, beginning with basic rhyming and syllable tasks before graduating towards complex phoneme manipulation challenges that align with research on optimal sequencing (Chard and Dickson, 1999).

The 20-minute sessions emphasized multisensory engagement via auditory songs, verbal sound play, visual supports, and orthographic decoding practice. Control groups underwent regular English literacy curriculum without specialized phonological activation. The following sections detail specific empirical patterns discovered.

The normality of distribution was evaluated and proved for each sample group separately, by applying the One-Sample Kolmogorov-Serminov Test (as shown below).

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Table.5.1. The Kolmogorov-Smirnov Test of Normality for First Year Phonological Awareness Tasks

Phonological Awareness Tasks	Kolmogorov-Smirnov[a]		
	Statistic	Df	Sig.
Experimental Group Pretest	,097	20	,200*
Experimental Group Posttest	,122	20	,200*
Control Group Pretest	,107	20	,200*
Control Group Posttest	,148	20	,200*

Table.5.2. The Kolmogorov-Smirnov Test of Normality for First Year Reading Competence Tasks

Reading competence Tasks		Kolmogorov-Smirnov[a]		
		Statistic	Df	Sig.
Word Recognition	EXPT Pretest	,106	20	,200*
	EXPT Posttest	,134	20	,200*
Reading Fluency	EXPT Pretest	,183	20	,078
	EXPT Posttest	,186	20	,069
Word Recognition	CTRL Pretest	,131	20	,200*
	CTRL Posttest	,172	20	,122
Reading Fluency	EXPT Pretest	,179	20	,092
	EXPT Posttest	,186	20	,068

Table.5.3. The Kolmogorov-Smirnov Test of Normality for First Year Reading Comprehension Tasks

Phonological Comprehension Tasks	Kolmogorov-Smirnov[a]		
	Statistic	Df	Sig.
Experimental Group Pretest	,182	20	,083
Experimental Group Posttest	,169	20	,137
Control Group Pretest	,105	20	,200*
Control Group Posttest	,124	20	,200*

The Kolmogorov-Smirnov tables above show that the **p-values** of first year experimental **(EXPT)** and control **(CTRL)** groups' scores were higher than the alpha level **(0,05)** for all the tasks. This means that the distribution of the data was normal and the test was a valid research tool.

The following section sheds light on the obtained results about the effectiveness of explicit PA instruction in developing the participants' reading skills. Then, it compares and contrasts these results.

5.1.1. Overall Analysis of Phonological Awareness Scores

This section provides a summary of the descriptive statistics of the phonological awareness pretest and posttest scores of first year experimental and control groups.

Table.5.4. Descriptive Statistics of First Year EXPT and CTRL Groups' Phonological Awareness Tasks Pretest Scores

Group	Mean	N	Std. Deviation	T	Sig. (2 tailed)
Experimental Group Pretest	41,9000	20	13,28989	-1.642	.117
Control Group Pretest	47,0000	20	8,09158		

The obtained results reveal that first year experimental and control groups' phonological awareness pre-test scores had a **t-value of -1.64**. This implies that there was no significant difference between the pre-test scores of the experimental and control groups. Moreover, the significance level was **(P=0.11)**, which was greater than the conventional alpha level of **0.05**, indicating that the difference was not statistically significant. The overall PA post-test scores obtained for both groups on the same phonological awareness pre-test measures demonstrated significant differences, as shown in table below.

Table.5.5. Descriptive Statistics of First Year EXPT and CTRL Groups' Phonological Awareness Posttest Scores

Group	Mean	N	Std. Deviation	T	Sig. (2 tailed)
Experimental Group Posttest	58,2500	20	10,75994	3,663	,002
Control Group Posttest	48,0000	20	5,99122		

Obviously, the participants in the experimental group significantly outperformed their peers in the control group **(t =3.66, P = .002)** in the overall PA post-test score, suggesting that explicit PA instruction was considerably more beneficial and effective in building first year pupils' PA skills than formal classroom instruction. The significant PA gain the experimental group received from the PA training became more transparent when the PA scores in the pretest and posttest were compared in detail, as demonstrated in the following section.

5.1.2. A Detailed Analysis of Phonological Awareness Scores

This part provides a detailed analysis of first year experimental group phonological awareness scores.

5.1.2.1. Experimental Group's Scores Analysis

A- Descriptive Analysis

Table.5.6. Descriptive Statistics of First Year Experimental Group Phonological Awareness Scores

Phonological Awareness Tasks	Test	N	Minimum Score	Maximum Score	Mean	Std. Deviation
Rhyming and Alliteration	EXPT Pretest	20	1,00	8,00	4,6000	2,11262
	EXPT Posttest	20	3,00	10,00	7,2500	1,99671

Sentence Segmentation		**EXPT Pretest**	20	1,00	9,00	5,2000	2,37531
		EXPT Posttest	20	2,00	10,00	6,9500	2,13923
Syllable Awareness	**Segmentation**	**EXPT Pretest**	20	,00	10,00	5,2000	3,12208
		EXPT Posttest	20	3,00	10,00	7,2500	1,80278
	Blending	**EXPT Pretest**	20	2,00	9,00	6,5500	2,01246
		EXPT Posttest	20	4,00	10,00	7,5500	1,77334
Onset Rime Awareness	**Segmentation**	**EXPT Pretest**	20	1,00	8,00	5,1500	1,69442
		EXPT Posttest	20	5,00	9,00	7,3500	1,38697
	Blending	**EXPT Pretest**	20	3,00	9,00	6,3000	1,75019
		EXPT Posttest	20	5,00	10,00	7,8000	1,60918
Phoneme Awareness	**Segmentation**	**EXPT Pretest**	20	,00	8,00	3,6500	2,49789
		EXPT Posttest	20	3,00	10,00	6,5000	1,90567
	Blending	**EXPT Pretest**	20	2,00	9,00	5,2500	2,12442
		EXPT Posttest	20	3,00	10,00	7,4000	1,90291

Table.5.6 displays the data obtained from a descriptive analysis of first year experimental group's phonological awareness scores before and after PA treatment. The data reveal that the mean score of rhyming and alliteration task

increased from **(M=4.60, SD=2.11)** to **(M=7.25, SD=1.99).** Similarly, the mean score of the sentence segmentation task leveled up from **(M=5.20, SD= 2.37)** to **(M=6.95, SD=2.13).** Comparably, the mean scores of the syllable awareness tasks improved from **(M=5.20, SD=3.12)** to **(M=7.25, SD=1.80)** for segmentation and from **(M=6.55, SD=2.01)** to **(M=7.75, SD=1.77)** for blending. Correspondingly, the mean scores of onset rime awareness tasks augmented from **(M=5.15, SD=1.69)** to **(M=7.35, SD=1.38)** for segmentation and from **(M=6.30, SD=1.75)** to **(M=7.80, SD=1.60)** for blending. Finally, the mean scores of the phoneme awareness tasks boosted from **(M=3.65, SD=2.49)** to **(M=6.50, SD=1.90)** for segmentation and from **(M=5.25, SD=2.12)** to **(M=7.40, SD=1.90)** for blending. The data also reveal that the blending tasks scores were higher than segmentation scores for syllable, onset rime, and phoneme skills. This suggests that blending tasks are easier for first year pupils in comparison to segmentation tasks. To sum up, the data show that the intervention had a positive impact on first year experimental group's phonological awareness skills, as evidenced by the increase in mean scores for all tasks. Nevertheless, an inferential analysis was performed in order to draw and measure the reliability of conclusions about the population.

B- Inferential Analysis

As explained before the paired sample t-test has two competing hypotheses, the null hypothesis and the alternative hypothesis. Therefore, two hypotheses were formulated:

H⁰: There will be no difference between the pretest and posttest phonological awareness scores of the EXPT group.

H¹: There will be a difference between the pretest and posttest phonological awareness scores of the EXPT group.

Table.5.7. Paired Samples Test of First Year Experimental Group Phonological Awareness Scores

Phonological Awareness Tasks		Paired Differences			95% Confidence Interval of the Difference		T	Df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper			
Rhyming and Alliteration	EXPT-Pretest EXPT-Posttest	2,65000	1,56525	,35000	1,91744	3,38256	7,571	19	,000
Sentence Segmentation	EXPT-Pretest EXPT-Posttest	1,75000	1,58529	,35448	1,00806	2,49194	4,937	19	,000
Syllable Segmentation	EXPT-Pretest EXPT-Posttest	2,05000	2,30503	,51542	,97121	3,12879	3,977	19	,001
Syllable Blending	EXPT-Pretest EXPT-Posttest	1,20000	1,47256	,32927	,51082	1,88918	3,644	19	,002
Onset Rime Segmentation	EXPT-Pretest EXPT-Posttest	2,20000	1,23969	,27720	1,61981	2,78019	7,936	19	,000
Onset Rime Blending	EXPT-Pretest EXPT-Posttest	1,50000	1,14708	,25649	,96315	2,03685	5,848	19	,000

Phoneme Segmentation	**EXPT-Pretest EXPT-Posttest**	2,85000	,81273	,18173	2,46963	3,23037	15,682	19	,000
Phoneme Blending	**EXPT-Pretest EXPT-Posttest**	2,15000	1,18210	,26433	1,59676	2,70324	8,134	19	,000

The Paired Samples Test shows that there were significant differences between first year experimental group's pre-test and post-test scores for all phonological awareness tasks. The **p-values** for all tasks were less than the conventional significance level (**0.05**), indicating that the differences were statistically significant. The largest difference was observed in the phoneme segmentation tasks, with a mean difference of (**M= 2.85, SD=0.81**) and a (**p-value**=**0.000**). The smallest difference was observed in the phoneme blending tasks, with a mean difference of (**M=1.2, SD=2.15**) and a (**p-value**=**0.002**). Briefly, the data implies that first year experimental group's phonological awareness skills improved significantly after the PA treatment.

5.1.2.2. Control Group's Scores Analysis

A- Descriptive Analysis

Table.5.8. Descriptive Statistics of First Year Control Group Phonological Awareness Scores

Phonological Awareness Tasks	Test	N	Minimum Score	Maximum Score	Mean	Std. Deviation
	CTRL Pretest	20	1,00	8,00	5,2000	2,21478
	CTRL	20	1,00	9,00	5,3000	2,43007

Rhyming and Alliteration		Posttest					
Sentence Segmentation		CTRL Pretest	20	3,00	10,00	6,4000	2,34857
		CTRL Posttest	20	3,00	10,00	6,4500	1,90498
Syllable Awareness	Segmentation	CTRL Pretest	20	0,00	10,00	5,2000	2,68720
		CTRL Posttest	20	3,00	9,00	5,5500	1,82021
	Blending	CTRL Pretest	20	1,00	9,00	5,6000	2,18608
		CTRL Posttest	20	4,00	10,00	6,8500	1,92696
Onset Rime Awareness	Segmentation	CTRL Pretest	20	2,00	10,00	6,4000	2,18608
		CTRL Posttest	20	3,00	10,00	6,5000	2,03909
	Blending	CTRL Pretest	20	4,00	10,00	7,5500	1,84890
		CTRL Posttest	20	4,00	10,00	7,3000	2,10513
Phoneme Awareness	Segmentation	CTRL Pretest	20	0,00	9,00	4,7000	2,81163
		CTRL Posttest	20	0,00	10,00	5,2500	2,61323
	Blending	CTRL Pretest	20	1,00	9,00	4,6500	2,58080
		CTRL Posttest	20	2,00	8,00	4,8000	2,01573

Table.5.8 provides descriptive data of first year control group's phonological awareness pre-test and post-test mean scores. For the rhyming and alliteration task, the control group's mean score increased slightly from (**M=5.20,**

SD=2.21) on the pretest to **(M=5.30, SD=2.43)** on the posttest. For the sentence segmentation task, the control group's mean score improved from **(M=6.40, SD=2.34)** on the pretest to **(M=6.45, SD=1.90)** on the posttest. For the syllable awareness tasks, the control group's mean score raised from **(M=5.20, SD=2.68)** on the pretest to **(M=5.55, SD=1.82)** on the posttest for segmentation and from **(M=5.60, SD=2.18)** on the pretest to **(M=6.85, SD=1.92)** on the posttest for blending. For the onset-rime awareness tasks, the control group's mean score increased from **(M=6.40, SD=2.18)** on the pretest to **(M=6.50, SD=2.03)** on the posttest for segmentation. However, it decreased from **(M=7.55, SD=1.84)** to **(M=7.30, SD=2.10)** for blending. For the phoneme awareness tasks, the control group's mean score elevated from **(M=4.70, SD=2.81)** on the pretest to **(M=5.25, SD=2.61)** on the posttest for segmentation and from **(M=4.65, SD=2.58)** to **(M=4.80, SD=2.01)** for blending. In brief, the data suggest that the control group's scores did not increase significantly from pretest to posttest for most tasks. Moreover, there were slight decreases in scores for some tasks such as onset rime blending task. Therefore, it was necessary to perform an inferential analysis to check out whether the control (CTRL) group scores are statically significant.

B- Inferential Analysis

The null hypothesis and the alternative hypothesis were formulated as follows:

H⁰: There will be no difference between the pretest and posttest phonological awareness scores of the CTRL group.

H¹: There will be a difference between the pretest and posttest phonological awareness scores of the CTRL group.

Table.5.9. Paired Samples Test of First Year Control Group Phonological Awareness Scores

Phonological Awareness Tasks		Paired Differences					T	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Rhyming and Alliteration	CTRL-Pretest CTRL-Posttest	,10000	1,86096	,41612	-,77095	,97095	,240	19	,813
Sentence Segmentation	CTRL-Pretest CTRL-Posttest	,05000	2,11449	,47281	-,93961	1,03961	,106	19	,917
Syllable Segmentation	CTRL-Pretest CTRL-Posttest	,35000	1,98083	,44293	-,57706	1,27706	,790	19	,439
Syllable Blending	CTRL-Pretest CTRL-Posttest	-,05000	2,41650	,54035	-1,18096	1,08096	-,093	19	,927
Onset Rime Segmentation	CTRL-Pretest CTRL-Posttest	,10000	1,55259	,34717	-,62663	,82663	,288	19	,776
Onset Rime Blending	CTRL-Pretest CTRL-Posttest	-,25000	1,86025	,41596	-1,12062	,62062	-,601	19	,555

Phoneme Segmentati on	**CTRL- Pretest CTRL- Posttest**	,55000	2,41650	,54035	-,58096	1,68096	1,018	19	,322
Phoneme Blending	**CTRL- Pretest CTRL- Posttest**	,15000	1,46089	,32667	-,53372	,83372	,459	19	,651

Table.5.9 exhibits the results obtained from a paired samples t-test of first year control group's phonological awareness scores. The data show that most tasks' mean scores increased from pre-test to post-test; however, the difference was not statistically significant such as rhyming and alliteration task **(P=0.813)**, sentence segmentation task **(P=0.917)**, syllable segmentation task **(P=0.439)**, onset-rime segmentation task **(P=0.776)**, phoneme segmentation task **(P=0.322)**, phoneme blending task **(P= 0.651)**. Only onset-rime blending task's mean score reduced slightly from pre-test to post-test, but the difference was not statistically significant **(P=0.651)**. The test results indicate that there was no significant difference between first year control group's pre-test and post- test scores for all the tasks of phonological awareness. This suggests that first year control group did not experience a significant change in phonological awareness scores. In other words, this indicates the unproductiveness of the traditional way of reading instruction.

5.1.3. Overall Analysis of Reading Competence Scores

This section provides a summary of the descriptive statistics of reading competence pre-test and post-test scores of first year experimental and control groups.

**Table.5.10. Descriptive Statistics of First Year EXPT and CTRL Groups'
Word Recognition Pretest and Posttest Scores**

Group	Mean	N	Std. Deviation	T	Sig. (2 tailed)
Experimental Group Pretest	22,45	20	5,276	2,076	,052
Control Group Pretest	19,2500	20	5,23023		
Experimental Group Posttest	27,0000	20	5,98243	3,314	,004
Control Group Posttest	21,7500	20	4,47066		

Table.5.10 provides descriptive statistics of first year experimental (EXPT) and control (CTRL) groups' word recognition pre-test and post-test scores. For the pre-test, the experimental group's mean score was (**M=22.45, SD=5.27**), however, the control group's pre-test mean score was (**M= 19.25, SD=5.23**). The t-test result shows a **p-value** of **0.052**, implying that there is no statistically significant difference between the pre-test scores of the two groups. For the post-test, the experimental group's mean score was (**M=27.00**, **SD=5.98**), nonetheless, the control group's posttest mean score was (**M=21.75, SD=4.47**). The t-test result displays a **p-value** of **0.004**, suggesting that there is a statistically significant difference between the posttest scores of the two groups. The results thus indicate that the intervention had a beneficial effect on first year experimental group compared to the control group.

**Table.5.11. Descriptive Statistics of First Year EXPT and CTRL Groups'
Reading Fluency Pretest and Posttest Scores**

Group	Mean	N	Std. Deviation	T	Sig. (2 tailed)
Experimental Group Pretest	159.9415	20	94.78470	3,320	,004
Control Group Pretest	148.5755	20	92.82184		
Experimental Group Posttest	191.8230	20	108.78652	6,649	,000
Control Group Posttest	151.4250	20	95.59672		

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According to table.5.11, the results of two samples t-test reveal that first year experimental and control groups had significant increase in reading fluency mean scores from pre-test to post-test. Apparently, the experimental group's participants performed better than their counterparts in the control group on both pre- and post-test. The experimental group **(M=159.94, SD=94.78)** scored higher than the control group **(M=148.57, SD=92.82)** on the pre-test. The data show that the **p-value** was **0.004**. This suggests that the difference is statically significant. Similarly, the mean score for the experimental group **(M=191.82, SD=108.7)** was significantly higher than that of the control group **(M=151.42, SD=95.59)** on the post-test, with a t-value of a **p-value** of **0.000**.

5.1.4. A Detailed Analysis of Reading Competence Scores

5.1.4.1. Experimental Group 's Scores Analysis

A- Descriptive Analysis

Table.5.12. Descriptive Statistics of First Year Experimental Group Reading Competence Scores

Reading Competence Tasks	Mean	N	Std. Deviation
Word Recognition EXPT Pretest	10,7000	20	2,69698
Word Recognition EXPT Posttest	13,2000	20	2,82097
Pseudo-word Recognition EXPT Pretest	11,7500	20	3,17681
Pseudo-word Recognition EXPT Posttest	13,8000	20	3,27028
Reading Fluency EXPT Pretest	159.9415	20	94.78470
Reading Fluency EXPT Posttest	191.8230	20	108.78652

Table.5.12 illustrates first year pre-test and post-test mean scores of word recognition, pseudo-word recognition and reading fluency tasks. Regarding word recognition, the mean pre-test score was **(M=10.70, SD=2.69),** however, the mean post- test score was **(M=13.20, SD=2.82)**. This suggests that first year experimental group's respondents developed their word recognition skills

because their mean score increased from the pretest to the posttest. Regarding pseudo-word recognition, the pre-test mean score was (**M=11.75, SD=3.17**), nevertheless, the pre-test mean score was (**M=13.80, SD=3.27**). This indicates that the first-year treatment group also improved their pseudo- word recognition skills, as their mean score increased from pre-test to post-test. Regarding reading fluency, the mean score of the pre-test was (**M=159.94, SD=94.78**), whereas the mean score of the post-test was (**M=191.82, SD=108.79**). This means that the experimental group's participants also enhanced their reading fluency skills, as their mean score increased from the pre-test to the post-test.

B- Inferential Analysis

The null hypothesis and the alternative hypothesis were formulated as follows:

Hº: There will be no difference between the pretest and posttest reading competence scores of the EXPT group.

H¹: There will be a difference between the pretest and posttest reading competence scores of the EXPT group.

Table.5.13. Paired Samples Test of First Year Experimental Group Reading Competence Scores

Reading Competence Tasks		Paired Differences					T	Df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		T	Df	Sig. (2-tailed)
					Lower	Upper			
Word Recognition	**EXPT-Pretest EXPT-Posttest**	2,50000	1,14708	,25649	1,96315	3,03685	9,747	19	,000

Pseudo-word Recognition	**EXPT-Pretest EXPT-Posttest**	2,05000	1,60509	,35891	1,29879	2,80121	5,712	19	,000
Reading Fluency	**EXPT-Pretest EXPT-Posttest**	31.88150	19.47115	4.35388	22.76872	40.99428	7,323	19	,000

Table.5.13 demonstrates the results obtained from a paired samples t-test of first year experimental group's reading competence scores. The data indicate that there was a significant improvement in participants' performance from the pre-test to the post-test in all reading competence tasks. The mean difference of word recognition between the mean value in experimental and control groups was (**M=2.50, T=9.74**). The mean difference of pseudo-word tasks was (**M=2.05, T= 5.71),** whereas reading fluency's mean absolute difference was (**M=31.88, T=7.32**). The data also reveals that the alpha level for all reading competence tasks was **.000**. This suggests that the results were statistically significant. In short, the findings confirm that the PA training had affected positively the participants' word recognition and reading fluency skills.

5.1.4.2. Control Group's Scores Analysis

A- Descriptive Analysis

Table.5.14. Descriptive Statistics of First Year Control Group Reading Competence Scores

Reading Competence Tasks	**Mean**	**N**	**Std. Deviation**
Word Recognition CTRL Pretest	10,4000	20	3,84434
Word Recognition CTRL Posttest	11,7000	20	3,51089

Pseudo-word Recognition CTRL Pretest	8,8500	20	2,83354
Pseudo-word Recognition CTRL Posttest	10,0500	20	2,85574
Reading Fluency CTRL Pretest	148.5755	20	92.82184
Reading Fluency CTRL Posttest	151.4250	20	95.59672

Table.5.14 shows pre-test and post-test mean scores of first year control group's reading competence skills. For word recognition, the mean score increased from pre-test **(M=10.40, SD=3.84)** to post-test **(M=11.70, SD=3.51),** indicating an improvement in this skill. Similarly, for pseudo-word recognition, the mean score increased from pre-test **(M=8.85, SD=2.83)** to post-test **(10.05, SD=2.85)**, indicating an improvement in this skill as well. For reading fluency, the mean score increased slightly from pre-test **(M=148.57, SD=92.82)** to post-test **(M=151.42, SD=95.59)**, but an inferential analysis was conducted in order to check out whether these scores are statically significant.

B- Inferential Analysis

The null hypothesis and the alternative hypothesis were formulated as follows:

Hº: There will be no difference between the pretest and posttest reading competence scores of the CTRL group.

H¹: There will be a difference between the pretest and posttest reading competence scores of the CTRL group.

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Table.5.15. Paired Samples Test of First Year Control Group Reading Competence Scores

Reading Competence Tasks		Paired Differences					T	Df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Word Recognition	**CTRL-Pretest CTRL-Posttest**	1,30000	2,17885	,48720	,28027	2,31973	2,668	19	,015
Pseudo-word Recognition	**CTRL-Pretest CTRL-Posttest**	1,20000	2,62779	,58759	-,02984	2,42984	2,042	19	,055
Reading Fluency	**CTRL-Pretest CTRL-Posttest**	2.84950	13.65794	3.05401	-3.54261	9.24161	,933	19	,363

Table.5.15 shows results obtained from a paired samples t-test of first year control group's reading competence scores. For word recognition task, there was a significant improvement in performance, as indicated by a mean difference of **(M=1.3, P=0.015).** For pseudo-word recognition task, the mean difference was **(M=1.2, P=0.055).** Nevertheless, the difference was not statistically significant at the alpha level (**0.05**). Similarly, for reading fluency task, there was no significant difference between pre- and post-test scores, as indicated by the mean difference of **(M=2.84, P= 0.363).** The lack of significant improvement on both skills suggests that formal classroom instruction did not have a measurable effect on this aspect of reading competence.

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5.1.5. Overall Analysis of Reading Comprehension Scores

This section describes the results obtained from first year experimental and control groups' reading comprehension pretest and posttest scores.

Table.5.16. Descriptive Statistics of EXPT and CTRL Groups' Reading Comprehension Pretest and Posttest Scores

Group	Mean	N	Std. Deviation	T	Sig. (2 tailed)
Experimental Group Pretest	39,3000	20	7,83447		,001
Control Group Pretest	30,9500	20	9,19654	3,823	
Experimental Group Posttest	42,4500	20	5,83524	4,617	,000
Control Group Posttest	33,4500	20	8,32545		

Table.5.16 shows the statistical data describing the pre- and post-test scores of reading comprehension of first year experimental and the control groups. Regarding pre- test scores, the experimental group had a higher mean score **(M = 39.3, SD = 7.83)** than the control group **(M = 30.95, SD = 9.19).** The difference in means between the two groups was statistically significant as indicated by a **t-test value** of **3.82** and a **p-value** of **0.001**. Regarding post-test scores, the mean score of the experimental group **(M = 42.45, SD = 5.83)** was higher than that of the control group **(M = 33.45, SD = 8.32).** The difference in means between the two groups was also statistically significant as indicated by a **t-test value** of **4.617** and a **p-value** of **0.000.** Taken together, these results indicate that first year experimental group performed better than the control group on the pre- and post-tests. In addition, the experimental intervention seems to have had a positive effect on first year experimental group's reading comprehension.

5.1.6. A Detailed Analysis of Reading Comprehension Scores

This part provides a detailed analysis of first year experimental group

reading comprehension scores.

5.1.6.1. Experimental Group 's Scores Analysis

A- Descriptive Analysis

Table.5.17. Descriptive Statistics of First Year EXPT Group Reading Comprehension Pretest and Posttest Scores

Group	Mean	N	Std. Deviation
Experimental Group Pretest	39,3000	20	7,83447
Experimental Group Posttest	42,4500	20	5,83524

Table.5.17 provides descriptive statistics of first year experimental group reading comprehension pre-test and post-test scores. The results indicate that the experimental group mean pre-test score was (**M=39.30, SD= 7.83**), however, the mean post-test score was (**M=42.45, SD=5.83**). The results thus show that the experimental group performance in reading comprehension was much better than that of the control group. This suggests that the intervention had a positive impact on the treatment group's reading comprehension. Nevertheless, further inferential analysis would be necessary to draw any meaningful conclusions about the effectiveness of the intervention.

B- Inferential Analysis

The null hypothesis and the alternative hypothesis were formulated as follows:

H⁰: There will be no difference between the pretest and posttest reading comprehension scores of the EXPT group.

H¹: There will be a difference between the pretest and posttest reading comprehension scores of the EXPT group.

Table.5.18. Paired Samples Test of First Year EXPT Group Reading Comprehension Scores

Reading Comprehension Tasks		Paired Differences					T	Df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Reading Comprehension	EXPT-Pretest EXPT-Posttest	3,15000	2,47673	,55381	1,99085	4,30915	5,688	19	,000

Table.5.18 describes the results obtained from a paired sample t-test conducted on first year experimental group's reading competence scores. It can be seen that the mean score of the experimental group is **(M=3.15, SD=2.47).** The **t-value** is **5.68** and the **p- value** is **0.00**. This suggests that the observed difference in means was statistically significant, and thus the alternative hypothesis can be retained. Therefore, we can conclude that first year experimental group reading comprehension has significantly fostered after the intervention.

5.1.6.2. Control Group's Scores Analysis

A- Descriptive Analysis

Table.5.19. Descriptive Statistics of First Year CTRL Group Reading Comprehension Pretest and Posttest Scores

Group	Mean	N	Std. Deviation
Control Group Pretest	30,9500	20	9,19654
Control Group Posttest	33,4500	20	8,32545

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Table.5.19 illustrates the descriptive statistics of first year control group's reading comprehension pre-test and post-test scores. The data reveal that the control (CTRL) group's participants performed better in the post-test **(M=33.45, SD=8.33)** in comparison with pre-test **(M=30.95, SD= 9.20).** This implies that first year control (CTRL) group reading comprehension boosted somehow over time.

B- Inferential Analysis

The null hypothesis and the alternative hypothesis were formulated as follows:

Hº: There will be no difference between the pretest and posttest reading comprehension scores of the CTRL group.

H¹: There will be a difference between the pretest and posttest reading comprehension scores of the CTRL group.

Table.5.20. Paired Samples Test of First Year CTRL Group Reading Comprehension Scores

Reading Comprehension Tasks		Paired Differences					T	Df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Reading Comprehension	CTRL-Pretest CTRL-Posttest	2,50000	3,87298	,86603	,68739	4,31261	2,887	19	,009

The results on table.5.20 showed that first year control group's reading comprehension scores enhanced by mean difference of **(M=2.5, SD=3.87)** from the pre- test to the post-test. To determine whether this improvement was

statistically significant, a paired samples t-test was performed. The t-**value** obtained was **2.88**. The corresponding **p-valu**e was found to be **0.009**.

In simpler terms, the data suggest that there was a significant difference in reading comprehension scores between the pre-test and post-test for the control group.

5.1.7. Pearson's Correlation Analysis of First Year Experimental Group Reading Competence Skills Scores

Table.5.21. Pearson's Correlation Test of First Year Experimental Group Reading Competence Skills Scores

Sig. (2-tailed)	Phonological Awareness Skills	Word Recognition Skills	Reading Fluency Skills	Reading Comprehension Skills
Phonological Awareness Skills	1	,955**	,871**	,883**
		,000	,000	,000
	20	20	20	20
Word Recognition Skills	,955**	1	,864**	,893**
	,000		,000	,000
	20	20	20	20
Reading Fluency Skills	,871**	,864**	1	,883**
	,000	,000		,000
	20	20	20	20
Reading Comprehension Skills	,883**	,893**	,883**	1
	,000	,000	,000	
	20	20	20	20

**. Correlation is significant at the 0.01 level (2-tailed).

Table.5.21 illustrates a bivariate Pearson correlation analysis of first year experimental group's phonological awareness, word recognition, reading fluency, and reading comprehension scores. The statistics show that the correlation between phonological awareness and word recognition is strong

(r=0.95). Similarly, the data reveal that phonological awareness is strongly correlated with reading fluency **(r=0.88)** and with reading comprehension **(r=0.89)**. Furthermore, the results indicate that the correlation coefficient between word recognition and reading comprehension is **(r=0.89)**.

Correspondingly, reading fluency seems to be highly correlated with reading comprehension **(r = 0.88)**. Nonetheless, the correlation between word recognition and reading fluency remains relatively weaker in comparison with other skills. These findings are consistent with the idea that these skills are important for reading competence.

5.2. Phonological Awareness Tasks Analysis: Fourth Year Level

A normality test was used to check whether the data sample follows a normal distribution or not. In general, if the **p-value** is greater than **0.05** (the significance level), we fail to reject the null hypothesis of normality, and if the p-value is less than **0.05**, we reject the null hypothesis and conclude that the sample is not normally distributed.

The tables below show the results of Kolmogorov-Smirnov tests of normality for phonological awareness, reading competence, and reading comprehension tasks in both experimental and control groups.

Table.5.22. The Kolmogorov-Smirnov Test of Normality for Fourth Year Phonological Awareness Tasks

Phonological Awareness Tasks	Kolmogorov-Smirnov[a]		
	Statistic	df	Sig.
Experimental Group Pretest	,079	20	,200*
Experimental Group Posttest	,079	20	,200*
Control Group Pretest	,158	20	,200*
Control Group Posttest	,079	20	,200*

Table.5.23. The Kolmogorov-Smirnov Test of Normality for Fourth Year Reading Competence Tasks

Reading Competence Tasks		Kolmogorov-Smirnov[a]		
		Statistic	Df	Sig.
Word Recognition	EXPT Pretest	,161	20	,184
	EXPT Posttest	,100	20	,200*
Reading Fluency	EXPT Pretest	,183	20	,077
	EXPT Posttest	,186	20	,069
Word Recognition	CTRL Pretest	,115	20	,200*
	CTRL Posttest	,127	20	,200*
Reading Fluency	EXPT Pretest	,160	20	,193
	EXPT Posttest	,188	20	,061

Table.5.24. The Kolmogorov-Smirnov Test of Normality for Fourth Year Reading Comprehension Tasks

Reading Comprehension Tasks	Kolmogorov-Smirnov[a]		
	Statistic	Df	Sig.
Experimental Group Pretest	,121	20	,200[*]
Experimental Group Posttest	,142	20	,200[*]
Control Group Pretest	,105	20	,200[*]
Control Group Posttest	,121	20	,200[*]

The Kolmogorov-Smirnov tables above illustrate that both fourth year experimental and control groups obtained scores with **p-values** greater than the conventional alpha level (**0.05**) in all tasks. This implies that the null hypothesis of normality could be retained and thus the data was normally distributed.

The coming section describes and then contrasts the obtained results about the impact of phonological awareness training in fostering fourth year pupils' reading skills.

5.2.1. Overall Analysis of Phonological Awareness Scores

This section describes fourth year experimental and control groups' phonological awareness tasks' pretest scores.

Table.5.25. Descriptive Statistics of Fourth Year EXPT and CTRL Groups' Phonological Awareness Pretest Scores

Group	Mean	N	Std. Deviation	T	Sig. (2 tailed)
Experimental Group Pretest	47,7000	20	10,84872	-,513	,614
Control Group Pretest	49,0500	20	7,39470		

Table.5.25 describes phonological awareness pre-test scores of fourth year experimental (EXPT) and control (CTRL) groups. The data exhibit that the experimental group's mean pre-test score was (**M=47.7, SD=10.85**), however, the control group's mean pre-test score was (**M=49.05, SD=7.39**). The t-value was found to be (**T= -0.513**), while the p-value was (**P=0.614**). These results imply that there is a small difference in means between the two groups, but this difference is not statistically significant.

Table.5.26. Descriptive Statistics of Fourth Year EXPT and CTRL Groups' Phonological Awareness Posttest Scores

Group	Mean	N	Std. Deviation	T	Sig. (2 tailed)
ExperimentalGroup Posttest	58,8500	20	10,09051		
Control Group Posttest	49,5500	20	5,06250	3,808	,001

Based on the data in table 5.26, it can be noticed that the mean post-test score for the experimental group (**M=58.85, SD=10.09**) was significantly higher than that of the control group (**M=49.55, SD=5.06**). The obtained t-value was (**T= 3.80**), and the p-value was (**P= 0.001**). Such results indicate that the PA training had a positive impact on fourth -year experimental group's phonological

awareness scores unlike the control group, which did not receive the intervention.

5.2.2. A Detailed Analysis of Phonological Awareness Scores

This part provides a detailed analysis of fourth year experimental group phonological awareness scores.

5.2.2.1. Experimental Group 's Scores Analysis

A- Descriptive Analysis

Table.5.27. Descriptive Statistics of Fourth Year Experimental Group Phonological Awareness Scores

Phonological Awareness Tasks		Test	N	Minimum Score	Maximum Score	Mean	Std. Deviation
Rhyming and Alliteration		**EXPT Pretest**	20	2,00	2,00	6,0000	2,33959
		EXPT Posttest	20	3,00	3,00	7,0500	2,01246
Sentence Segmentation		**EXPT Pretest**	20	2,00	2,00	5,4500	2,11449
		EXPT Posttest	20	3,00	3,00	6,8500	2,20705
Syllable Awareness	**Segmentation**	**EXPT Pretest**	20	1,00	10,00	6,0000	2,88371
		EXPT Posttest	20	3,00	10,00	7,4000	2,28035
	Blending	**EXPT Pretest**	20	3,00	9,00	6,6000	1,75919
		EXPT Posttest	20	4,00	10,00	7,5500	1,84890
Onset Rime Awareness	**Segmentation**	**EXPT Pretest**	20	2,00	9,00	5,9500	1,82021

		EXPT Posttest	20	4,00	9,00	7,0500	1,46808
	Blending	EXPT Pretest	20	4,00	9,00	6,8000	1,32188
		EXPT Posttest	20	6,00	10,00	7,8000	1,28145
Phoneme Awareness	**Segmentation**	EXPT Pretest	20	1,00	9,00	4,6500	2,49789
		EXPT Posttest	20	4,00	10,00	7,4500	1,82021
	Blending	EXPT Pretest	20	3,00	10,00	6,2500	2,12442
		EXPT Posttest	20	4,00	10,00	7,7000	1,75019

Table.5.27 illustrates fourth year experimental group's phonological awareness pre- and post-test scores. Concerning the rhyming and alliteration task, the experimental group had a pre-test mean score of **(M=6.00, SD=2.33)** and a post-test mean score of **(M=7.05, SD = 2.01),** indicating a significant improvement in the group's ability to identify and manipulate sounds in words. Concerning the sentence segmentation task, the experimental group had a pre-test mean score of **(M=5.45, SD= 2.11)** and a post-test mean score of **(M=6.85, SD=2.20),** suggesting an enhancement in participants' capacity of counting words within a sentence. Concerning the syllable awareness tasks, the experimental group had a pre-test mean score of **(M=6.00, SD=2.88)** and a post-test mean score of **(M=7.40, SD=2.28)** for segmentation, and a pre-test mean score of **(M=6.60, SD=1.75)** and a post-test mean score of **(M=7.55, SD=1.84)** for blending. This indicates that the participants in the treatment group fostered their ability of identifying the syllables in a word. Concerning the onset-rime awareness tasks, the experimental group had a pre-test mean score of **(M=5.95, SD=1.82)** and a post-test mean score of **(M=7.05, SD=1.46)** for segmentation,

and a pre-test mean score of **(M=6.80, SD=1.32)** and a post-test mean score of **(M=7.80, SD=1.28)** for blending. This means that the participants developed their ability to segment the onset and rime in words, which usually precedes full phonemic awareness. Concerning the phoneme awareness tasks, the experimental group had a pre-test mean score of **(M=4.65, SD= 2.49)** and a post-test mean score of **(M=7.45, SD=1.82)** for segmentation, and a pre-test mean score of **(M=6.25, SD=2.12)** and a post-test mean score of **(M=7.70, SD = 1.75)** for blending. This implies that the experimental group boosted their ability to identify and manipulate sounds in words. In brief, the experimental group's post-test scores were higher than the pre-test scores for all tasks. This suggests that the intervention affected the participants' phonological awareness skills positively. It is worth noting that an inferential analysis was conducted to check the statistical significance of the differences between the pretest and posttest scores for the experimental group.

B- Inferential Analysis

Since the paired sample t-test has two hypotheses, the null hypothesis and the alternative hypothesis. Thus, two hypotheses were formulated:

H⁰: There will be no difference between the pretest and posttest phonological awareness scores of the EXPT group.

H¹: There will be a difference between the pretest and posttest phonological awareness scores of the EXPT group.

Table.5.28. Paired Samples Test of Fourth Year Experimental Group Phonological Awareness Scores

Phonological Awareness Tasks		Paired Differences			95%Confidence Interval of the Difference		T	Df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper			
Rhyming and Alliteration	EXPT-Pretest EXPT-Posttest	1,05000	1,66938	,37329	,26870	1,83130	2,813	19	,011
Sentence Segmentation	EXPT-Pretest EXPT-Posttest	1,40000	,82078	,18353	1,01586	1,78414	7,628	19	,000
Syllable Segmentation	EXPT-Pretest EXPT-Posttest	1,40000	1,56945	,35094	,66548	2,13452	3,989	19	,001
Syllable Blending	EXPT-Pretest EXPT-Posttest	,95000	,99868	,22331	,48260	1,41740	4,254	19	,000
Onset Rime Segmentation	EXPT-Pretest EXPT-Posttest	1,10000	,96791	,21643	,64701	1,55299	5,082	19	,000
Onset Rime Blending	EXPT-Pretest EXPT-Posttest	1,00000	,97333	,21764	,54447	1,45553	4,595	19	,000

Phoneme Segmentation	**EXPT-Pretest EXPT-Posttest**	2,80000	,95145	,21275	2,35471	3,24529	13,161	19	,000
Phoneme Blending	**EXPT-Pretest EXPT-Posttest**	1,45000	,94451	,21120	1,00795	1,89205	6,866	19	,000

Table.5.28 provides results obtained from a paired samples t-test of fourth year experimental group's phonological awareness pre-test and post-test scores. The results show that the participants' performance on all phonological awareness tasks significantly improved after the treatment, as evidenced by the significant p-values for each paired samples t-test. Specifically, for the rhyming and alliteration task, the mean score increased by **1.05** points (**SD=1.67, P=0.011< 0.05**). For the sentence segmentation task, the mean score improved by **1.40** points (**SD = 0.82, P=0,000< 0.05**). For the syllable segmentation task, the mean score boosted by **1.40** points (**SD=1.57, P=0,001< 0.05**). For the syllable blending task, the mean score grew by **0.95** points (**SD = 0.99, P=0,000<0.05**). For the onset rime segmentation task, the mean score boomed by **1.10** points (**SD=0.97, P=0,000< 0.05**). For the onset-rime blending task, the mean score augmented by **1.00** points (**SD=0.97, P=0,000< 0.05**). Finally, for the phoneme segmentation task, the mean score fostered by **2.80** points (**SD=0.95, P=0,000< 0.05**), and for the phoneme blending task, the mean score enhanced by **1.45** points (**SD=0.94, P=0,000< 0.05**). In short, these results suggest that the intervention was effective in improving fourth year experimental group's phonological awareness scores.

5.2.2.2. Control Group's Scores Analysis

A- Descriptive Analysis

Table.5.29. Descriptive Statistics of Fourth Year Control Group Phonological Awareness Scores

Phonological Awareness Tasks		Test	N	Minimum Score	Maximum Score	Mean	Std. Deviation
Rhyming and Alliteration		**CTRL Pretest**	20	2,00	9,00	6,1000	2,17401
		CTRL Posttest	20	3,00	10,00	6,3000	2,20287
Sentence Segmentation		**CTRL Pretest**	20	3,00	9,00	6,7500	1,83174
		CTRL Posttest	20	3,00	10,00	6,5000	2,09008
Syllable Awareness	**Segmentation**	**CTRL Pretest**	20	1,00	10,00	5,8500	2,51888
		CTRL Posttest	20	3,00	10,00	5,9500	2,13923
	Blending	**CTRL Pretest**	20	2,00	10,00	6,4000	2,18608
		CTRL Posttest	20	4,00	10,00	6,7500	1,83174
Onset Rime Awareness	**Segmentation**	**CTRL Pretest**	20	3,00	10,00	6,6000	2,16187
		CTRL Posttest	20	3,00	10,00	6,8000	1,88065
	Blending	**CTRL Pretest**	20	4,00	10,00	7,6500	2,00722
		CTRL Posttest	20	4,00	10,00	7,3000	2,00263

Phoneme Awareness	**Segmentation**	**CTRL Pretest**	20	1,00	8,00	4,8000	2,26181
		CTRL Posttest	20	1,00	9,00	4,8500	2,15883
	Blending	**CTRL Pretest**	20	2,00	9,00	4,9000	2,04939
		CTRL Posttest	20	2,00	10,00	5,1000	1,88903

Table.5.29 summarizes the descriptive statistics of fourth year control group's phonological awareness pre-test and post-test scores. For the rhyming and alliteration task, the control group's mean score increased marginally from (**M=6.1, SD=2.17**) on the pre-test to (**M=6.3, SD=2.20**) on the post-test. For the sentence segmentation task, the control group's mean score reduced from (**M=6.75, SD=1.83**) on the pre-test to (**M=6.5, SD=2.09**) on the post-test. For the syllable awareness tasks, the control group's mean score improved incrementally from (**M=5.85, SD=2.51**) on the pre-test to (**M=5.95, SD=2.13**) on the post-test for the segmentation task, and from (**M=6.4, SD=2.18**) on the pre-test to (**M=6.75, SD=1.83**) on the post-test for the blending task. For the onset-rime awareness tasks, the control group's mean score elevated from (**M=6.6, SD=2.16**) on the pre-test to (**M=6.8, SD=1.88**) on the post-test for the segmentation task, and decreased from (**M=7.65, SD=2.00**) on the pre-test to (**M=7.3, SD=2.00**) on the post-test for the blending task. For the phoneme awareness tasks, the control group's mean score augmented slightly from (**M=4.8, SD=2.26**) on the pre-test to (**M=4.85, SD=2.15**) on the post-test for the segmentation task, and declined from (**M=4.9, SD=2.04**) on the pre-test to (**M=5.1, SD=1.88**) on the post-test for the blending task. Though the control group's phonological awareness tasks mean scores improved slightly from the pre-test to the post-test, an inferential analysis was conducted to test the statistical significance of the obtained results.

B- Inferential Analysis

The null hypothesis and the alternative hypothesis were formulated as follows:

Hº: There will be no difference between the pretest and posttest phonological awareness scores of the CTRL group.

H¹: There will be a difference between the pretest and posttest phonological awareness scores of the CTRL group.

Table.5.30. Paired Samples Test of Fourth Year Control Group Phonological Awareness Scores

Phonological Awareness Tasks		Paired Differences					T	Df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Rhyming and Alliteration	CTRL-Pretest CTRL-Posttest	,20000	1,54238	,34489	-,52186	,92186	,580	19	,569
Sentence Segmentation	CTRL-Pretest CTRL-Posttest	-,25000	1,77334	,39653	-1,07995	,57995	-,630	19	,536
Syllable Segmentation	CTRL-Pretest CTRL-Posttest	,10000	1,55259	,34717	-,62663	,82663	,288	19	,776
Syllable Blending	CTRL-Pretest CTRL-	,35000	1,30888	,29267	-,26257	,96257	1,196	19	,246

	Posttest								
Onset Rime Segmentation	**CTRL-Pretest CTRL-Posttest**	,20000	1,36111	,30435	-,43702	,83702	,657	19	,519
Onset Rime Blending	**CTRL-Pretest CTRL-Posttest**	-,35000	1,30888	,29267	-,96257	,26257	-1,196	19	,246
Phoneme Segmentation	**CTRL-Pretest CTRL-Posttest**	,05000	1,39454	,31183	-,60266	,70266	,160	19	,874
Phoneme Blending	**CTRL-Pretest CTRL-Posttest**	,20000	1,23969	,27720	-,38019	,78019	,721	19	,479

The data in table.5.30 exhibits the results of a paired samples t-test conducted on fourth year control group's phonological awareness scores. It is evident from the data that there were no significant differences between the control group's pre-test and post- test scores. The obtained **p-values** were all greater than **0.05**, indicating that there is no statistically significant difference between the two sets of scores. This infers that the traditional methods of teaching reading are ineffective.

5.2.3. Overall Analysis of Reading Competence Scores

This part provides presents the pretest and posttest scores of the experimental and control groups' reading competence tasks' scores.

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Table.5.31. Descriptive Statistics of Fourth Year EXPT and CTRL Groups' Word Recognition Pretest and Posttest Scores

Group	Mean	N	Std. Deviation	T	Sig. (2 tailed)
Experimental Group Pretest	24,45	20	5,176	1,968	,064
Control Group Pretest	21,2500	20	5,21006		
Experimental Group Posttest	28,6500	20	5,84245	3,652	,002
Control Group Posttest	22,7000	20	4,43788		

Table.5.31 provides descriptive statistics for fourth year experimental (EXPT) and control (CTRL) groups' word recognition pretest and posttest scores. Based on the data we can infer the EXPT group had a higher mean score on the pre-test **(M=24.45, SD=5.17)** than the CTRL group **(M=21.25, SD=5.21)**, but the difference was not statistically significant **(T=1.968, P=0.064)**. This implies that the two groups had similar word recognition's ability before the PA training. However, the EXPT group had a significantly higher mean score **(M=28.65, SD=5.84)** than the CTRL group **(M=22.70, SD=4.43),** as evidenced by **(T=3.652, P=0.002)** on the post-test. This suggests that the intervention had a positive effect on the EXPT group's word recognition ability as they enhanced significantly better than the CTRL group.

Table.5.32. Descriptive Statistics of Fourth Year EXPT and CTRL Groups' Reading Fluency Pretest and Posttest Scores

Group	Mean	N	Std. Deviation	T	Sig. (2 tailed)
Experimental Group Pretest	164.9915	20	94.72651	1,510	,147
Control Group Pretest	145.1215	20	89.95389		
Experimental Group Posttest	196.9730	20	108.81658		
Control Group Posttest	155.4555	20	101.57878	2,377	,028

Table.5.32 shows fourth year experimental (EXPT) and control (CTRL) groups' reading fluency pre-test and post-test scores. The data would seem to suggest that the mean score for the EXPT group on the reading fluency pre-test

was **(M=164.99, SD=94.72).** The mean score for the CTRL group on the pre-test was **(M=145.12, SD=89.95).** However, the difference in means was not statistically significant at the conventional level of **0.05** as indicated by the **p-value (P=0.14).** This indicates that the two groups had similar reading fluency abilities at the beginning of the study. On the post-test, the mean score for the EXPT group was **(M=196.97, SD=108.81).** The mean score for the CTRL group was **(M=155.45, SD=101.57).** The difference in means was statistically significant at the conventional level of **0.05** as shown by the **p-value** (**p=0.02**). This implies that the intervention had beneficial effects on the EXPT group's reading fluency ability in comparison with the CTRL group, which received classical instruction.

5.2.4. A Detailed Analysis of Reading Competence Scores

This part provides a detailed analysis of fourth year experimental group reading competence scores.

5.2.4.1. Experimental Group's Scores Analysis

A- Descriptive Analysis

Table.5.33. Descriptive Statistics of Fourth Year Experimental Group Reading Competence Scores

Reading Competence Tasks	Mean	N	Std. Deviation
Word Recognition EXPT Pretest	11,7500	20	2,65320
Word Recognition EXPT Posttest	14,1000	20	2,86356
Pseudo-word Recognition EXPT Pretest	12,7000	20	3,16394
Pseudo-word Recognition EXPT Posttest	14,5500	20	3,15353
Reading Fluency EXPT Pretest	164.9915	20	94.72651
Reading Fluency EXPT Posttest	196.9730	20	108.81658

Table.5.33 presents fourth year experimental group scores on reading competence tasks. The data would seem to suggest that all the mean scores of reading competence skills: word recognition, pseudo-word recognition, and reading fluency increased significantly from pre-test to post-test. Regarding word recognition, the experimental group's mean score improved from **(M=11.75,**

SD=2.65) on the pre-test to **(M=14.10, SD=2.86)** on the post-test. Regarding pseudo-word recognition, the experimental group's mean score enhanced from **(M=12.70, SD=3.16)** on the pre-test to **(M=14.55, SD= 3.15)** on the post-test. Regarding reading fluency, the treatment group's mean score levelled up from **(M=164.99, SD=94.72)** on the pre-test to **(M=196.97, SD=108.81)** on the post-test. The obtained scores suggest that the PA training seemed to have a positive impact on the experimental group reading competence scores.

B- Inferential Analysis

The null hypothesis and the alternative hypothesis were formulated as follows:

H⁰: There will be no difference between the pretest and posttest reading competence scores of the EXPT group.

H¹: There will be a difference between the pretest and posttest reading competence scores of the EXPT group.

Table.5.34. Paired Samples Test of Fourth Year Experimental Group Reading Competence Scores

Reading Competence Tasks		Paired Differences					T	Df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Word Recognition	EXPT-Pretest EXPT-Posttest	2,35000	1,22582	,27410	1,77630	2,92370	8,573	19	,000
Pseudo word Recognition	EXPT-Pretest EXPT-Posttest	1,85000	1,69442	,37888	1,05699	2,64301	4,883	19	,000

Reading Fluency	**EXPT-Pretest EXPT-Posttest**	31.98150	19.51332	4.36331	22.84898	41.11402	7,330	19	,000

Table.5.34 shows the results of a paired sample t-test for fourth year experimental group reading competence scores. The data reveal that the mean difference of word recognition between pre-test and post-test scores was (**M=2.35, SD=1.22**), while the mean difference of pseudo-word recognition between the pre-test and post-test scores was (**M=1.85, SD=1.69**). The results also indicate that the mean difference of reading fluency between the pre-test and post-test scores was (**M=31.98, SD=19.51**). The obtained p-values were less than the conventional alpha level for all the tasks. This implies that the mean differences between the pre-test and post-test scores were statistically significant, and thus the intervention had beneficial effects on the treatment group's reading competence.

5.2.4.2. Control Group's Scores Analysis

A- Descriptive Analysis

Table.5.35. Descriptive Statistics of Fourth Year Control Group Reading Competence Scores

Reading Competence Skills	Mean	N	Std. Deviation
Word Recognition CTRL Pretest	10,9500	20	3,85903
Word Recognition CTRL Posttest	11,2000	20	3,83337
Pseudo-word Recognition CTRL Pretest	10,3000	20	2,79285
Pseudo-word Recognition CTRL Posttest	11,5000	20	2,78152
Reading Fluency CTRL Pretest	145.1215	20	89.95389
Reading Fluency CTRL Posttest	155.4555	20	101.57878

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Table.5.35 describes the results obtained from fourth year control group's reading competence scores. The data indicate that word recognition task pre-test mean score was **(M=10.95, SD=3.85),** while the post-test mean score was **(M=11.2, SD=3.83).** In respect to pseudo-word recognition task, the pre-test mean score was **(M=10.3, SD=2.79)**, whereas the post-test mean score was **(M=11.5, SD=2.78)**. For reading fluency task, the mean score was **(M=145.12, SD=89.95)** on the pre-test, whilst the mean score for the posttest was **(M=155.45, SD=101.57).** The findings infer that fourth-year control group's reading competence enhanced from pre-test to post-test. Nonetheless, the improvement cannot be determined solely from the descriptive statistics, and further inferential analysis would be necessary to understand the significance of the results.

B- Inferential Analysis

The null hypothesis and the alternative hypothesis were formulated as follows:

H⁰: There will be no difference between the pretest and posttest reading competence scores of the CTRL group.

H¹: There will be a difference between the pretest and posttest reading competence scores of the CTRL group.

Table.5.36. Paired Samples Test of Fourth Year Control Group Reading Competence Scores

Reading Competence Tasks		Paired Differences					T	Df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Word Recognition	CTRL-Pretest	,25000	1,65036	,36903	-,52239	1,02239	,677	19	,506

	CTRL-Posttest								
Pseudo-word Recognition	CTRL-Pretest CTRL-Posttest	1,20000	2,33057	,52113	,10926	2,29074	2,303	19	,033
Reading Fluency	CTRL-Pretest CTRL-Posttest	10.33400	37.85938	8.46562	- 7.38474	28.05274	1,221	19	,237

Table.5.36 demonstrates the results obtained from a paired samples test conducted on fourth year control group's reading competence scores. Regarding word recognition task, the mean difference between the pre-test and post-test scores was (**M=0.25, SD=1.65)** and the obtained **p-value** was **0.50.** This indicates that this difference is not statistically significant at the alpha level of **0.05.** For pseudo-word recognition task, the mean difference between the pre-test and post-test scores was **(M=1.2, SD=2.33)** and the **p-value** was **0.033.** This implies that this difference is statistically significant at the alpha level (**0.05)**. As for reading fluency task, the mean difference between the pre-test and post-test scores for reading fluency was **(M=10.33, SD=8.46)** and the p-value was **0.237**, which is not statistically significant at the alpha level of **0.05.** Concisely, the findings demonstrate that there was no significant difference in word recognition and reading fluency scores, in contrast to pseudo-word recognition scores, which significantly enhanced on the post-test.

5.2.5. Overall Analysis of Reading Comprehension Tasks Scores

This section presents fourth year experimental and control groups' pre-test and post- test scores of the reading comprehension.

Table.5.37. Descriptive Statistics of Fourth Year EXPT and CTRL Groups'
Reading Comprehension Pretest and Posttest Scores

Group	Mean	N	Std. Deviation	T	Sig. (2 tailed)
Experimental Group Pretest	40,2500	20	6,39798	3,179	,005
Control Group Pretest	32,9500	20	9,19654		
Experimental Group Posttest	43,8500	20	4,84795	4,645	,000
Control Group Posttest	34,4000	20	8,29331		

Table.5.37 presents descriptive statistics of fourth year experimental and control groups' pre-and post-test scores of reading comprehension. The data demonstrate that the experimental group had a higher pre-test score **(M=40.25, SD=6.39)** than that of the control group (**M=32.95, SD=9.19).** The t-test for independent samples indicated a significant difference between the groups **(T= 3.17, P= .005)**. The statistics also reveal that the experimental group had a higher mean score **(M=43.85, SD=4.84)**, while the control group had a lower mean score of **(M=34.40, SD=8.29).** The t-test for independent samples showed a significant difference between the groups **(T= 4.64, P= .000)**. In brief, these results suggest that the experimental group had a higher level of reading comprehension both before and after the intervention compared to the control group.

5.2.6. A Detailed Analysis of Reading Comprehension Tasks Scores

5.2.6.1. Experimental Group's Scores Analysis

A- Descriptive Analysis

Table.5.38. Descriptive Statistics of Fourth Year EXPT Group's Reading Comprehension Pretest and Posttest Scores

Group	Mean	N	Std. Deviation
Experimental Group Pretest	40,2500	20	6,39798
Experimental Group Posttest	43,8500	20	4,84795

Table.5.38 displays descriptive statistics of fourth year experimental group's pre- test and post-test scores of reading comprehension. According to the data, the experimental group mean score improved from **(M=40.25, SD=6.39)** on the pre-test to **(M=43.85, SD=4.84)** on the post-test. These results suggest that the PA training had a positive impact on the experimental group's reading comprehension, as reflected in the higher post-test scores. Nonetheless, these data only provide descriptive statistics for the experimental group's scores, and more analysis for significance would be necessary to draw conclusions that are more definitive.

B- Inferential Analysis

The null hypothesis and the alternative hypothesis were formulated as follows:

Hº: There will be no difference between the pretest and posttest reading comprehension scores of the EXPT group.

H¹: There will be a difference between the pretest and posttest reading comprehension scores of the EXPT group.

Table.5.39. Paired Samples Test of Fourth Year EXPT Group Reading Comprehension Scores

Reading Comprehension Tasks		Paired Differences					T	Df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Reading Comprehension	EXPT-Pretest EXPT-Posttest	3,60000	2,21003	,49418	2,56568	4,63432	7,285	19	,000

Table.5.39 shows the results obtained from a paired samples t-test for fourth year experimental group pre-test and post-test reading comprehension scores. The data demonstrate that the mean difference between the pre-test and post-test scores of the experimental group on the reading comprehension tasks was **(M=3.60, SD=2.21).** The t- test indicates that the difference between the pre-test and post-test scores was statistically significant **(T=7.285, P=0.000)**. This implies that the experimental group reading comprehension scores significantly improved after the intervention. In brief, these results suggest that the PA training was impactful on the experimental group's reading comprehension scores.

5.2.6.2. Control Group's Scores Analysis

A- Descriptive Analysis

Table.5.40. Descriptive Statistics of Fourth Year CTRL Group's Reading Comprehension Pretest and Posttest Scores

Group	Mean	N	Std. Deviation
Control Group Pretest	30,9500	20	9,19654
Control Group Posttest	34,4000	20	8,29331

The data illustrated in (table.5.40) present descriptive statistics of fourth year control group pre-test and post-test scores of reading comprehension tasks. For the pre- test scores, the control group had a mean score of **(M=30.95, SD=9.19).** For the post-test scores, the control group had a mean score of **(M= 34.40, SD=8.29).** These results suggest that fourth year control group had lower reading comprehension scores compared to the experimental group before and after the intervention.

B- Inferential Analysis

The null hypothesis and the alternative hypothesis were formulated as

follows:

Hº: There will be no difference between the pretest and posttest reading comprehension scores of the CTRL group.

H¹: There will be a difference between the pretest and posttest reading comprehension scores of the CTRL group.

Table.5.41. Paired Samples Test of Fourth Year CTRL Group's Reading Comprehension Scores

Reading Comprehension Tasks		Paired Differences					T	Df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Reading Comprehension	CTRL-Pretest CTRL-Posttest	1,45000	3,85903	,86291	-,35608	3,25608	1,680	19	,109

Table.5.41 exhibits the results of a paired samples t-test of fourth year control group pre-test and post-test scores of reading comprehension. The statistics reveal that the control group's mean difference between the pre-test and post-test scores was **(M=1.45, SD=3.85).** The t-test shows that the difference between the pre-test and post-test scores was not statistically significant as indicated by the p-value **(P=0.109)**. This implies that there was no significant change in the control group's reading comprehension scores due to the ineffectiveness of classical instruction of reading in middle school.

5.2.7. Pearson's Correlation Analysis of Reading Competence Skills Scores

Table.5.42. Pearson Correlation's Test of Fourth Year Experimental Group

Sig. (2-tailed)	Phonological Awareness Skills	Word Recognition Skills	Reading Fluency Skills	Reading Comprehension Skills
Phonological Awareness Skills	1	,870**	,866**	,815**
		,000	,000	,000
	20	20	20	20
Word Recognition Skills	,870**	1	,844**	,788**
	,000		,000	,000
	20	20	20	20
Reading Fluency Skills	,866**	,844**	1	,726**
	,000	,000		,000
	20	20	20	20
Reading Comprehension Skills	,815**	,788**	,726**	1
	,000	,000	,000	20

**. Correlation is significant at the 0.01 level (2-tailed).

Table.4.80 shows the correlation matrix between the three components of reading competence for fourth year experimental group. The data reveal that all correlations between these variables are significant. Specifically, there is a strong positive correlation between phonological awareness skills and word recognition skills **(r=0.870),** reading fluency skills **(r=0.866)**, and reading comprehension skills **(r=0.815).** Equally, the correlation coefficient **(r= 0.844)** indicates a strong correlation between word recognition skills and reading fluency skills. The data also show strong associations between reading comprehension skills and word recognition skills **(r=0.788)** and between reading fluency skills and reading comprehension skills **(r=0.726)**. The above results infer that phonological awareness is strongly correlated with word recognition, reading fluency, and reading comprehension skills.

Conclusion

The quasi-experimental phase provided critical quantitative evidence demonstrating the efficacy of explicit phonological awareness instruction in boosting broader Algerian middle school pupils' English reading competence. Analysis of pretest and posttest scores across an array of literacy measures revealed the experimental training groups significantly outperformed their control peers who received only standard classroom teaching.

Gains proved consistent across first and fourth year cohorts on assessments targeting phonological awareness itself, word recognition, reading fluency pacing, and passage comprehension. The most substantial improvements arose in phonemic skills like segmenting, blending and manipulating sounds, but associated word-level decoding and global understanding also showed marked enhancement. These correlated cross- domain spikes align with the conceptual model that proficient phonological abilities scaffold acquiring accuracy and automaticity in print-to-sound translations necessary for fluent extraction of meaning.

Conversely, students undergoing typical English lessons failed to exhibit comparable knowledge growth. Negligible score changes for most control subgroups indicate conventional instruction inadequately nurtures introductory oral-aural sensitivities essential for unlocking written language. Curricular modifications emphasizing these foundations could thus better equip Algerian pupils to progress literacy.

Supplementing the score patterns, correlation analysis revealed robust interrelationships between phonological awareness and reading competence measures. The tight bonding reaffirms shared variances and causative links whereby phonemic proficiency transfers into higher-phase skills. This substantiates the vital necessity of dedicating early and ongoing educational focus towards these elemental oral linguistics.

CHAPTER FIVE: QUASI-EXPERIMENTAL PHASE: DATA ANALYSIS AND DESCRIPTION

In brief, results powerfully demonstrate explicit phonological training efficiently bolsters decoding, fluency and comprehension - the ultimate academic goal. Integrating complementary awareness activities into texts and lessons can help systematically build strong English readers.

CHAPTER SIX:

Discussion of the Major Findings, Pedagogical Implications and Recommendations for Future Research

CHAPTER SIX: DISCUSSION OF THE MAJOR FINDINGS, PEDAGOGICAL IMPLICATIONS AND RECOMMENDATIONS FOR FUTURE RESEARCH

Introduction

Research has demonstrated that phonological awareness is an early precursor of later reading success (Storch and Whitehurst, 2002). That is why, explicit phonological awareness instruction is a crucial element in learning to read. Indeed, EFL learners should have strong phonological awareness skills that help them become proficient readers.

The present chapter employs triangulation with findings derived from diverse research instruments, emphasizing the response of the obtained results to the research questions and hypotheses. Specifically, it accounts for the participants' attitudes toward reading instruction in general and phonological awareness in particular, and it sheds light on the strong correlation between phonological awareness and reading competence skills.

Additionally, it provides pedagogical implications about phonological awareness and reading instruction. It illustrates how systemic phonological awareness instruction can foster middle school pupils' reading competence. Furthermore, it suggests a set of procedures that could facilitate the incorporation of phonological awareness skills in reading instruction in middle school.

Finally, it provides some recommendations for further research. It relates the unanticipated findings of this study. Furthermore, it addresses the unanswered aspects of the research problem. Above all, it suggests specific interventions and strategies to address the issues and constraints identified through this study.

6.1. The Place of Phonological Awareness in Middle School EFL Reading Instruction

The major objective of this research was to examine the place of the phonological awareness in middle school EFL reading instruction. Initially, it sought to gain rigorous comprehension of how phonological awareness is

addressed in middle school EFL reading instruction. In fact, it searched for how phonological awareness (PA) is presented in English textbooks. Besides, it intended to reveal EFL pupils', EFL teachers', and EFL inspectors' attitudes towards the integration of phonological awareness in English reading instruction.

Therefore, the following section is structured around the following major question in the exploratory phase:

RQ1: What is the place of phonological awareness in EFL reading instruction, at Tayeb Boulahrouf Middle School (TB MS) Kouba, Algiers?

It elaborates the obtained results from the document analysis, the pupil and teacher questionnaires, the inspector semi structured interview, and the pre-posttest tasks scores.

6.1.1. Phonological Awareness in Middle School EFL Textbooks

The textbooks analysis revealed that current Algerian middle school English curriculum materials do not systematically incorporate phonological awareness instruction or align it with reading content (Chapter 4, Section.4.1.1; Section.4.1.2; Section.4.1.3; Section.4.1.4). Correspondingly, the obtained results indicated that phonological awareness tasks are almost absent in the middle school English textbooks except with reference to phoneme isolation, categorization, and identification activities (Chapter 4, Section.4.1.4). This absence mirrors inspectors' reports that large sight-word vocabulary (the set of words that a child can immediately recognize without use of decoding strategies) compensate for poor decoding skills as well as the focus on phonics detracts reading comprehension (Chapter 4, Table.4.33; Table.4.35). Additionally, these findings corroborated the idea that phonological awareness training receives negligible focus from most EFL teachers at TB MS, Kouba, Algiers (Chapter 4, Table.4.24; Bar Chart.4.7). These results refuted the claim that comprehension is impaired without accurate and good decoding skills (Share, 1995) (Chapter 1, Section.1.7.2.1).

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Moreover, the PA tasks/activities are only allocated to one level of phonological awareness that is phoneme awareness level. Other levels such as syllable awareness level and onset-rime awareness level are totally marginalized in the textbooks (Chapter 4, Section.4.1.1; Section.4.1.2; Section.4.1.3; Section.4.1.4). The results obtained from the pupils' questionnaire confirmed that the most practiced phonological awareness activities were phoneme awareness activities with a portion of (52.6%) for first graders and a portion of (52.1%) for fourth graders (Chapter 4, Table.4.11; Table.4.18). This comes in accordance with the findings gained from the teacher questionnaire. Most EFL teachers, a percentage of (39.2%), claimed to prioritize teaching "phoneme awareness" over other phonological awareness skills (Chapter 4, Table.4.26). Besides, though there are sporadic (scattered) activities that target learners' phonological awareness skills such as phoneme isolation, categorization, and identification, these tasks lack coherent sequencing or clear objectives for building requisite early reading foundations. Additionally, these activities are set randomly. In other words, they do not respect the linear progression of phonological awareness acquisition (Chapter 4, Section.4.1.1; Section.4.1.2; Section.4.1.3; Section.4.1.4). These findings contradict research demonstrating that children's sensitivity to sounds or (phonological awareness) develops along a continuum moving from larger units to smaller units and from easier skills to more complex skills (Phillips et al. 2008; Chard and Dickson, 1999; Yopp and Yopp, 2010) (Chapter 2, Section.2.2). Moreover, findings affirmed that Algerian English middle school textbooks do not systematically develop decoding and reading fluency skills despite their documented importance for reading literacy (Rathvon, 2004; Juel, 1988; Stanovich, 1991; National Reading Panel 2000) (Chapter 1, Section.1.7.2.1; Section.1.7.2.2). Respectively, first and fourth year pupils reported minimal exposure to these skills (word recognition and fluency) which are necessary to unlock the alphabetic code (Chapter 4, Table.4.8; Table.4.9; Table.4.15; Table.4.16). Consequently, many struggle profoundly with pronouncing complex words and extracting meaning (Chapter 4, Section.4.2).

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The triangulation of the results showed that textbooks, teachers and pupils barely prioritized phonological awareness skills training theoretically implicated for reading success. Textbooks' analysis revealed lack of coherent goals, scope and sequencing for phonological awareness (Chapter 4, Section.4.1.1; Section.4.1.2; Section.4.1.3; Section.4.1.4). In this respect, the majority of EFL teachers asserted that the inclusion of phonological awareness tasks in their daily courses was unnecessary (Chapter 4, Table.4.24). However, findings also reaffirmed challenges pupils reported with pronunciation and comprehension, underscoring how stronger focus on phonological awareness skills could alleviate pivotal obstacles to reading proficiency (Chapter 4, Table.4.8; Table.4.9; Table.4.15; Table.4.16). This suggests that first and fourth year pupils' decoding and comprehension difficulties can be attributed to their weak phonological awareness skills. In this regard, Truxler and O'keefe (2007) find that early acquisition of phonological awareness skills allows children to obtain successful decoding and spelling skills (Chapter 2, Section. 2.6.1) (Chapter 1, Section.1.7.2.1). Moreover, learners with strong decoding skills are believed to have good comprehension skills (Hagtvet, 2003) (Chapter 2, Section.2).

In sum, the document analysis results suggested that Algerian middle school English textbooks incorporate a meaning-based method to teaching reading where so much attention is given to 'meaning comprehension' at the expense of phonological awareness, decoding, and reading accuracy skills (Chapter 4, Section.4.1.1; Section.4.1.2; Section.4.1.3; Section.4.1.4). This aligns with Anderson (2003) and Ehri et al. (2001) views on the unproductiveness of meaning-based approaches when teaching reading (Chapter 1, Section.1.6.1). In fact, the neglect of the (PA) skills impedes the process of comprehension (Hagtvet, 2003). These results are supported by pupils' answers of what is the most difficult part of reading (Chapter 4, Table.4.7; Table.4.14). Therefore, curriculum revisions to integrate sequential, engaging phonological awareness development could strengthen learners' abilities to parse words into constituent sounds necessary for deciphering meaning (Share, 1995) (Chapter 1,

Section.1.7.2.1). Put differently, the inclusion of phonological awareness activities that are age appropriate and highly engaging in textbooks would better scaffold fundamental early reading competencies (Chard and Dickson, 1999) (Chapter 2, Section.2.4).

6.1.2. Pupils' Attitudes towards the Role and Importance of Phonological Awareness

This section discusses the major findings obtained from the pupil and teacher questionnaires and the inspector interview. It describes the participants' views on phonological awareness. Besides, it gives a generic explanation of what the study findings revealed that is unique or different from the existing literature.

6.1.2.1. First Year Pupils' Attitudes

The results obtained from first-year pupil questionnaire showed largely positive attitudes towards classroom reading instruction, with (75%) expressing moderate to high enjoyment of reading inside the classroom or intensive reading (Chapter 4, Section 4.2.1; Pie Chart.4.2). Literature review, however, demonstrates that intensive reading aims at building language knowledge rather than enhancing reading competence and this is one of its main shortcomings (Nation, 2008) (Chapter 1, Section.1.5.1). A percentage of (25%) of the first-year pupils opted for reading "a little bit" or "not at all" inside the classroom (Chapter 4, Section 4.2.1; Pie Chart.4.2). This indicates that these participants might have poor phonemic awareness because children with phonological awareness deficits may face serious reading problems (Catts et al., 2005) (Chapter 2, Section.2.3). Otherwise, they might have speech or hearing impairments which make them struggle with reading. In this respect, Lund (2020) mentioned that children with (hearing problems such as children with cochlear implants) performed more poorly than their age-matched peers on phonological awareness tasks. Such kind of children tend to be poor readers (Chapter 2, Section.2.6.2). However, the results analysis exposed engagement

declines, with just (15%) of first graders frequently reading outside class. Reasons like unfamiliarity with English, lack of time or busy study schedule signal challenges fostering extensive reading   literacy (Chapter 4, Section.4.2.1; Bar Chart.4.1). This implies that the majority of first year schoolers have not developed supplementary reading as a habit yet.

Moreover, the results indicated that (39.2%) of first graders considered reading comprehension as the primary focus when teaching reading (Chapter 4, Table.4.8). This corresponds to the findings obtained from the teacher questionnaire as the majority of respondents cited that "reading comprehension" is the most crucial skill to teach in middle school reading program (Chapter 4, Bar Chart.4.7). Though "text comprehension" is very important, successful reading involves two further basic skills: word recognition/decoding and reading accuracy (Share, 1995) (Chapter 1, Section.1.7.2.1). Children who lack the ability to recognize words automatically have been reported to have reading comprehension problems (Perfetti, 1985) (Chapter 2, Section.2.8.1). Correspondingly, Taguchi, Gorsuch and Sasamoto (2006) assert that fast automaticity is the responsible of better comprehension (Chapter 2, Section.2.8.2.1).

For phonological awareness activities, the first-year pupils mentioned that the most practiced phonological awareness activities were phoneme awareness activities with a rate of (51.6%) (Chapter 4, Table.4.11). The high percentage of participants engaging in phoneme awareness activities suggested that they were given more importance than other (PA) skills. These results are consistent with teacher questionnaire (Chapter 4, Table.4.26) and textbooks' analysis findings (Chapter 4, Section.4.1.1; Section.4.1.2; Section.4.1.3; Section.4.1.4). Nevertheless, the lack of systematic instruction in phonological awareness, with pupils not progressing from less complex to more complex skills, indicates room for improvement in Algerian middle school EFL classrooms (Yopp 1988; Torgesen et al., 1992; Phillips et al., 2008, Yopp and Yopp, 2010) (Chapter 2, Section.2.2).

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The first-year pupils' attitudes towards the effectiveness of phonological awareness activities were different. The results revealed that the majority of first graders (67.5%) believed that phonological awareness activities could improve their reading competence. They recognized the importance of understanding the sounds that make up words for successful reading acquisition (Chapter 4, Pie Chart.4.5). This aligns with research that shows training in phonological awareness during or before reading instruction has positive advantages in subsequent reading acquisition (Olofsson and Lundberg, 1985; Lundberg, Frost, and Petersen, 1988; Tunmer et al., 1988) (Chapter 2, Section.2.8). However, these findings disagree with teachers' perceptions on the usefulness of PA in reading instruction as the greater proportion of EFL teachers (80%) claimed that they did not use these activities in their reading classes. Additionally, more than half of first graders validated pronunciation activities positively, signaling they aided skills such as vocabulary and fluency skills. This comes in accordance with research on phonological awareness facilitating L2 pronunciation accuracy (Cheung, 1995) (Chapter 2, Section.2.7).

For teacher's method of teaching reading, the majority of first year pupils expressed satisfaction with their teacher's method of teaching reading. They appreciated their EFL teacher's emphasis on reading aloud (Chapter 4, Bar Chart.4.3). Correspondingly, research proves that this type of reading is quite beneficial because it improves learners' vocabulary and comprehension. Besides, it fosters learners' motivation to learn to read (Klesius and Griffith, 1996) (Chapter 1, Section.1.5.3).

In conclusion, first year middle schoolers showed reading enjoyment and strategic skills still developing. While valuing text comprehension, many among them mentioned early difficulties in recognizing words and in reading with speed (Chapter 4, Table.4.7). In this respect, Adams (1990) observes that poor readers have different rates of speed when sounding out words. Additionally, they have special difficulty in reading pseudo-words (pronounceable strings of letters that have no meaning) (Chapter 1, Section.1.4.1). Struggles in decoding

unfamiliar words and retaining meaning indicate potential phonological awareness gaps. Literature review emphasizes the relationship among phonology, morphology, vocabulary, and reading proficiency. It states that phonological awareness predicts word and pseudo-word reading accuracy (Farran et al. 2011) (Chapter 2, Section.2.9.2). Hence, the results suggested that explicit phonological training could form a key pillar of oral and reading proficiency.

6.1.2.2. Fourth Year Pupils' Attitudes

The fourth-year questionnaire revealed that the majority of participants had a high interest in reading English inside the classroom (Chapter 4, Pie Chart.4.7). Fourth graders simply enjoyed reading and found it a relaxing and enjoyable activity. They might see the classroom as a place where they could immerse themselves in a good reading material without any distractions. Apparently, the textbooks contain a variety of reading materials that fourth year pupils can choose from, which can make it easier for them to find something they are interested in reading. These materials can be found in rubrics such as *"I read for pleasure."* (Chapter 4, Section.4.1.1; Section.4.1.2; Section.4.1.3; Section.4.1.4). The latter aims at training young learners to be good readers via putting enjoyable reading materials at their disposal. Literature review mentions that classroom reading (intensive reading) requires the meticulous reading of target language texts with the objective of extracting the main idea of a text, true or false statements or filling gaps, matching rubrics to paragraphs, or speculating the meaning of unfamiliar words (Long and Richards, 1987; Brown 1988) (Chapter 1, Section.1.5.1). Nonetheless, this style of reading is criticized since it focuses on 'the language of a text' rather than building strong reading abilities. Decoding and accuracy seem to be marginalized in this type of reading (Alderson and Urquhart, 1984; Gilnerand and Morales, 2010) (Chapter 1, Section.1.5.1).

The findings also showed that half of fourth year pupils frequently read extras without teachers' coercion. Motives like self-improvement and media access signal the fourth graders' maturing engagement. In general, fourth year

pupils exhibited uptick from first graders regarding reading acquisition, pursuing some autonomous English materials. They better recognized reading as an accrual of layered competencies (Chapter 4, Bar Chart.4.4). Nevertheless, research indicates that this kind of reading fits meaning-focused input since the readers focus more on meaning rather than the language features of the text (Nation, 2008) (Chapter 1, Section.1.5.2).

Additionally, the findings demonstrated that the majority of fourth-year pupils believed that "word comprehension" was the most focused skill when teaching reading, followed closely by "word recognition", and a smaller portion focused on "reading words with speed" (Chapter 4, Table.4.15). The obtained results are consistent with first graders, teachers, and inspectors' perceptions (Chapter 4, Table.4.8; Bar Chart.4.7; Table.4.35). Nonetheless, these findings controvert with reviewed literature in the first chapter. Despite the fact that word comprehension is the ultimate goal of reading, however, it is but one stage of reading process. According to Hoover and Gough (1990), comprehension is the 'product' of decoding (word recognition) and 'listening comprehension'. Moreover, it has positive correlations with reading skill automaticity (Chapter 2, Section.2.8.2.2). Readers with more automated reading skills are reported to have more control processing resources for text modeling and have better comprehension (LaBerge and Samuels, 1974; Walczyk, 2000) (Chapter 2, Section.2.8.2.1). This implies that readers with poor decoding and poor automaticity skills might have serious word comprehension challenges and this is the case with fourth graders. The data indicated that the majority of fourth graders considered 'word comprehension' as the most difficult part of reading (Chapter 4, Table.4.14). Fourth year pupils also claimed to face other problems when reading such as negative transfer from French to English, problems with silent letters, and decoding unfamiliar words (Chapter 4, Section.4.2.2). In this regard, Adams (1990) posits that struggling readers often fail to decode infrequent words (Chapter 1, Section.1.4.1). Besides, Koda (2005) assumes that EFL learners face reading difficulties due to the negative transfer from their

native language to the target language (Chapter 1, Section.1.3.2.2).

Concerning phonological awareness activities, the fourth-year pupils declared that the most commonly practiced phonological awareness activity was "phoneme awareness activities" (Chapter 4, Table.4.18). In addition, the results revealed that a majority of fourth-year pupils had a positive attitude towards the use of phonological awareness activities for improving reading skills (Chapter 4, Pie Chart.4.10). These findings are congruent with a huge bulk of research in the literature review chapter (e.g., Wagner and Torgesen, 1987; Chard and Dickson, 1999; Justice and Pence 2005; Phillips et al., 2008; Hougen, 2016) (Chapter 2, Section.2.6). Nonetheless, they refute with EFL teachers' views that showed a pronounced skepticism towards the use of phonological awareness for assessing reading skills (Chapter.4, Pie Chart.4.12).

Regarding the methods used by English teachers for teaching reading, a significant proportion of fourth graders expressed satisfaction. They appreciated that their teachers use age-appropriate methods as well as they utilize engaging and interactive activities. Most importantly, they use modeling to teach word decoding/pronunciation, regular assessment, simplified input for difficult words (Chapter 4, Bar Chart.4.6). These findings align with research that investigates the effective methods of teaching reading (Day and Bamford, 2002; Grabe, 2002) (Chapter 1, Section.1.5.2) (Trachtenburg and Ferruggia, 1989) (Chapter 1, Section.1.5.3).

In brief, fourth years demonstrated substantially increased independent responsibility for honing reading skills. The findings indicated that fourth year graders sought extracurricular materials to complement classroom content (Chapter 4, Bar Chart.4.4). Acknowledging comprehension, decoding and speed as persistent reading hurdles suggested the necessity to train in phonological awareness to overcome these reading obstacles as shown in the literature review.

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6.1.2.3. Major Findings Regarding Pupils' Attitudes towards Phonological Awareness

Several similarities and differences can be observed when comparing the results obtained from the first-year pupils' questionnaire and the fourth-year pupils' questionnaire at Tayeb Boulahrouf Middle School. Regarding similarities, the results revealed that both groups of pupils faced difficulties in reading, such as word comprehension, reading speed, word recognition, and pronunciation (Chapter 4, Table.4.7; Table.4.14). This infers that both grades (first and fourth) have characteristics of poor readers as they declared to have difficulty decoding, reading accurately, and comprehending the words' meanings (Adams, 1990) (Chapter 1, Section.1.4.1). Additionally, such kind of weaknesses imply that both groups of pupils have deficits in letter–sound knowledge, phonemic awareness, and rapid automatized naming skills which appear causally associated to reading problems (Hulme and Snowling, 2013) (Chapter 1, Section.1.6.1). Moreover, both groups considered reading comprehension the primary focus of learning to read, followed by word recognition and reading fluency (Chapter 4, Table.4.8; Table.4.15). These results seem to be analogous with both EFL teachers' and EFL inspectors' perceptions. Most inspectors, for instance, attached EFL learners' reading difficulties to poor reading comprehension and deficiencies in basic language skills (Chapter 4, Table.4.30; Table.4.31). Nevertheless, a huge bulk of research has demonstrated that the development of reading comprehension is associated with improved lower-level reading skills. In other words, word recognition and accuracy skills are processed before higher-level reading skills such as language comprehension (LaBerge and Samuels, 1974). Novice readers start with word recognition, proceed to decoding, gain fluency, and develop comprehension skills (Potter and Wamre 1990; Reutzel and Hollingsworth, 1993; Pikulski and Chard, 2005; Cadime et al., 2017). Therefore, decoding and fluency skills are generally acknowledged as crucial precursors of good reading comprehension (National Reading Panel, 2000; Fuchs et al, 2001) (Chapter 2, Section.2.8.2). Furthermore, both groups of

pupils stressed the importance of phonological awareness and claimed that "phoneme awareness activities" are the most practiced activities in the classroom (Chapter 4, Table.4.11; Pie Chart.4.5; Table.4.18; Pie Chart.4.10). Nevertheless, both groups' claims highlight a deficiency in reading acquisition. Research has shown that phonological awareness follows a systematic progression in which learners acquire basic skills before progressing to more difficult ones (Chard and Dickson, 1999) (Chapter 2, Section.2.4). This linear progression seems to be overlooked by pupils when learning to read as there is disproportionate focus on phoneme awareness which is the hardest and the final skill to be acquired in phonological awareness, while other basic skills such as onset rime awareness and syllable awareness seem to be neglected or acquired in a less structured way **(**Chapter 4, Section.4.1.1; Section.4.1.2; Section.4.1.3; Section. 4.1.4).

Regarding differences, the results showed that fourth-year pupils generally displayed a higher interest in reading in English compared to first-year pupils. As well, a higher percentage of fourth-year pupils expressed satisfaction with their teacher's method of teaching reading compared to the first-year pupils (Chapter 4, Pie Chart.4.2; Pie Chart.4.7; Bar Chart.4.1; Bar Chart.4.3; Bar Chart.4.4; Bar Chart 4.6). These results correspond Vlachos and Papadimitriou's (2015) study, which indicated that older schoolers show more maturation and have better reading competence compared to their younger counterparts. In addition, first-year pupils struggled more with word comprehension, reading speed, and word recognition (Chapter 4, Table.4.7), while fourth-year pupils faced extra challenges related to negative transfer, decoding unfamiliar words, and a shortage of reading materials (Chapter 4, Table.4.14; Question 8). This indicates that both groups of pupils demonstrate signs of poor reading (Adams, 1990) (Chapter 1, Section.1.4.1). Nonetheless, fourth graders emphasized more on language interference and recognizing infrequent words showing a greater awareness of their reading deficiencies (Grabe 1991, 2009; Grabe and Kaplan 2014; Nation, 2008; Kusiak, 2013). Above all, the suggestions provided by first-year pupils focused on dedicating more time to reading and speaking skills,

whereas fourth-year pupils' recommendations included finding interesting reading materials, teaching grammar rules, and incorporating phonics through poems, songs, and rhymes (Chapter 4, Section.4.2.1; Section.4.2.2; Question 16). These findings are consistent with research demonstrating higher reading literacy levels among older pupils compared to younger pupils. Fourth graders showed more positive attitudes towards the inclusion of phonics in reading instruction (Vestheim, et al., 2019; Chen, Khalid, and Buari, 2019).

To sum up, the findings suggested that both first and fourth-year pupils recognized the importance of reading skills. The fourth-year pupils, being more experienced in learning English, showed a higher interest in reading and had a more satisfaction towards teaching methods. The specific challenges faced by each group varied, reflecting their different levels of reading proficiency.

6.1.3. Teachers' Attitudes towards the Integration of Phonological Awareness into Reading Instruction

The analysis of the teacher questionnaire provided some interesting insights into the participants' characteristics and their perspectives towards the integration of phonological awareness in middle school reading instruction. In terms of participant information, the data revealed that the participants had considerable teaching experience ranging between 11 to 20 years. Moreover, the participants were teaching various grade levels, with an equal distribution across first, second, third, and fourth-year pupils. This indicates that the participants' perceptions on the subject under investigation can be considered credible and reliable (Chapter 4, Table.4.20; Table.4.22).

Regarding reading instruction, the majority of teachers expressed satisfaction with the current approaches used to teach reading. They mentioned that these approaches improve pupils' oral, auditory, lexical, and critical thinking skills. They also assured that these approaches boost pupils' independent reading and promote their self-confidence and emotional well-being (Chapter 4,

Table.4.23). Besides, the majority of them considered "text comprehension" as the most important reading skill to teach in middle school. A smaller proportion of participants chose "vocabulary" and "fluency" as important skills, while an even smaller proportion selected "phonological awareness" and "phonics" (Chapter 4. Bar Chart.4.7).These results are congruent with pupils and inspectors' views (Chapter 4, Table.4.8, Table.4.15, Table.4.30, Table. 4.31). Moreover, they align with the reviewed literature because it demonstrates that reading is more than pronouncing words. It is a critical thinking-process which enables learners to extract explicit and implicit meanings from a given text (Davies, 2018, Betts, 1961) (Chapter 1, Section.1.2.1). The participants' perceptions suggested that the current approaches to teaching reading are whole language approaches which give more emphasis to meaning at the expense of other reading skills. Thus, much criticism has been labeled to this type of approaches as it undervalues the importance of skill development, particularly the explicit instruction of the alphabetic principle and phonic decoding skills (Westwood, 2004) (Chapter 1, Section.1.6.1).

Regarding phonological awareness instruction, the results indicated that the participants had relatively low perceptions of the importance of phonological awareness in learning to read. The majority of EFL teachers declared that they rarely included phonological awareness in their teaching plans (Chapter 4, Pie Chart.4.11; Table.4.24). This implies that the teaching of phonological awareness is not given a significant amount of time in Algerian middle schools. Additionally, the largest proportion of them reported that they neither used (PA) activities to assess pupils' reading abilities nor designed (PA) learning centers to specifically target and reinforce pupils' phonological awareness skills (Chapter 4, Pie Chart.4.12; Table.4.25). Moreover, the Likert Scale's mean scores related to phonological awareness as an essential prerequisite to reading were generally low, ranging between 1.60 and 2.80 (Chapter 4, Table.4.27). The data thus suggested that most participants did not consider phonological awareness instruction as crucial for developing reading skills. For example, participants did

not recognize that phonological awareness focuses on phonemes in words and involves isolating and blending sounds (Chapter 4, Table.4.27). Besides, the results showed that EFL teachers prioritized teaching phoneme awareness over other phonological skills such as onset rime awareness (Chapter 4, Table.4.26). Additionally, the majority of EFL teachers disapproved with the notion that phonological awareness is a strong predictor of children future reading ability as indicated by item 7 (M=2.80; SD=.837) (Chapter 4, Table.4.27). Moreover, they rejected the assertion that using phonological awareness is effective for preventing future reading difficulties (Chapter 4, Table.4.27). They also mentioned that the formal instruction of phonological awareness did not hold much value in the middle school curriculum and this affected pupils' ability to decode, pronounce, and understand English words (Chapter 4, Question 9). This infers that many EFL teachers at Tayeb Boulahrouf Middle School may not be fully aware of the crucial role phonological awareness plays in developing children's reading and spelling abilities. These findings are in contrast with the conclusions drawn from the literature review. A huge bulk of research has demonstrated that training in phonological awareness can have a facilitating effect on subsequent reading acquisition (Lundberg, Frost, and Peterson, 1988; Phillips et al., 2008; Bentin, 1992; Bayetto, 2014) (Chapter 2, Section.2.3).

In short, the obtained results showed that phonological awareness and phonics training might not yet be a focal point for EFL teachers at Tayeb Boulahrouf Middle School, indicating a potential gap in explicit and systematic instruction and practice in these areas. The findings corroborate EFL inspectors' claims that phonological instruction lacks curricular importance despite established benefits (Chapter 4, Table.4.30; Table.4.34; Table.4.35). Furthermore, these findings are consistent with the results of document analysis which demonstrated the unsystematic approach of teaching (PA) skills in textbooks (Chapter 4, Section.4.1.1; Section.4.1.2; Section.4.1.3; Section.4.1.4). Therefore, the results indicated the need for enhancements in integrating phonological awareness assessment and instruction within Algerian middle

school classrooms, as well as in teacher training programs.

6.1.4. Inspectors' Views on the Integration of Phonological Awareness in Reading Instruction

The inspector semi-structured interview revealed that the majority of EFL inspectors had a working experience ranging from 6-20 years. This suggests that the participants' views were likely to be reliable (Chapter 4, Table.4.29).

Regarding reading instruction, the main problems identified by the inspectors in EFL learners' reading at middle school included poor reading comprehension and basic language skills (Chapter 4, Table.4.30; Table.4.31). The participants emphasized the need for tailored interventions and comprehensive approaches to support learners' specific needs and characteristics. The findings coincide with the pupils' perspectives, as evidenced by their belief that "comprehension" constitutes the most challenging aspect of reading (Chapter 4, Table 4.7; Table 4.14). This suggests a shared perception between inspectors and pupils that the teaching of 'text comprehension' holds paramount importance in EFL classrooms. However, the literature review contradicts this notion by establishing that reading competence entails more than comprehension. Emphasizing comprehension as the ultimate goal of the reading process, it emphasizes that proficient readers should also possess strong decoding and accuracy skills, as deficiencies in these areas can lead to difficulties in reading comprehension (National Reading Panel, 2000; Fuchs et al, 2001; LaBerge and Samuels, 1974; Walczyk, 2000) (Chapter 2, Section.2.8.2; Section.2.8.2.1).

Concerning phonics instruction, the largest proportion of EFL inspectors (46,7%) agreed that teaching middle school pupils' letter-sound correspondences or phonics is crucial for developing reading competence (Chapter 4, Table.4.32). This corresponds with the literature review highlighting the importance of phonics instruction. Research shows that phonics equips novice readers with the necessary word recognition skills and help them become fluent (Adams, et al.,

1998; Howe, 2012; Bald, 2007, National Reading Panel, 2000) (Chapter 1, Section.1.6.2). However, a significant portion of EFL inspectors (33.3%) disagreed, stating that the impact of phonics on reading competence is minimal compared to the phonetic consistency of the English language (Chapter 4, Table.4.32). They argued that other approaches, such as vocabulary development, may be more effective. Additionally, a significant number of them (46.7%) expressed the opinion that an emphasis on phonics can detract from comprehension, stating that an exclusive focus on phonics may hinder the development of other reading skills and strategies necessary for comprehension (Chapter 4, Table.4.35). These assertions are at odd with research that indicates children taught via phonics-based approaches produce more accurate words than children taught via whole language approaches. Research also finds that phonics-based instruction enhances primary school EFL learners' reading competence underlying phonemic awareness and non-word reading skills (Bruck et al. 1998; Huo and Wang, 2017) (Chapter 1, Section.1.6.2). The findings also indicated that a considerable number of respondents believed that a large sight-word vocabulary can compensate for poor decoding skills (Chapter 4, Table.4.30; Table.4.33). They argued that recognizing words automatically without relying on decoding strategies can help struggling readers understand and comprehend many words. Nevertheless, research indicates that a child who employs a "sight-word" method may only learn to recognize specific words, potentially struggling with unfamiliar words or those whose sounds or meanings have faded from memory (Adams et al., 1998; Howe, 2012; Bald, 2007; National Reading Panel, 2000) (Chapter 1, Section 1.6.2). Moreover, decoding skills emerge as a primary determinant of reading proficiency in the early grades and significantly contribute to reading ability in adulthood, as demonstrated by studies such as those by Juel (1988), Stanovich (1991), and Cunningham and Stanovich (1997) (Chapter 1, Section 1.7.2.1).

The major findings about inspectors' attitudes towards the relevance of phonological awareness instruction demonstrated that the majority of Algerian

EFL teachers did not value the significance of the phoneme (Chapter 4, Table.4.36). This is due to phonology being excluded from or not adequately covered in EFL teaching course plans and the lack of training materials in Algerian middle schools. This comes in accordance with the findings from the teacher questionnaire which indicated that most EFL teachers did not include phonological awareness in their daily courses as well as they did not employ (PA) tasks to assess their pupils' reading abilities (Chapter 4, Pie Chart.4.12; Table.4.24). Research, however, highlights the significance of phonology to acquire 'reading skills' since most of children start 'reading instruction'; when they are exceptionally 'skilled users' of a 'spoken language (Fowler, 2011) (Chapter 1, Section 1.6.2). The results also showed that the majority of respondents viewed phonological awareness training as necessary for developing good reading competence (Chapter 4, Table.4.37). Similarly, they assumed that phonological awareness is a prerequisite for proficient reading. They believed that phonological awareness provides a foundation for understanding the relationship between sounds and letters (Chapter 4, Table.4.38). Additionally, the participants emphasized the beneficial effects of using various phonological awareness activities such as rhyme games, sound blending, segmenting activities, and phonics activities in order to foster pupils' reading competence (Chapter 4, Section.4.4, Rubric.3, Question 4). These results are congruent with the literature review where research stresses the positive effects of phonological awareness on later reading acquisition (Olofsson and Lundberg, 1985; Lundberg, Frost, and Petersen, 1988; Tunmer et al., 1988) (Chapter 2. Section.2.8).

Briefly, the findings indicated a lack of value placed on phonological awareness by Algerian EFL inspectors, despite its significance for reading competence. A majority denied the impact of phonological awareness proficiency on pupils' reading acquisition. They believed that underlying language deficits such as vocabulary better explain reading comprehension difficulties. Several claimed reading deficiencies exceeded phonological awareness skills' influence, overlooking how fundamental phonics and

phonological awareness enable higher- order parsing. Therefore, the need for explicit instruction, integration into reading instruction, and the use of various resources and activities to develop phonological awareness were emphasized by EFL inspectors.

6.1.5. Major Findings Regarding Teachers' Attitudes and Inspectors' Views on Phonological Awareness

Triangulating teacher questionnaire and inspector interview results revealed converged and divergent views on the integration of phonological awareness in middle school reading instruction.

Concerning similarities, both groups emphasized the importance of "text comprehension" in reading instruction, aligning with pupils' perspectives (Chapter 4, Table. 4.7; Table.4.14). Besides, both teachers and inspectors identified poor reading comprehension as the most significant problem in EFL learners' reading at middle school (Chapter 4, Bar Chart.4.7; Table.4.30; Table.4.31). This implies that both groups place more attention to teaching "word comprehension" compared to instructing "word recognition", "fluency", and "phonological awareness" skills. However, Hagtvet (2003) suggests a high degree of interdependence between reading comprehension and decoding (Chapter 2, Section.2.7). Moreover, research shows that the development of reading fluency is linked with improved reading comprehension (Potter and Wamre 1990; Reutzel and Hollingsworth, 1993; Pikulski and Chard, 2005; Cadime et al., 2017) (Chapter 2, Section. 2.8.2).

Concerning discrepancies, the findings demonstrated that EFL teachers expressed satisfaction with current reading instruction approaches, highlighting improvements in various skills and boosting pupils' confidence when learning to read (Chapter 4, Table.4.23). EFL inspectors did not directly address their satisfaction but focused on identified problems such as deficiencies in basic language skills (Chapter 4, Table.4.31). Additionally, EFL teachers exhibited

lack of interest in incorporating phonological awareness in reading instruction (Chapter 4, Pie Chart.4.11; Table.4.24). Inspectors did not comment on EFL teachers' practices but emphasized the lack of value placed on phonological awareness by middle school English teachers (Chapter 4, Table.4.36). EFL teachers also reported low usage of (PA) activities to assess pupils' reading abilities and lack of (PA) learning centers (Chapter 4, Pie Chart.4.12; Table.4.25). Inspectors, while not directly addressing these practices, emphasized the need for explicit instruction, integration, and various activities to develop phonological awareness (Chapter 4, Table.4.37). Besides, the results showed that EFL teachers seemed less inclined to prioritize phonological awareness, potentially contributing to a gap in systematic instruction, while EFL inspectors emphasized the need for explicit (PA) instruction and integration (Chapter 4, Table.4.27; Table.4.37; Table.4.38). This implies that EFL teachers' perceptions contradict with substantial evidence demonstrating the benefits of phonological awareness training for beginning readers (Lundberg et al., 1988; Lonigan et al., 1998; Torgesen and Mathes, 1998; Foy and Mann 2003; Carroll et al., 2003; Phillips et al., 2008) (Chapter 2, Section.2.4). Nevertheless, inspectors' favorable attitudes toward the integration of phonological awareness (PA) in reading instruction did not extend to their views on the effectiveness of phonics in reading instruction. Findings indicated that a significant proportion of inspectors held the belief that decoding hinders comprehension, revealing a lack of emphasis on the essential role of phonics in achieving comprehension. This contradicts studies emphasizing the critical role of decoding in attaining proficient reading comprehension (National Reading Panel, 2000; Fuchs et al., 2001) (Chapter 2, Section.2.8.2).

In general, the comparative analysis revealed a difficulty of addressing phonological awareness in Algerian EFL middle schools. The findings suggested a prospective need for professional development and enhanced communication between EFL teachers and EFL inspectors to align instructional practices with the recognized importance of phonological awareness in reading acquisition.

In fact, the previous sections shed light on the most important findings emerging from the qualitative data obtained during the exploratory phase. The coming sections present a discussion and interpretation of the quantitative data obtained during the quasi-experimental phase.

6.2. The Contribution of Explicit Phonological Awareness Instruction to Pupils' Reading Competence

The second phase of the research aimed at finding out whether explicit instruction of phonological awareness fosters the reading competence of First- and Fourth-middle school-level EFL learners, TB MS Kouba, Algiers. Thus, this section delineates an interpretation of the quantitative data derived from pre-posttests scores on phonological awareness and reading competence, in an attempt to answer the following major question in the quasi-experimental phase:

RQ2: What is the contribution of explicit phonological awareness instruction to the reading competence of First- and Fourth-middle school-level EFL learners, TB MS Kouba, Algiers?

6.2.1. The Contribution of Explicit Phonological Awareness Instruction to the Development of Pupils' Phonological Awareness Skills

An overall analysis of the phonological awareness tasks revealed that the experimental groups outperformed the control groups significantly in the overall post-test phonological awareness scores for both first and fourth grades. In the first-grade experimental group, notable score improvements were observed from pretest to posttest across all task levels. For instance, the mean scores for onset rime awareness tasks increased from (M=5.15, SD=1.69) to (M=7.35, SD=1.38) for segmentation and from (M=6.30, SD=1.75) to (M=7.80, SD=1.60) for blending (Chapter 5, Table.5.6). The fourth-grade treatment group exhibited even more substantial gains across all task levels after dedicated phonological awareness instruction. Despite fourth graders initially possessing stronger phonemic aptitude due to prior exposure to English, the intervention still elevated

key phonological competencies, such as sentence segmentation by an average of 1.4 points and phoneme blending by nearly 1.5 points (Chapter 5, Table.5.27). The obtained p-values from the comparison of pre and post-test results of the first and fourth grades' experimental groups were consistently smaller than the conventional alpha level (0.05) in all tasks, indicating statistical significance (Chapter 5, Table.5.7; Table.5.28). These results suggested that explicit instruction in phonological awareness had a significantly more beneficial and effective impact on building learners' phonological awareness skills. This aligns with research indicating that training in phonological awareness is highly effective for improving phonological awareness in children, which in turn prepares them to read words and comprehend texts (National Reading Panel 2000) (Chapter 2; Section.2.4).

Conversely, the first and fourth grades control groups negligible score changes despite generalized English study reaffirmed traditional instruction could not install phonological proficiency essential for successful L2 reading acquisition. Explicit (PA) instruction prioritizing meta-linguistics demonstrably enables pupils to parse larger sound structures into constituent phonemic elements (Lundberg et al., 1988) (Chapter 2; Section.2.4). These data conflict with EFL teachers and inspectors' doubts about necessity for guided (PA) activities when the middle school English textbooks themselves focus more holistically on "word comprehension" devoid such grounding (Chapter 4, Bar Chart.4.7; Table.4.30). Findings obtained from literature review, however, maintain arguments that reading is a constructive process requiring several deliberate subskills such as decoding and accuracy, not naturalistic absorption of words meaning alone (Cain and Oakhill, 2006) (Chapter 2, Section.2.8.3).In this respect, Jorm and Share (1983) argued that phonological decoding skills are necessary to reading acquisition because they act as self-teaching mechanisms which enable children to recognize words visually (Chapter 2, Section.2.8). Moreover, fluency is generally acknowledged as a critical component of skilled reading; it serves as an indicator of overall reading competence (National

Reading Panel, 2000; Fuchs et al, 2001) (Chapter 2. Section.2.8.2).

In conclusion, the findings indicated that the (PA) intervention had a positive and significant impact on the phonological awareness skills of first-and fourth grade experimental groups. The treatment groups showed significant improvements in posttest scores compared to their own pretest scores and the control groups' posttest scores. In contrast, the control groups, which did not receive the PA training, did not show significant improvements in their phonological awareness skills.

6.2.1.1. Major Findings Obtained from the First- and Fourth-year Pretest and Posttest's Scores

Comparing results across first- and fourth-year groups revealed that pupils in both levels improved phonological awareness and reading competence from targeted explicit instruction unavailable through standard classroom exposure (Chapter5, Table.5.6; Table.5.27; Table.5.12; Table.5.13; Table.5.33; Table.5.34) For both cohorts, phonological awareness training yielded significant skill gains that closed initial gaps for those lacking reading mastery, while controls trended stagnant.

However, average posttest scores revealed fourth years achieved higher absolute phonological proficiency after equal (PA) training sessions (Chapter 5, Table.5.6; Table.5.27). This likely reflected cognitive maturation enabling faster assimilation of complex phoneme manipulation such as segmentation. This observation is consistent with findings in the literature, suggesting that as children grow older, they tend to acquire more advanced and intricate phonological awareness skills (Chard and Dickson, 1999; Hougen, 2016; Woldmo, 2018; Justice and Pence, 2005) (Chapter 2, Section.2.2). Nonetheless, first year pupils showed sizeable improvements on phonological awareness skills such as rhyming and blending compared to fourth year pupils. This predicted strengthened future reading literacy as beginning learners build familiarity with

the new learnt language. This finding is analogous with the claim that tasks involving blending (synthesis) are generally more manageable for novice learners compared to tasks involving analysis (Yopp 1988; Torgesen et al., 1992; Phillips et al., 2008, Yopp and Yopp, 2010) (Chapter 2, Section.2.2).

Remarkably, fourth-grade pupils demonstrated accelerated progress in both reading fluency and comprehension. This suggests that (PA) treatment contributed to a more solid foundation in establishing initial sound-symbol connections, ultimately accelerating the decoding process (Chapter 5, Table.5.12; Table.5.13; Table.5.33; Table.5.34). This aligns with research on the effect of age and gender on children reading performance. Studies indicate that the older children having better scores than younger ones for reading fluency, reading comprehension, and the total reading performance (Vlachos and Papadimitriou, 2015; Vestheim et al., 2019; Chen, Khalid, and Buari, 2019) (Chapter 1, Section.1.2.1).

All in all, phonological awareness interventions demonstrated consistent utility boosting first-and fourth year pupils' phonological awareness skills as well as fostering their overall foundational reading literacy at Tayeb Boulahrouf Middle School, Algiers. Therefore, incorporating (PA) activities to skill level while regularly teaching reading could yield positive outcomes for middle school EFL learners.

6.2.2. The Contribution of Explicit Phonological Awareness Instruction to the Development of Pupils' Reading Competence

The major findings from the analysis of reading competence tasks scores indicated that the first- and fourth-year experimental groups showed a significant improvement in all tasks.

Regarding first graders, the mean score of word recognition boosted from (M=10.70) to (M=13.20) (t = 9.74, p < 0.05), indicating improved word recognition ability. For pseudo-word recognition, the mean score jumped from

(M=11.75) to (M=13.80) (t = 5.71, p < 0.05), indicating improved ability to recognize pseudo-words (Chapter 5, Table.5.12; Table.5.13). Mean scores of recognizing words such as "take" and invented fake words (pseudo-words) such as "grup" increased over 2 points, demonstrating enhanced ability applying letter-sound rules to decode words. This aligns with Share's (1995) self-teaching hypothesis that phonological decoding allows accurate word recognition and proficient spelling (Chapter 1, Section.1.6.2.1). It also supports Hoover and Gough's view (1990) that linguistic comprehension depends partly on accurate, automatic decoding (word-recognition) (Chapter 2, Section.2.8.2.2). For reading fluency, the mean score enhanced from (M=159.94) to (M=191.82) (t = 7.32, p < 0.05), indicating improved reading fluency (Chapter 5, Table.5.12; Table.5.13). The results showed that reading fluency rates boosted by nearly 33 words per minute after phonological awareness training targeting pacing and prosody. This evidences that (PA) treatment improved pupils' ability to decode words rapidly and parse them into sounds to extract meaning. The data conflicts with EFL inspectors' assertions about fluency being weakly tied to low-level decoding (Chapter4, Table.4.30) Data rather confirms theories positing how subcomponent automaticity releases resources for comprehension (LaBerge and Samuels, 1974) (Chapter2, Section.2.8.2.1) For reading comprehension, the mean score increased from (M=39.30) to (M=42.45) (t = 5.68, p < 0.05), demonstrating an increase in reading comprehension ability. The inferential analysis confirmed that these improvements were statistically significant (Chapter 5, Table.5.17; Table.5.18). This demonstrated enduring sensitivity to comprehension deficits from un-remediated phonological gaps impeding fluency (Melby-Lervag et al., 2012). It substantiates theories that subcomponent inefficiencies bottleneck comprehension (Perfetti, 1985) (Chapter 2, Section.2.8.1).

However, the control group showed some improvements in word recognition and pseudo-word recognition skills, but they were not statistically significant as confirmed by the inferential analysis. Reading fluency did not show a significant improvement in the control group. In contrast, the control

group demonstrated a statistically significant improvement in reading comprehension from the pretest to the posttest. The mean score for the pretest was (M=30.95), and the mean score for the posttest was (M=33.45) (t = 2.88, p < 0.05), indicating an increase in reading comprehension ability (Chapter 5, Table.5.14; Table.5.15; Table.5.19; Table.5.20).

Regarding fourth graders, the experimental group indicated a significant improvement in word recognition ability from the pretest (M = 11.75) to the posttest (M = 14.10) (t = 8.57, p < 0.05). The experimental group also demonstrated a significant improvement in pseudo-word recognition ability from the pretest (M = 12.70) to the posttest (M = 14.55) (t = 4.88, p < 0.05). Similarly, the experimental group exhibited a significant improvement in reading fluency from the pretest (M = 164.99) to the posttest (M = 196.97) (t = 7.33, p < 0.05) (Chapter 5, Table.5.33; Table.5.34). Mirroring the first graders' pattern, the fourth graders' reading competence data revealed phonological awareness instruction positively impacted real word recognition, pseudo-word recognition, reading comprehension, and reading fluency. The fourth year's experimental group showed significant pretest-posttest gains in accurately pronouncing real words such as "wavy" and invented pseudo-words such as "quam". Demonstrable skill transferring phonemic components into pronunciations likely benefited participants' automaticity to lift holistic fluency over 30 words per minutes. This indicates improved phonological awareness applying sufficient knowledge letter-sound correspondences explains treatment group participants' significant improvement recognizing words and pseudo-words (Adams, 1990) (Chapter 1, Section.1.4.1). The data substantiates the self-teaching hypothesis whereby successful decoding precipitates reading comprehension, with breadth predicting higher reading competence (Share, 1995) (Chapter 1, Section.1.6.2.1). Correspondingly, experimental group showed a significant improvement in reading comprehension scores from the pretest (M= 40.25) to the posttest (M= 43.85) (t = 7.285, p < 0.05) (Chapter 5, Table.5.38; Table.5.39). The significant reading comprehension gains exhibited by the experimental group reaffirmed the

positive impact heightened phonological awareness exerts on higher- order linguistic processing. A 3.6 point average increased in accurately answering questions about complex English texts signals improved integration of meaning during reading following phonological awareness instruction. This finding conflicts with arguments that extensive phonics practice inhibits global comprehension (Barron, 1986) (Chapter 2, Section.2.8.1.1). Rather, it corroborates views that effortless word recognition frees cognitive resources for inferring implied meaning. Enhanced concentration on passages likely derived from accelerated decoding ability activated through targeted (PA) training (Walczyk, 2000) (Chapter 2, Section.2.8.2.1).

Nevertheless, there was no significant difference in word recognition ability between the pretest (M = 10.95) and posttest (M = 11.20) for the control group (t = 0.677, p = 0.506). Likewise, the difference in reading fluency between the pretest (M= 145.12) and posttest (M = 155.46) for the control group (t = 1.221, p = 0.237) was not statically significant. Comparably, the control group did not show a significant difference in reading comprehension scores between the pretest (M= 30.95) and posttest (M= 34.40) (t = 1.680, p = 0.109). In contrast, the control group exhibited a significant improvement in pseudo- word recognition ability from the pretest (M = 10.30) to the posttest (M = 11.50) (t = 2.303, p = 0.033) (Chapter 5, Table.5.35; Table.5.36; Table.5.40; Table.5.41). Passively, regular instruction without explicit decoding emphasis failed automating symbol-sound conversion essential for successful reading competence inside and beyond class (Kuhn et al., 2010).

In short, both grades' experimental groups demonstrated significant improvements in word recognition, pseudo-word recognition, reading fluency, and reading comprehension skills from the pretest to the posttest. These findings suggested that the (PA) intervention had a positive effect on the reading competence skills of the experimental groups. In contrast, the control groups showed significant improvement only in reading comprehension for first graders and pseudo-word recognition for fourth graders, while there were no significant

differences in the other reading competence scores. This indicated that the traditional teaching method employed in the control group was not as effective in fostering reading competence skills compared to the experimental intervention.

6.2.2.1. Major Findings Obtained from the Pearson Correlation Analysis of the Experimental Groups' Reading Competence

The major findings from the Pearson Correlation Analysis of first- and fourth grade experimental groups' reading competence demonstrated strong positive correlations between phonological awareness and all reading competence tasks.

Concerning first year pupils, a robust ($r=0.95$) correlation between phonological and word recognition scores indicated decisive empirical evidence that phonemic proficiency underpins fluent decoding capacity (Chapter 5, Table.5.21). This aligns with literature positing phonological awareness as an essential precursor enabling grapheme-phoneme conversion for decoding words (Chard and Dickson, 1999; Wagner and Torgeson, 1987) (Chapter 2. Section.2.4; Section.2.6). However, the data conflicts with EFL inspectors' assertions that most pupils develop reading competence regardless of metalinguistic sound sensitivity (Chapter 4, Table.4.35). Still elevated correlations approaching ($r = 0.88$) with fluency and ($r = 0.89$) with reading comprehension metrics affirmed skill bridging decoding words to fluency and meaning extraction - the ultimate objective of reading (Chapter 5, Table.5.21). Notably, both word recognition and fluency strongly load reading comprehension too, corroborating Hoover and Gough's (1990) simple view that linguistic comprehension relies on rapid accurate word identification. If recognition suffers from phonological deficits, fluent synthesizing suffers, with collective impact on text comprehension. Hence, phonological awareness demonstrably undergirds processing efficiency generating reading competence- contrary to claims phonological awareness is epiphenomenal when acquiring reading (Chapter 2, Section.2.8.2.2).

Concerning fourth year pupils, the strong positive correlations between phonological awareness and reading competence components replicates the links observed among the first-year cohort. Results demonstrated that phonological awareness skills had a strong positive correlation with word recognition skills (r = 0.87) (Chapter 5, Table.5.42). This supports research indicating the instrumental role of phonological awareness skills deciphering written language through print-to-sound mapping automaticity (Bentin, 1992; Wagner and Torgesen, 1987) (Chapter 2, Section.2.3; Section.2.6). The data also indicated strong associations between reading comprehension skills and word recognition skills (r=0.788) and between reading fluency skills and reading comprehension skills (r=0.72) (Chapter 5, Table.5.42). This comes in accordance with the findings obtained from literature review indicating that word recognition involves processes that interpret written forms into sound-based forms and then land at the meaning of words (Gough and Tunmer, 1986; Catts and Kamhi, 2005) (Chapter 2. Section.2.8.1).

Comparing reading competence correlational patterns between first- and fourth-year experimental groups revealed strong consistency that phonological awareness represented a foundational pillar broadly supporting reading acquisition. For both cohorts, phonological scores strongly loaded word recognition, fluency and comprehension metrics; though more so for beginners (first year pupils) (Chapter 5, Table.5.21; Table.5.42). This aligns with research indicating that at the beginning of the reading acquisition process, children rely heavily on the phonological information in order to decode words successfully (Schiff and Saiegh-Haddad, 2018) (Chapter 2. Section.2.9.2).

The data conflicts with perspectives held by EFL teachers and EFL inspectors that most pupils organically absorb sound- symbol relationships without explicit phonological instruction (Chapter 4, Bar. Chart.4.7; Table.4.32). To the contrary, tight correlations evidencing shared variance signals interdependence between sound sensitivities and reading outcomes. As Adams (1990) established, children facing challenges in discerning and manipulating

sounds within spoken words encounter difficulties in recognizing and acquiring the essential print-sound relationship crucial for achieving proficiency in reading (Chapter 1. Section.1.4.1).

In conclusion, the findings obtained from pupils' pretest and posttest scores highlighted that explicit instruction of phonological awareness led to an improvement in First- and Fourth-middle school graders' phonological awareness skills. This confirmed the first research hypothesis asserting that (PA) training effectively improves learners' phonological awareness skills. Additionally, results from the correlation test indicated a strong foundation in phonological awareness and word recognition leading to higher levels of reading fluency and comprehension. This validated the second research hypothesis, affirming that phonological awareness skills are positively correlated with learners' reading competence. Hence, the statistically confirmed efficacy of phonological awareness in promoting reading proficiency advocates for its prioritized inclusion as a core element in Algerian curricula.

6.3. Pedagogical Implications and Recommendations for Future Research

The study revealed a significant gap in the systematic incorporation of phonological awareness instruction in Algerian middle school English curriculum materials. The pedagogical implications derived from the research findings can be considered in light of the existing literature on phonological awareness and reading instruction. The following points highlight the key pedagogical implications of the study:

1. Integration of Phonological Awareness in EFL Reading Instruction:

The current research strongly supported the pedagogical value of explicit instruction in phonological awareness for middle school EFL learners. The positive effect of the explicit phonological awareness instruction on both first- and fourth-grade pupils' phonological awareness skills aligns with existing research highlighting the importance of explicit training in phonological

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awareness for fostering (PA) skills and reading abilities (Chard and Dickson, 1999; Wagner and Torgesen, 1987; Lundberg et al., 1988; National Reading Panel, 2000). Therefore, EFL curriculum designers should focus on integrating age-appropriate and engaging phonological awareness activities into the curriculum (Chard and Osborne, 1999).

2. Sequential Phonological Awareness Development:

The research demonstrated that current practices lack coherent sequencing or clear objectives for building early reading foundations through phonological awareness activities. Pedagogical interventions should focus on developing a systematic and sequential approach to phonological awareness instruction, recognizing that children's sensitivity to sounds develops along a continuum. This could involve revising English textbooks to include structured and sequenced phonological awareness tasks that serve to different levels, such as rhyming and alliteration, syllable awareness, onset-rime awareness, and phoneme awareness (Chard and Dickson, 1999).

3. Incorporation of Phonics in Reading Instruction:

The study noted a predominant focus on meaning-based approaches in the intensive reading curriculum, potentially neglecting decoding and accuracy skills. Pedagogical practices should consider incorporating phonics elements through creative and enjoyable activities such as nursery rhymes, alliterative texts, and songs and chants that play with words (Yopp, 1995; Adams, 1990). This implies the need for a balanced approach to reading instruction that integrates both meaning-focused and phonics-focused activities. This balance should encompass decoding, fluency, and comprehension skills, acknowledging the interconnectedness of these skills in the reading process. This accords with research suggesting that phonics instruction can contribute to improved reading proficiency (Lemons and Fuchs 2010, Fowler, 2011). This connection can be seen on how phonological awareness training positively affects learners' ability

to decode and recognize words accurately (LaBerge and Samuels, 1974; Share, 1995; Adams, 1990).

4. Early Emphasis on Phonological Awareness for Beginners:

The obtained data revealed that beginners (first-year pupils) tended to rely more heavily on phonological information in the early stages of reading acquisition. This aligns with research suggesting that, at the beginning of the reading process, children heavily depend on phonological cues to decode words successfully (Schiff and Saiegh-Haddad, 2018). Pedagogically, this implies that early reading instruction should place a strong emphasis on developing phonological awareness skills to establish a solid foundation for subsequent reading proficiency.

5. Teacher Training and Awareness:

The study demonstrated that many EFL teachers were not fully aware of the fact that phonological awareness is the foundational skill for reading. Many EFL teachers claimed that they prioritized phoneme awareness over other phonological awareness skills. Besides, they did not use phonological awareness assessment activities to evaluate their pupils' reading ability. Thus, the study implied a need for enhancements in teacher training programs to ensure that they are equipped with the knowledge and skills to integrate explicit phonological awareness instruction into their reading programs (Chard and Dickson, 1999; National Reading Panel, 2000).

6. Alignment with Inspectors' Views:

Pedagogical interventions should facilitate communication and collaboration between EFL teachers and EFL inspectors to bridge the gap in perceptions regarding the importance of phonological awareness. They also should encourage a shared understanding of the significance of phonological awareness in reading development and the need for its integration into

instructional practices.

7. Reading Materials and Engagement:

The study revealed variations in reading engagement between first-year and fourth-year pupils. To address this, pedagogical strategies should involve providing a diverse range of reading materials that cater to different interests and proficiency levels. This corroborates with literature emphasizing the effect of age on reading acquisition (Vlachos and Papadimitriou, 2015; Vestheim, et al., 2019; Chen, Khalid, and Buari, 2019). Additionally, teachers should encourage extensive reading habits, fostering a love for reading outside the classroom (Nuttall, 1982; Elley, 1996; Day and Bamford, 2002; Grabe, 2002).

8. Addressing Reading Challenges:

The findings reported that first and fourth year pupils' main reading difficulties include word comprehension, reading speed, word recognition, and pronunciation. Pedagogical interventions, thus, should target these specific challenges by incorporating strategies that enhance word recognition, decoding, and comprehension skills. This aligns with literature emphasizing the importance of addressing lower-level reading skills as precursors to reading comprehension (LaBerge and Samuels, 1974).

9. Monitoring and Assessment:

The data demonstrated that phonological awareness assessment activities had beneficial impact on pupils' phonological awareness skills. This aligns with literature indicating that assessing learners' (PA) skills identify learners at risk as well as evaluate the progress of learners who are receiving instruction in phonological awareness (Chard and Dickson, 1999). Hence, pedagogical interventions should establish mechanisms for monitoring and evaluating the implementation of phonological awareness instruction in middle school classrooms. Moreover, they should regularly assess the effectiveness of

instructional practices and make data-driven adjustments to improve the integration of phonological awareness.

In conclusion, the pedagogical implications drawn from the study underline the importance of explicit phonological awareness instruction in middle school EFL settings. These implications can inform curriculum development, instructional practices, and teacher training programs to better support the development of reading competence among learners.

Though the current survey showed that explicit phonological awareness instruction might improve Algerian pupils' reading acquisition, it represented just an initial investigation within a ripe landscape for illuminating optimal application of this pedagogical approach. As a pioneering examination customized for the context, it helped chart directionality for subsequent work rather than definitively delineating ideal implementations. Accordingly, findings indicated numerous promising avenues for further exploration through both expansion and refinement:

- Broaden sample diversity and scale by conducting multi-school studies recruiting demographic variance reflective of the heterogeneous population. Boosting statistical power would confirm generalizability transcending a single environment.

- Explore whether phonological awareness training have positive impacts on Algerian children with reading disabilities.

- Scrutinize the most effective techniques for teaching phonological awareness and their integration into early childhood education environments.

- Examine the impact of Algerian EFL learners' phonemic awareness, onset rime awareness, or syllable awareness on their reading competence.

- Analyze the contribution of phonological awareness on Algerian secondary and tertiary students reading competence.

In total, while affirming positive preliminary phonological awareness instruction outcomes, next-phase inquiries can fruitfully expand samples, optimize configurations, productively support struggling students through personalization. It can also formally convey concrete methods for adoption, and unify access to resources that collectively weave evidence-based literacy fundamentals through the institutional fabric. Pursuing these avenues provides data-driven guidance on effectively realizing the national promise early language trembling offers youth advancement.

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Conclusion

The results presented in this chapter supported the idea that phonological awareness is a foundational skill for reading competence. Moreover, it emphasized that phonological awareness is highly correlated with word recognition, word fluency, and reading comprehension. Besides, it highlighted the importance of including phonological awareness in reading classes in Algerian middle schools.

The current chapter provided some suggestions about teaching reading to middle school EFL learners in Algeria. Indeed, it offered some effective procedures and practices that boost the acquisition of reading skill in general and phonological awareness skills in particular.

In sum, the obtained results stressed the necessity of including a phonics-based reading approach in Algerian middle schools' curricula. It provided proposals about how to design more effective reading programs and how to motivate pupils to become good readers. Above all, it gives some suggestions for researchers to investigate some uncovered areas or to redress some limitations in this research.

GENERAL CONCLUSION

In the context of middle school English as a Foreign Language (EFL) education in Algeria, the acquisition of proficient reading skills is crucial for academic success. Despite a four-year exposure to the English language, middle school pupils in Algeria often exhibit weak reading proficiency. This underscores the pressing need to reevaluate the approach to reading instruction at the middle school level. Recent research in the field has rekindled interest in reading as a functional skill that enhances language learning. Scholars have also emphasized the intricate relationship between reading and phonological awareness skills, highlighting the significance of integrating phonological awareness into reading instruction. This research endeavored to propose an academic framework for phonological awareness instruction, aiming to enhance the reading competence of middle school EFL learners. The proposed framework involves explicit phonological awareness (PA) instruction, wherein pupils are trained to manipulate sounds in spoken language, facilitating more accurate decoding and reading of words. The research sought to address the following key research questions:

RQ1: What is the place of phonological awareness in EFL reading instruction, at Tayeb Boulahrouf Middle School (TB MS) Kouba, Algiers?

RQ2: What is the contribution of explicit phonological awareness instruction to the reading competence of First- and Fourth-middle school-level EFL learners, TB MS Kouba, Algiers?

The research hypotheses guiding this study were as follows:

H.1. Explicit instruction of phonological awareness leads to an improvement in the reading competence of first- and fourth-year middle school learners.

H.2. Phonological awareness skills correlate positively with Learners' reading competence.

The study involved four middle school groups (first and fourth grades)two experimental groups (EXPT) and two control groups (CTRL) at Tayeb

Boulahrouf Middle School, Kouba, Algiers. It aimed to provide empirical evidence regarding the effect of phonological awareness instruction (independent variable) on participants' word awareness, syllable awareness, onset-rime awareness, phoneme awareness, and reading competence (dependent variables).

The research unfolded in two phases: an exploratory phase and a quasi-experimental phase. The exploratory phase incorporated questionnaires, semi-structured interviews with EFL learners, teachers, and inspectors, as well as a corpus-based analysis of textbooks. This phase aimed to illuminate learners' needs, teaching practices, and the alignment of instructional materials with phonological awareness goals. Meanwhile, the quasi-experimental phase involved pretests and posttests administered to two experimental groups and two control groups, each comprising first- and fourth-year learners. The primary objective was to assess the impact of explicit phonological awareness instruction on the reading competence of the experimental groups compared to the control groups. The doctoral thesis was structured into six chapters, each delving into different facets of the research topic to draw academic conclusions.

The literature review consisted of two chapters. The first chapter fathomed the multifaceted nature of the reading skill which covers learning, thinking and problem-solving. Moreover, it shed light on reading and language acquisition, the main purposes of L2 reading as well as the main differences between L1 and L2 reading. Additionally, it explored reading types and reading teaching approaches. Then, it accounted for the importance of phonics-based approach and its connection with reading. Finally, it explained reading competence and its major components. The second chapter scrutinized the relationship between phonological awareness and reading competence. It defined phonological awareness and its major components. Moreover, it presented some effective methods of assessing and teaching (PA) in classroom. Most importantly, it demonstrated the effect of phonological awareness on language literacy skills in general and reading competence in particular. To this end, the research design and methodology were detailed in chapter three. Chapter four described the

results obtained from the exploratory phase. The detailed textbook analysis revealed that phonological awareness proficiency development currently received strikingly minimal emphasis throughout the national EFL curricula guiding classroom reading lessons. The few phonological awareness activities sporadically targeting introductory abilities such as phoneme blending generally lack coherent sequencing or clearly delineated linguistic objectives necessary to methodically scaffold emergent reading literacy. Furthermore, questionnaires distributed to first-and fourth year pupils illuminated a thirst for far more interesting and interactive English reading content better tailored to their evolving reading competency levels. Many pupils of both groups concurrently cited word comprehension, word recognition, reading speed, and pronunciation as persistent reading challenges likely stemming from insufficient phonological awareness instruction. Correspondingly, teachers acknowledged the glaring sparseness of phonological awareness inclusion, measurement or dedicated (PA) training in their instructions and assessments, even while recognizing the fertility of current reading instruction approaches, which they believed promote various language skills such as critical thinking, and independent reading. The interviews with EFL inspectors indicated similarly negligible prioritization of this evidence-backed skill by a majority of EFL educators in practice. While acknowledging the integral role robust decoding plays for fluency, the cohort split on whether explicit phonological decoding ability significantly and independently impacts ultimate reading literacy outcomes given other mediating factors. Nonetheless, several did confirm observable difficulties many adolescents exhibit accurately voicing multi-syllabic terminology pointing to gaps. Chapter five delineated the results obtained from the intensive quasi-experimental phase. It accounted for the intervention impacts gained from explicit phonological awareness training administered to both first and fourth year middle school pupil cohorts. The designed phonological awareness activities progressed in complexity from basic rhyming songs towards sophisticated grapheme translations essential for independently decoding unfamiliar words. Experimental groups showed posttest score improvements across the full range of practiced phonological awareness

skills together with subsequent reading competence metrics that control groups exposed to traditional instruction generally failed to exhibit. Additionally, a barrage of statistical validation redundantly confirmed the tight linkage between pupils' achieved phonological awareness, decoding capacities and higher comprehension proficiency.

Confirming the first hypothesis, the results suggested a positive effect of the explicit (PA) training. The pupils in (EXPT) groups outperformed those in (CTRL) groups, and so they had improved their phonological awareness skills in general and their reading competence scores in particular. Additionally, pupils were noticed to progress over time, particularly in tasks related syllable awareness, and onset rime awareness. Phonological awareness acquisition appeared to be gradual and varied among pupils; therefore, personal variation also played a role and thus should be taken into consideration.

Regarding the second hypothesis, it was confirmed since the results obtained from the Pearson correlation analysis demonstrated that phonological awareness skills had strong positive correlations with word recognition, reading fluency, and reading comprehension skills. These findings stressed the significance of developing phonological awareness skills to improve overall reading competence skills.

In other words, the current research has suggested the incorporation of phonological awareness in middle school reading instruction. That is to say, it proposed a more balanced instructional model for teaching reading by combining two approaches: A meaning-based reading approach which is used to decode the meaning of words on the basis of their surrounding context within the text and a phonics-based approach which is utilized to develop pupils' knowledge and understanding of the relationship between written symbols and sounds. This involves the skills of hearing, identifying and using the patterns of sounds or phonemes to read written language. This instructional framework proved to be more effective when attempting to develop middle school pupils' reading

competence.

Though this study provided valuable insights into the impacts of explicit phonological awareness instruction on reading competence, several limitations were acknowledged:

- The sample size of 80 pupils from one school limits generalizability of findings to the broader Algerian adolescent population. Though sufficient for statistical analyses, focusing on a single institution even in the densely populated capital cannot fully represent nationwide demographic variation. Regional diversity spanning remote villages and urban hubs may entail distinct results.

- There was a shortage of reliable resources and prior research studies on the topic in libraries, which led to using online journals, books and magister /doctoral dissertations.

- The survey was distributed using two methods (i.e., paper-and-pencil for pupils and teachers) and an online distribution for inspectors. These different methods could have influence survey completion rate.

- The questionnaires depended heavily on subjects accurately self-appraising attitudes, behaviors, and skill levels. Actual proficiencies on assessments may differ from described confidence or difficulties on surveys. More objective benchmarks could supplement self-reported data. However, perception itself remains meaningful to guide policies if misaligned with reality.

- The non-randomized quasi-experimental pre-post comparison group design limits claims of causality for phonological awareness driving literacy gains. Maturation or practice effects over the academic year partially explain score changes not from intervention itself. Additional randomized control groups receiving placebo trainings could help infer effects directly attributable to phonological targeting.

- The phonological awareness intervention program was ten 20-minute sessions of phonological awareness training. The training sessions overlapped with the school regulations due to the pandemic (COVID-19), the school mid-term examinations, and the spring holiday. Phonological awareness training requires a longer span of time to acquire results that are more feasible.

- The classroom setting for intervention delivery and testing presents environmental limitations. Normal academic pressures, seating arrangements, peer distractions or instructor variables could influence engagement. A lab setting would control more strictly for ambient influences, strengthening internal validity. However, increased formality trades generalizability to real-world schools.

- Longer follow-up testing could have revealed sustainability of improvements over time and grades. Present gains may reflect transitory phenomena that decay without ongoing training. Tracking persistence would illuminate needs for maintenance or scaffolding instructions towards full independence.

While this exploratory study provided tentative indications that strengthening middle school pupils' phonological awareness might catalyze English reading competence, it remained foundational - necessitating extensive further exploration optimizing interventions for national scaling. In the future, researchers could conduct expansive, long-term inquiries with diverse samples of thousands across multiple regions to conclusively quantify generalizable literacy advantage patterns from phonological training using big data analytics. Future surveys could also track statistically robust literacy score persistence into secondary and higher grades after sustained yearly phonological instruction. Overall, overwhelming accord argues that purposeful, evidence-based phonological advancement merits immense prioritization if Algerian schooling genuinely intends to realize the coveted vision of independence-enabling literate

self-sufficiency for upcoming generations.

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APPENDICES

APPENDICES

Appendix 1: A Self-constructed Evaluation Checklist of Middle School Textbooks with Focus on Phonological Awareness Skills Activities Based on Sheldon (1988) and Cunningsworth (1995) Models

FACTUAL DETAILS

Title: ....   Author(s): ....

No	Items	Yes	No
	A. Aims and approaches		
1.	Who is the target audience for each textbook?		
2.	What approach/approaches to language learning are taken by each textbook?		
3.	What are the main aims of the syllabus for each book?		
4.	How does each book incorporate communicative skills into its curriculum?		
5.	What linguistic concepts are taught in each book?		
	B. Design and organization		
6.	How is each book organized thematically?		
7.	What are the suggested sequences in each book?		
8.	What are the sections/rubrics within each sequence of each book?		
9.	How the sections/rubrics are listed?		
10.	What is the purpose of each rubric, and what skills does it aim to develop in learners?		
11.	How does each rubric reinforce language acquisition?		
12.	How does each rubric assist EFL learners in improving their language skills?		
	C. Skills		
13.	Is there sufficient phonology material		
14.	Are all five skills of phonological awareness (**PA**) adequately covered in each book?		
15.	Are reading passages associated with (PA) activities suitable for middle schoolers' level, interests, etc.?		
	D. Activities and Tasks		
16.	Do the textbooks include material for phonological awareness work?		
17.	In each book, what specific phonemes are targeted for pronunciation practice, and how are they reinforced through tasks?		
18.	What phonological awareness skills are emphasized in each book, and how are they incorporated into tasks and activities?		
19.	How does the progression of phonological awareness tasks evolve throughout the sequences in each book?		
20.	Are phonological awareness skills tasks sufficient to foster middle schoolers' reading competence?		
21.	Do the phonological awareness activities align well with the reading materials provided in the textbooks?		

APPENDICES

Appendix 2:   **Pupil Questionnaire**

This questionnaire is an attempt to collect the data needed for the sake of accomplishing a **PhD** dissertation in which we are investigating **"The Contribution of Phonological Awareness to Developing Algerian EFL Learners' Reading Competence".** Your willingness to help is greatly appreciated. It is that kind of flexibility and dedication that will help this survey to be more credible. Please, be sure that the information you provide will be used for research purposes only. Thus, we kindly ask you to give sincere and precise answers.

➢ **Participants Information**

Put   in the suitable place:

• Gender:

Male ☐

Female ☐

• Age:…………………….

➢ **Section One: Interest in Reading**

1. You started reading English at which stage:

Primary School ☐   Middle School ☐

2. How often do you read in English?

Frequently ☐   Sometimes ☐   Rarely ☐ If rarely, why?

…………………………………………………………………………………………

……………………………………………………………………….

3. How much do you like reading English at classroom?

Very much ☐   Normal ☐   A little bit ☐   Not at all ☐

4. Do you read outside of class?

…………………………………………………………………………………………

…………………………………………………………………………………

If yes, what do you like to read outside of the school curriculum?

…………………………………………………………………………………………

…………………………………………………………………………………………

➢ **Section Two: Learners' Reading Proficiency**

5. How do you evaluate your reading competence?

Excellent ☐   Good ☐   Fair ☐   Bad ☐

6. How do you find learning how to read English:

Easy ☐   Medium ☐   Hard ☐

7. In your opinion, what is the most difficult part of reading?

▪ Word recognition ☐

▪ Reading words with speed ☐

▪ Word comprehension ☐

Why?…………………………………………………………………………………….

………………………………………………………………………………….

8. What are some other difficulties you face when reading?

…………………………………………………………………………………………

………………………………………………………………………………………………………

9. Do you think that pronunciation activities in your textbooks improve your readingcompetence?

Yes ☐

No ☐

   If yes, how? ....

………………………………………………………………………………………………

> **Section Three: Learners' Attitudes towards Teaching Reading Methods**

10. Which method does your teacher use to teach reading?

……………………………………………………………………………………………….

……………………………………………………………………………………......................

11.   What do you think of your teacher's method for teaching reading?

Satisfactory ☐   Unsatisfactory ☐

12. Which skill does your teacher focus more when teaching reading?

Word recognition ☐   Reading words with speed ☐ Wordcomprehension

13. What do you think about the activities used by your teacher to assess your reading?

…………………………………………………………………………………………………

…………………………………………………………………………………………………

14. Does your teacher use phonological awareness activities to teach reading suchas………………………………

- Rhyming and Alliteration (Do these words rhyme: **sun** and **fun?)**

Yes ☐   No ☐

- Sentence Segmentation (count the words in the following sentence:

I come to schoolon time)

          Yes ☐   No ☐

- Onset-rime Segmentation (Break the word "**stand**" into onset and the rime**)**

   Yes ☐ No ☐

- Onset-rime blending (Combine the consonant cluster (the onset: **/sh/**) with the voweland consonant sounds (the rime: **/ip**/)

Yes ☐   No ☐

- Syllable Segmentation (Segment your names into syllables: e.g., **A-hmad**, **Li-na**, and

  Ra-fik.)   Yes ☐   No ☐

- Phoneme Isolation (Does the **/c/** sound come at the beginning, middle, or end of theword **"cat"**?)   Yes ☐   No ☐

- Phoneme Identity/Matching ("Do **pen** and **pin** begin with same sound?")

Yes ☐   No ☐

- Phoneme Categorization/Phoneme Oddity (Which sound does not belong*? stay-make-tray- try."*)   Yes ☐   No ☐
- Phoneme Blending (Combine the following sounds**-/sss/**, /**aaa/**, /**nnn/**, /**d/** to form asingle word)   Yes ☐   No ☐
- Phoneme Segmenting (How many phonemes are there in *pen*?" (three: */p / /e / /n/*))Yes ☐   No ☐

- Phoneme Deletion ("What is *meat* without the */m/*?" (*eat*))Yes ☐ No ☐
- None ☐

15. Do you think that phonological awareness activities can improve your reading competence?
Yes ☐   No ☐

16. What do you suggest for your teacher to help you improve your reading competence?
………………………………………………………………………………………………
………………………………………………………………………………………………
………………………………………………………………………………………………

Appendix 3

Teacher Questionnaire

This questionnaire aims to collect the data needed for the sake of accomplishing a PhD dissertation in which the researcher is investigating **"The Contribution of Phonological Awareness to Developing Algerian EFL Learners' Reading Competence".** Your willingness to help is greatly appreciated. It is that kind of flexibility and dedication that will help this survey to be more credible. Please, be sure that the information you provide will be used for research purposes only. Thus, we kindly ask you to give sincere and precise answers.

Instructions: Throughout the survey, PA will be used for the term *phonological awareness*. ***Phonological awareness*** refers to a student's understanding of how oral language can be divided into smaller units and manipulated in varying ways.

➢ **Section One: Participant Information Put ☐ in the suitable place:**

• **Gender**

Female ☐ Male ☐

• **Years of Middle School Teaching Experience**

0 – 5 Years ☐   6 – 10 Years ☐   11 – 20 Years ☐   Over 20 Years ☐

• Did you graduate from a university or from a teacher training school?

………………………………………………………………………………

………………………………………………………………………………

➢ **Section Two: Middle School Program Information**

1. The middle school grade which you currently teach is:

First year ☐   Second Year ☐   Third Year ☐   Fourth Year ☐

2. Type of middle school program you currently teach is:

All days ☐   Alternate days ☐   Half day ☐

mornings Half day afternoons ☐   Half day morning and half day ☐ afternoon

➢ **Section Three: Reading Instruction**

3. What do you think of the current approaches used to teach reading?

Satisfactory ☐ Unsatisfactory ☐

And, why?…………………………………………..

4. Which reading skill would you consider the most important to teach in the middleschool reading program?

Phonics ☐   Fluency ☐   Phonological Awareness ☐

Text Comprehension ☐ Vocabulary ☐   Print Concept Awareness ☐

5. Where do you allocate time for phonological awareness instruction in your

planning?

Daybook Plans ☐   Lesson Plans ☐ Unit Plans ☐   I don't Include Phonological Awareness in my Plans ☐

6. Would you use a phonological awareness assessment to predict reading abilities?

Yes ☐   No ☐   Undecided ☐

7. Do you have learning centers* which focus only on phonological awareness skills? Yes ☐   No ☐

* Learning centers: designated areas within the classroom that provide students with exciting and interesting experiences to practice, enrich, reteach, and enhance their learning.

8. What type of phonological awareness skills do you formally teach in your middle school classroom?

- Rhyming and Alliteration (eg., do these words rhyme: **Red** and **bed/ hot and hat?**) ☐

- Sentence Segmentation (breaking a sentence into words) (eg., **I love my dog**: How many words did we have in this sentence? ☐

- Onset-rime Segmentation (breaking a word into the onset, the consonant(s) at the start of a syllable, and the rime, the remainder of the syllable) (eg., break the word "**swift**" into onset and the rime**)** ☐

- Onset-rime Blending (combining sounds to form onsets and rimes) (eg., combine the consonant cluster (the onset: **/str/**) with the vowel and consonant sounds (the rime: **/eet**/) ☐

- Syllable Segmentation (identifying how many syllables (or parts) there are in a word) (eg., segment your names into syllables: **A-hmad**, **Li-na**, and **Ra-fik**.) ☐

- Syllable Blending (combining individual syllables within words) ☐

- Phoneme Isolation (recognizing individual sounds in words) (eg., does the **/t /** sound come at the beginning, middle, or end of the word **"fat"**?) ☐

- Phoneme Identity/Matching (recognizing the common sound in different words) (eg., do **top** and **tip** begin with same sound?") ☐

- Phoneme Categorization/Phoneme Oddity (recognizing the word with the odd sound in a sequence of three or four words) (eg., which sound does not belong*? stay-make-tray-try."*) ☐

- Phoneme Blending (combining sounds to form a word) (eg., combine the following sounds **-/hhh/**, **/aaa/, /nnn/, /d/** to form a single word) ☐

- Phoneme Segmenting (breaking a word into separate parts) (eg., how many phonemes are there in *pen*?" *(three: /p / /e / /n/)*) ☐

- Phoneme Deletion (recognizing the word that remains when a letter is removed) (eg., what is *foot* without the */f /*?" (*oot*)) ☐

- I do not formally teach any of these activities. ☐

9. How often do you **formally** assess phonological awareness skills?

Daily ☐   Once a week ☐   1-3 Times a Month ☐   Never ☐

10. What are your perceptions toward phonological awareness instruction in middleschool?

In the following section, please indicate your response to the following statements bycircling the number which rates your level of agreement from 1 to 5, where 1 means youstrongly disagree, and 5 means you strongly agree.

	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
1. PA is an essential reading skill inmiddle school.	1	2	3	4	5
2. PA instruction focuses only on the sounds in words.	1	2	3	4	5
3. Beginning readersshould be able to isolate sounds in words.	1	2	3	4	5
4. Learning to read involves blending sounds to form words.	1	2	3	4	5
5.PA and **phonics instruction*** teachthe same reading strategies.	1	2	3	4	5
6. Phonics should betaught before PA.	1	2	3	4	5
7. PA instruction inmiddle school has an impact on reading in the later grades.	1	2	3	4	5
8. PA instruction can be used to prevent future reading difficulties.	1	2	3	4	5
9. PA should beexplicitly taught withformal lessons.	1	2	3	4	5
10. Daily PA instruction and Activities arenecessary in middleschool.	1	2	3	4	5

Phonics instruction: It is a way of teaching reading that stresses the acquisition ofletter-sound correspondences and their use in reading and spelling.

11. What are some possible difficulties in teaching phonological awareness?………………………………………………………………………………
………………………………………………………………………………………
………………………………………………………………………........................

12. Are there any additional comments about how reading competence can be improvedthrough phonological awareness in your classroom that you would like to add?

………………………………………………………………………………………
………………………………………………………………………………………

Appendix 4

Inspector Interview

Instructions: Reading is an important skill that impacts future learning. As an EFL teacher, you have an important role to evaluate teaching learning process and ensure that specific standards in teaching-learning are being achieved and maintained. This survey will be used to attain a better vision of phonological awareness instruction usage in EFLclassrooms. *Phonological awareness* refers to a student's understanding of how oral language can be divided into smaller units and manipulated in varying ways.

➢ **Section One: Participant Information**

❖ **Gender**
Female ☐ Male ☐

❖ How long have you been working as an EFL teacher?
……………………………………….

➢ **Section Two: Reading Competence**

1. What are the main problems that face EFL learners in reading?
……………………………………………………………………………………
……………………………………………………………………………………
……………………………………………………………………………………
……………………………………………………………………………………

2. What are the causes of these difficulties?
- Deficiencies in basic language skills.
- Inappropriate reading instruction.
- Lack of phonological awareness.

- Please specify: If there are other causes not listed above
……………………………………...
……………………………………………………………………………………
……………………………………………………………………………………
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3. How could reading difficulties and deficiencies be treated?
……………………………………………………………………………………
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➢ **Section Three: Instruction in the Alphabetic Code**

1. Because of spelling and phonetics inconsistencies in English, will teaching EFL learners letter-sound correspondences help them develop their reading competence?
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2. Can a large sight-word vocabulary (the set of words that a child can immediately recognize without use of decoding strategies) compensate for poor decoding skills?

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3. Should EFL learners be encouraged to rely on context or on the alphabetic code torecognize words?

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4. Can emphasis on the alphabetic code detract from comprehension, which is the realpurpose of reading?

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➢ **Section Four: The Relevance of Phonological Awareness Instruction**

1. Is the significance of the phoneme valued by EFL teachers?

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…………………………………………………………………………………………………
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2. Is phonological awareness training necessary to gain good reading competence?

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3. Is phonological awareness more a consequence of reading skill or a prerequisite?

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4. What do you suggest to value phonological awareness as a prerequisite for readingcompetence?

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5. Do you have any additional comments you would like to share?

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………………………………………………………………………………………**THANK YOU**

APPENDICES

Appendix 5

Pretest and Posttest

Full Name: ……………………………………………………………………………

Level: First Year

Gender: Male ☐ **Female** ☐

Age:

How long have you been studying English?

....

➢ **Phonological Awareness Skills Assessment**

▪ **Level 1: Rhyming and Alliteration**

Chard and Dickson (1999) suggest that rhymes are the earliest acquired phonologicalskill.

Task One: Identify, from among three options, the two words that rhyme."Which twowords rhyme *go*, *no*, *now*? **(MBOE1).**

…………………………………………………………………………………………

Task Two: Identify, from among three words, the one that rhymes with the target stimulus.

"Which word rhymes with ''**top**"?" (stimulus word) ("tip, tap, shop)" **(MBOE1).**

………………………………………………………………………………………….

Task Three: Identify, from among these words, the ones that start with the same sound

(MBOE1).

Play/say/today/listen/sit/six.

…………………………………………………………………………………………

▪ **Level 2: Sentence Segmentation**

Sentence segmentation refers to students' awareness that speech can be broken downinto individual words (Chard and Dickson, 1999).

Task One: Break the following sentences into individual words. For example, *He ismyfriend* is composed of four words, viz., *He*, *is*, *my*, and *friend*.

▪ **I try to speak English in class.**

……………………………………………………………………………..

▪ **I do my homework.**

………………………………………………………………………….

▪ **I respect my teachers and my mates.**

………………………………………………………………………….

▪ **Level 3: Syllable Segmentation and Blending**

Activities related to segmenting words into syllables and blending syllables intowords are at the center of Chard and Dickson's continuum.

• **Syllable Segmentation**

Task One: Count the syllables in the following words. For example, *mouthful*: *mouth-ful*.1. Fly……………………………………………………

2. Work…………………………………………………

3. Beautiful………………………………………….

4. Grandpa…………………………………………..

5. Disciplined………………………………………

6. Respect…………………………………………………..
7. Teacher………………………………………………….
8. Pupil…………………………………………………….
9. Lawyer……………………………………………………
10. Brother……………………………………………………

<div align="right">**(MBOE1)**</div>

❖ **Syllable Blending**

Task One: Blend syllables following this example: "I say the word as syllables, youblendthem to make the words. If I say the word *bl-ink* like a robot, you say it fast as*blink*".
1. Beau-ti-ful…………………………………………………………………….
2. Thir-teen …………………………………………………………………….
3. Pic-ture …………………………………………………………………….
4. In-ter-net …………………………………………………………………….
5. Eve-ning …………………………………………………………………
6. Fa-vor-ite …………………………………………………………………….
7. Fam-i-ly …………………………………………………………………….
8. Work-ing……………………………………………………………………
9. Friend-ly……………………………………………………………………
10. Sharp-en-er……………………………………………………(MBOE1)

▪ **Level 4: Onset-rime, Blending and Segmentation**
    Segmenting and blending onsets and rimes comes next in Richard and Dickson's (1999) continuum. It refers to learners' ability to break words into onsets and rimes; meanwhile, blending rimes and onsets into words.

❖ **Onset-rime Segmentation**
Task One: Identify onsets in the following words. For example, which sound is theonset in *pit*?" "The onset is "*p*".
1. Sing………………………………………………………………........
2. Ben………………………………………………………………………
3. Cat ………………………………………………………………………
4. Lady………………………………………………………………………..
5. Live………………………………………………………………………...
6. Vet …………………………………………………………………………
7. Nurse……………………………………………………………………….
8. Book…………………………………………………………………………
9. Girl …………………………………………………………………………
10. Table………………………………………………………………………..

<div align="right">**(MBOE1)**</div>

Task Two: Identify rimes in the following words. For example, which sound is the rimein *pit*?" "The rime is "*it*".
1. Lunch…………………………………………………………………..
2. Watch …………………………………………………………………………
3. Get …………………………………………………………………………
4. Face ………………………………………………………………………

5. Teeth…………………………………………………………………………
6. Nice…………………………………………………………………………
7. Meet…………………………………………………………………………
8. Four…………………………………………………………………………
9. June…………………………………………………………………………
10. Join…………………………………………………………………………

(MBOE1)

❖ **Onset-rime Blending**
   Task One: Blend onsets and rimes "e.g. If you combine the onset *f* and the rime *ar*, youwill have *far*".
1. If you combine the onset *s* and the rime *ay*, you will have……………..
2. If you combine the onset *l* and the rime *ine*, you will have……………..
3. If you combine the onset *pr* and the rime *ay*, you will have…………..
4. If you combine the onset *b* and the rime *ook*, you will have……………..
5. If you combine the onset *tr* and the rime *ue,* you will have……………..
6. If you combine the onset *s* and the rime *ing*, you will have…………..
7. If you combine the onset *n* and the rime *ear*, you will have……………..
8. If you combine the onset *k* and the rime *iss*, you will have……………..
9. If you combine the onset *d* and the rime *eer*, you will have……………..
10. If you combine the onset *l* and the rime *ion*, you will have……………..

(MBOE1)

▪ **Level 5: Segmenting and Blending Individual Phonemes**
   Phonemic awareness is the ability to identify and manipulate individualsounds(phonemes) in spoken words (Chard and Dickson, 1999).
❖ **Phoneme Segmentation**
   Task 1: Break the following words into phonemes. For example, if I say *cup* you shouldsay /c /, u/, /p /.
1. Week…………………………………………………………………………..
2. For…………………………………………………………………………….
3. Ray……………………………………………………………………………
4. Get……………………………………………………………………………
5. Shop…………………………………………………………………………..
6. Tell……………………………………………………………………………
7. Pen…………………………………………………………………………….
8. Read…………………………………………………………………………..
9. Put……………………………………………………………………………
10. Bed…………………………………………………………………**(MBOE1)**

❖ **Phoneme Blending**
   Task 2: Blend the following phonemes into words. For example, if I say the word slowly,sayit fast. If I say Cccccc *aaaaaa tttttt*, you say *cat.*
1. Dddddddiiiiiceeee……………………………………………………………
2. Ssssssiiiiiixxxxxx…………………………………………………………….

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3. Ppppppeeeeeennnnnn………………………………………………………………..
4. Fffffooooooxxxxxx………………………………………………………………….
5. Yyyyyyaaaaaakkkkkk…………………………………………………………….
6. Cccccooooooockckckckckck……………………………………………………
7. Dddddeeeeeewwwwww……………………………………………………………
8. Pppppppeeeeeettttttt………………………………………………………………….
9. Hhhhhhooooootttttt……………………………………………………………….
10. Bbbbbbaaaaaaddddddd……………………………………………………………

(MBOE1)

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Appendix 6

Pretest and Posttest

Full Name: ………………………………………………………………………

Level: First Year

Gender: Male ☐ **Female** ☐

Age:

How long have you been studying English?

....

➢ **Reading Competence Skills Assessment1- Word Recognition**

Task One: Read the following words out-loud.

	Correct Articulation	Wrong Articulation
1. Come		
2. Stand		
3. Listen		
4. School		
5. Raise		
6. Greet		
7. Participate		
8. Orange		
9. Yellow		
10. Tuesday		
11. Eight		
12. July		
13. Repeat		
14. Glad		
15. Story		
16. City		
17. Carpenter		
18. Wear		
19. Shoes		
20. Painter		

Task Two: The following words are not real words; they are pretend words that mustbesounded out in order to read them.

Correct Articulation　　　　　　**Wrong Articulation**

1. Pam　　　　　　…………………　　………………………

2. Nup　　　　　　…………………　　………………………

3. Rin　　　　　　…………………　　………………………

4. Min　　　　　　…………………　　………………………

5. Dup　　　　　　…………………　　………………………

6. Wam　　　　　　…………………　　………………………

7. Hup　　　　　　…………………　　………………………

8. Fin ………………… ………………………

9. Jin ………………… ………………………

10. Kam ………………… ………………………

11. Lin ………………… ………………………

12. Cam ………………… ………………………

13. Gup ………………… ………………………

14. Yin ………………… ………………………

15. Vam ………………… ………………………

16. Zin ………………… ………………………

17. Rit ………………… ………………………

18. Nep ………………… ………………………

19. Sot ………………… ………………………

20. Tum ………………… ………………………

(Ekwall and Shanker, 1985)

2- Reading Fluency

Task One: Try to read the two following texts correctly and rapidly.

Hi ! Razane,

My name is Adaku. I am 12 years old. I speak English. I am from Nigeria. I like swimming. I like wearing blue jeans and sport shoes. My food is rice and beans. I have gota pet dog called Max. How about you?

Love,

Adaku

(MBOE1, p.60)

Reading Speed	Number of misarticulated items

The New Bicycle

Emma has a new bicycle. It is bright pink and shiny. It was a gift from her uncle. He hid it behind a bush to surprise her. When Emma looked behind the bush and saw the bicycle, she jumped for joy. It was just what she wanted. She gave her uncle a big hug. She loves her new bicycle, and she loves her uncle.

(https://www.k5learning.com/free-preschool-kindergarten-worksheets/reading-comprehension/childrens-story/my-friends).

Reading Speed	Number of misarticulated items

Appendix 7

Pretest and Posttest

Full Name: ……………………………………………………….

Score:……………

Level: First Year

Gender: Male ☐ **Female** ☐

Age:

How long have you been studying English?

....

1- Reading Comprehension

Task One: Read the following passages carefully and choose the correct answer tocompletethe sentences.

Passage One:

Playing with Friends

John went for a bike ride. He rode around the block. Then he met some girls he knewfromschool. They all rode to the field to play. John had a great time playing games with his friends.

(https://www.k5learning.com/worksheets/kindergarten/reading-comprehension-story-playing-with-friends.pdf)

1. John went for a **(a. car / b. bike/ c. truck)** ride.

2. He rode around the **(a. house/b. block /c. circle).**

3. Then he met some **(a. old men/b. boys /c. girls)** he knew from school.

4. They all rode to the **(a. park / b. field/ c. ground)** to play.

5. John had a great time playing **(a. tennis/ b. games / c. ball)** with his friends.

Passage Two:

A Birthday Party

A Birthday Party Lisa went to a birthday party on Saturday. There were many girls there.Theyplayed a lot of great games at the party. Then they had dessert. All of the girls gotballoons asparty favors. Lisa loved her red balloon.

(https://www.k5learning.com/worksheets/kindergarten/reading-comprehension- story-a- birthday-party.pdf).

1. Lisa went to a (**a. slumber** / **b. birthday/ c. dancing**) party on Saturday.
2. There were many (**a. girls / b. boys/ c. women**) there.
3. They played a lot of great (**a. movies / b. games/c. cards**) at the party.
4. Then they had (**a. coffee/b. dessert /c. lunch**).
5. All of the girls got (**a. kites/ b. balls / c. balloons**) as party favors.

Passage Three:

The Classroom

My teacher is Mrs. Brown. We have ten desks for ten students. On the wall is our art work.We have cut out and painted turkeys for Thanksgiving. During recess we play on themonkey bars. In the afternoon, Mrs. Brown reads a story. Then it is time to go home.
(https://www.k5learning.com/worksheets/kindergarten/reading-comprehension- story-the- classroom.pdf).
Questions:

1. What is the teacher's name?
a. Mrs. Smith   b. Mrs. Thomas   c. Mrs. Brown
2. How many students are there?
a. Ten students   b. Twenty students   c. Thirty students
3. What is hanging on the wall?

a. Mona Lisa   b. Our art work   c. A horse painting
   What do they do during recess?
    a. Play tennis   b. Play billiards   c. Play on the monkeybars
4. What does Mrs. Brown do in the afternoon?
a. Has a picnic   b. Reads a story   c. Babysits her children

Task Two: Read the text and answer the statements by "true", "false".

Tom's Day

On Sunday, Tom gets up at 10 o'clock. Then he reads his newspaper in the kitchen. He hasbreakfast at 11.30 and then he telephones his mother in Scotland.
In the afternoon, at 1.00, Tom plays tennis with his sister and after that, they eat dinner ina restaurant. At 6.00, Tom swims for one hour and then he goes by bike to his brother´shouse. They talk and listen to music.
Tom watches television in the evening and drinks a glass of warm milk. He goes to bed at11.30.

1. Tom has his breakfast in the kitchen.   (..............)
2. Tom's mother lives in England   (…...........)
3. Tom plays tennis with his sister at 1p.m.   (..............)
4. Tom swims for two hours.   (.............)
5. Tom goes to his brother's house on foot   (… ....)

Task Three: Read the following passage and fill in the blanks with the most appropriatewords.

Giraffes are the…**1**…living animal in the world. They can…**2**…up to about 5 meters tall.That is about as tall as a double-decker..**3**   !
Giraffes live in….**4**…. Their long….**5**…help them to eat the....**6 ....** in the

tallest part of
the trees. They like the leaves on the acaciatrees…**7**…of all.
Giraffes can run very fast but not for very...**8**… They can sleep standing. **9**…but often
sleep sitting down with their….**10**….tucked under them.

(https://www.twinkl.co.uk/teaching- wiki/cloze-procedure).

1.	**2.**	**3.**	**4.**	**5.**
a. Smallest		a. Makea. Bus	a. America	a. Tails
b. Tallest		b. Takeb. Car	b. Africa	b. Feet
c. Biggest		c. Growc. Bike	c. Australia	c. Necks

6.	**7.**	**8.**	**9.**	**10.**
a. Trees	a. Most	a. Long	a. Down	a. Mouths
b. Leaves	b. A few	b. Short	b. Up	b. Backs
c. Flowers	c. A little	c. High	c. Below	c. Necks

Appendix 8

Pretests and Posttests

Full Name: …………………………………………………………………………

Level: Fourth Year

Gender: Male ☐ **Female** ☐

Age:

How long have you been studying English?

....

➤ **Phonological Awareness Skills Assessment**

▪ **Level 1: Rhyming and Alliteration**

Chard and Dickson (1999) suggest that rhymes are the earliest acquired phonological skill.

Task one: Listen to the following rhyming song (*Twinkle Twinkle Little Star*) and practice signing it. ***Pick up the words that rhyme? Then, pick up the words that have asimilar initial consonant.***

Twinkle twinkle little star **1-**……………….………./**2-**……………………………
How I wonder what you are **1-**…………………....../**2-**………………………….
Up above the world so high.**1-** …………….……….**/2-**……………………………..
Like a diamond in the sky. **1-**………………..…….**/2-**………………………………
Twinkle twinkle little star.**1-** ………………..…….**/2-**….……………………………
How I wonder what you are. **1-** …………….…….**/2-**……………………………..

(https://littlelearningcorner.com/2021/05/25-popular-nursery-rhymes-songs.html)Task Two: Identify, from among three words, the one that rhymes with the target stimulus.

"Which word rhymes with ''**clear**''?" (stimulus word) ("fair, hair, dear)".
(MBOE4)

……………………………………………………………………………………………

▪ **Level 2: Sentence Segmentation**

Sentence segmentation refers to students' awareness that speech can be broken downinto individual words (Chard and Dickson, 1999).

Task One: Listen to the following songs and practice them through breaking each up into its single word constituents. For example, ***He is my friend*** is composed of four words, viz., ***He***, ***is***, ***my***, and ***friend***.

A bear named Sue Song

I have a bear

………………………………………………………………………………………………

And her name is Sue

………………………………………………………………………………………………

She can do anything that I can do

………………………………………………………………………………………………

I can do anything that she can do.

In the morning I stretch and Sue does her
I put on trousers and a shirt and Sue wears a skirt
On with my socks and on with my shoes And on goes the same for dear old Sue
And we're ready for breakfast in the twinkling of an eye
So we go downstairs my Sue and I.
(https://learnenglishkids.britishcouncil.org)

▪ **Level 3: Syllable Segmentation and Blending**

Activities related to segmenting words into syllables and blending syllables intowords are at the center of Chard and Dickson's continuum.

- **Syllable Segmentation**

Task One: Count the syllables in the following words. For example, mouthful: *mouth-ful.*
1. Employer…………………………………………
2. Lovely……………………………………………
3. Horrible……………………………………………
4. Awesome………………………………………….
5. Incredible………………………………………….
6. Fantastic…………………………………………..
7. Accountant…………………………………………
8. Barefoot……………………………………………
9. Unimportant……………………………………………………….
10. Endless ....

<div align="right">

(MBOE4)

</div>

- **Syllable Blending**

Task One: Blend syllables following this example: "I say the word as syllables, youblendthem to make the words. If I say the word *bl-ink* like a robot, you say it fast as*blink*".
1. Plough-
er…………………………………………………………...
2. Quan-ti-fi-er……………………………………………………………….
3. Tram-way…………………………………………………………………
4. Di-a-logue………………………………………………………………..
5. Bi-o-log-i-cal……………………………………………………………….
6. Trou-sers…………………………………………………………………
7. Spray-er………………………………………………………………….
8. Lib-er-at-ed………………………………………………………………
9. Do-na-tion………………………………………………………………...
10. Op-po-nent…………………………………………………………………

<div align="right">

(MBOE4)

</div>

- ▪ **Level 4: Onset-rime, Blending and Segmentation**
  Segmenting and blending onsets and rimes comes next in Richard and Dickson's (1999) continuum. It refers to learners' ability to break words into onsets and rimes;meanwhile, blending rimes and onsets into words.
- **Onset-rime Segmentation**
  Task One: Identify onsets in the following words. For example, which sound is theonsetin *pit*?" "The onset is "*p*".
  1. Fact……………………………………………
  2. Mint…………………………………………....
  3. Tree……………………………………………
  4. Tour……………………………………………
  5. Point……………………………………………
  6. Choice…………………………………………
  7. Pure……………………………………………
  8. Birth……………………………………………
  9. Lock…………………………………………..
  10. Soil…………..(MBOE 4)
  Task Two: Identify rimes in the following words. For example, which sound is therimein *pit*?" "The rime is "*it*".
  1. Voice……………………………………………
  2. Dear…………………………………………..
  3. Height…………………………………………..
  4. Car………………………………………………
  5. Cough……………………………………………
  6. Loft………………………………………………
  7. Poet………………………………………………
  8. Shout……………………………………………
  9. Load…………………………………………..
  10. Sock ....   **(MBOE 4)**
- **Onset-rime Blending**
  Task One: Blend onsets and rimes "e.g. If you combine the onset *f* and the rime *ar*,youwill have *far*".
1. If you combine the onset *t* and the rime *own*, you will have…………..
2. If you combine the onset *sp* and the rime *ain*, you will have…………..
3. If you combine the onset *l* and the rime *ength*, you will have……………..
4. If you combine the onset *wr* and the rime *ite*, you will have……………..
5. If you combine the onset *g* and the rime *ate*, you will have……………..
6. If you combine the onset *sh* and the rime *ift*, you will have……………..
7. If you combine the onset *br* and the rime *ake*, you will have……………..
8. If you combine the onset *pr* and the rime *une*, you will have…………..
9. If you combine the onset *l* and the rime *and*, you will have……………..
10. If you combine the onset *s* and the rime *oak*, you will have……………..

(MBOE4)

- ▪ **Level 5: Segmenting and Blending Individual Phonemes**

    Phonemic awareness is the ability to identify and manipulate individual sounds(phonemes) in spoken words (Chard and Dickson, 1999).

- **Phoneme Segmentation**

    Task 1: Break the following words into phonemes. For example, if I say *cup* youshould say /c /, u/, /p /.
    1. Hit……………………………………
    2. Let………………………………..
    3. Rid………………………………...
    4. Set…………………………………
    5. Tell………………………………..
    6. Win……………………………….
    7. Less……………………………….
    8. Mix……………………………….
    9. Fire………………………………
    10. Bath……………………… **(MBOE4)**

- **Phoneme Blending**

    Task 2: Blend the following phonemes into words. For example, if I say the wordslowly, say it fast. If I say Cccccc *aaaaaa tttttt*, you say *cat*.
    1. Tttttttuuuuuubbbbbb…………………………………………
    2. Fffffffuuuuuuurrrrrr………………………………………...
    3. Nnnnnneeeeeeddddddd……………………………………….
    4. Bbbbbbaaaaaacccccckkkkkkk…………………………………
    5. Fffffffaaaaaaarrrrrr………………………………………….
    6. Bbbbbbaaaaaaddddddd………………………………………
    7. Oooooolllllldddddd………………………………………….
    8. Rrrrrruuuuuusssssssshhhhhh……………………………….
    9. Rrrrrooooooobbbbbb………………………………………..
    10. Ppppppaaaaaasssssssssssss…………………(**MBOE3, MBOE4)**

APPENDICES

Appendix 9

Pretests and Posttests

Full Name:……………………………………………………………………………………

Level: Fourth Year

Gender: Male ☐ **Female** ☐

Age:

How long have you been studying English?

……………………………………………………………

➢ **Reading Competence Skills Assessment1- Word Recognition**

Task One: Read the following words out-loud.

	Correct Articulation	**Wrong Articulation**
1. Article		
2. Blog		
3. Wrap		
4. Oppress		
5. Avoid		
6. Influence		
7. Terrible		
8. Marvelous		
9. Architect		
10. Pure		
11. Brake		
12. Shout		
13. Museum		
14. Dumb		
15. Wreck		
16. Chalk		
17. Drown		
18. Delicious		
19. Culture		
20. Cuisine		

Task Two: The following words are not real words; they are pretend words that must besounded out in order to read them.

	Correct Articulation	**Wrong Articulation**
1. Mox	………………..	………………….
2. Quam	………………..	………………….
3. Plup	………………..	………………….
4. Frin	………………..	………………….
5. Flam	………………..	………………….
6. Stup	………………..	………………….
7. Blin	………………..	………………….
8. Trin	………………..	………………….

9. Grup …………………….. ……………………

10. Brin …………………….. ……………………

11. Shup …………………….. ……………………

12. Thup …………………….. ……………………

13. Whup …………………….. ……………………

14. Doot …………………….. ……………………

15. Meap …………………….. ……………………

16. Dait …………………….. ……………………

17. Poed …………………….. ……………………

18. Feem …………………….. ……………………

19. Bowd …………………….. ……………………

20. Fow …………………….. ……………………

(Ekwall and Shanker, 1985)

2- Reading Fluency

Task One: Try to read the two following texts correctly and rapidly.

Marty the Clownfish

Marty was sad in the sea. As a clownfish, he felt like he should be funny. As a clownfish, he was not funny. He was not funny at all. He was very serious and did not make anyone laugh. He told jokes to the lionfish, but they did not laugh. He toldjokes tothe dogfish, but they did not laugh either. "I am a clownfish, and I should befunny," Marty said aloud.

"You don't have to be funny," said a shark from nearby. "You are kind and helpful. You are friendly and smart." "But clowns make people laugh, so a clownfishshould make fish laugh," said Marty. "The lionfish do not act like lions. The dogfishdo not act like dogs," the shark told him. "Marty, just be yourself." So, Marty did justthat. He stopped trying to tell jokes. Soon, the fish all liked him. Soon, he had a lot of fish friends. One day, Marty said, "I am going to tell you all a joke." "Marty, no! No more jokes!" Martysaid, "Just kidding!"
(https://www.k5learning.com/free-preschool-kindergarten-worksheets/reading-comprehension/childrens-story/my-friends).

Reading Speed	Number of misarticulated items

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Sun, Stars and Moon

In the sky, you can see the sun, stars, and the moon. The sun is up during the day. It is very hot. The sun gives us light and heat. Plants need the sun to grow. We can see the stars at night. They give off light and heat, like the sun. That is because the sun is a star, too! There are more stars than we can count. Some people see shapes in the stars. A group of stars that make a shape is called a constellation. Have you ever seen the Big Dipper? That is a constellation! The moon is out at night. Sometimes we can still see it during the day! It does not give off light and heat.

(**https://www.k5learning.com/free-preschool-kindergarten-worksheets/reading- comprehension/childrens-story/my-friends).**

Reading Speed	Number of misarticulated items

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Appendix 10

Pretests and Posttests

Full Name: …………………………………………………Score:……………
Level: Fourth Year
Gender: Male ☐ **Female** ☐
Age:……………
How long have you been studying English?
....

1- Reading Comprehension

Task One: Read the following passages carefully and choose the correct answer tocompletethe sentences.

Passage One:
The Puppy and the Kitten

My family just adopted a puppy and a kitten from the animal shelter. They were so young, they did not even have names yet. We had to think of good names for them. The puppy likes to jump up. The kitten likes to curl up in our laps. "What do you want to name them?" asked Mom. My sister said, "Pounce for the puppy and Cuddles for the kitten." We all thought those names were perfect. (https://www.k5learning.com/worksheets/reading- comprehension/grade-1-story-puppy-kitten.pdf).

Questions:
1. What animals did they adopt?
   a. Cats   b. A puppy and a kitten dogs   c. Dogs
2. From where did the family get these animals?
   a. The animal shelter   b. Aunty's house   c. The street
3. What does the kitten like to do?
   a. To curl   b. To jump   c. To meow
4. What is the puppy's name going to be?
   a. Cuddles   b. Pounce   c. Bean
5. Who thought the names were perfect?
   a. Mom   b. Daddy   c. All

Passage Two:

A Visit to the Water Park

There is a new water park in town. We go there on the first day of summer. It has pools and water slides. There are sprinklers too. The slides are scary at first. After the first ride,we love the water slides. The sprinklers are cool on hot days. One of the pools makes itsown waves. All the kids try to surf the waves. It is really fun. The water park can be verycrowded. There are many kids and adults, but they do not allow pets. We really like the ice cream at the snack bar. They also sell pop and donuts. We all love the new water park.

(https://www.k5learning.com/worksheets/reading-comprehension/grade-1-story-water- park.pdf).

Questions:

1. What is new in town?
a. Theater b. Stadium   c. Park
2. When did we go to that new place?
a. The first day of summer   b. The first day of winter   c. The first day of spring
3. What is scary at first?
a. Pools b. Slides   c. Sprinklers
4. What is cool on a hot day?
a. Slides   b. Waves   c. Sprinklers
5. What do they love at the snack bar?
a. Ice cream   b. Waves   c. Sprinklers

Passage Three:

My Friends

My Friends I have some very good friends. I ride the bus with my friends Tony and Brian.They live on my street. At school, Tony, Brian and I play with Lisa and Emma on theplayground. We all eat lunch together too. I also have friends from my soccer team namedHunter and Jake. Sometimes I get to see my cousins Abby and Kevin. They are my friendstoo. I like all of my friends.
(https://www.k5learning.com/worksheets/kindergarten/reading-comprehension- story- my-friends.pdf).

Questions:
1. Which friends ride the bus?
   a. Tony and Brian   b. Jack and Tom   c. John and Elizabeth
2. Which friends play soccer?
   a. Judith and John   b. Abby and Kevin   c. Hunter and Jake
3. Who plays with Tony and Brian on the playground?
   a. Robert and Thomas   b. Lisa and Emma   c. Bill and Joseph

   4. Who are the cousins?

   a. Kate and Virginia   b. Edward and Paul   c. Abby and Kevin

5. Who eats lunch together?
a. Make, Jean, and Leonardo   b. Tony, Brian, Lisa and Emma c. Hunter and Jake

Task Two: Read the text and answer the statements by "true", "false".
   Michael works in a restaurant in the center of Madrid, Spain. He goes to work at 5pm, but yesterday at 5pm, he wasn't on the bus, he was in a taxi going to the

hospital. He was very sick! Usually, he works in the kitchen all evening, but yesterday he wasn't in the kitchen. He was in the X-ray department of the hospital because the doctors were worriedabout his stomach pains.

Normally, at 11pm, Michael takes a bus to go home after finishing at the restaurant, but yesterday at 11pm, he was still in the hospital and he was still unhappy and sick. He was in a bed and he was very hot - 102 degrees! Was he worried ? Yes, he was!

In the morning, he was better and the doctors were pleased. What was the problem? Itwas bad food - from his restaurant!
(https://www.esl-lounge.com/student/reading/1r22-elementary-reading-michael-and- his- stomach-true-false-questions. php).

1. Michael was in the restaurant yesterday afternoon.   (….........)
2. He goes to work in the restaurant by bus.   (… ....)
3. Yesterday, he was in a bus going to the hospital.   (… ....)
4. He was in the hospital because of his head.   (… ....)
5. He was in the X-ray department of the hospital.   (…..........)

Task Three: Read the following passage and fill in the blanks with the most appropriate words.

One of the most interesting new books published recently is "Spaceship" by Prof. E. C. Walker. Our earth he says……….like a spaceship, and all the 400 million people…………….earth are passengers on it. And we are heading …………….a disaster. The levels of atmospheric pollution……….in the cities and Industrial areas of the world could in time   change   the   weather patterns   of   the   earth,   raising   the temperature ………….the   whole planet. If   this rose   a few………..the deserts of the world would expand to double their size. The polar ice caps would start melting. If the polar ice caps melted, the   level all over the world would rise……………….about 60 meters. Prof. Walker's…   is not at all about gloom and doom. He admits that the…………….he describes could take thousands of years.
(https://www.leadthecompetition.in/english/grammar/cloze-test-1.html)
1.
a. is
b. have been
c. will be
2.
a. over
b. on
c. upon
3.
a. about
b. to
c. towards

4.
a. increasing
b. arriving
c. coming

5.
a. in
b. of
c. for

6.
a. degrees
b. steps
c. miles

7.
a. water
b. ice
c. sea

8.
a. in
b. by
c. to

9.
a. idea
b. thought
c. book

10.
a. ideas
b. solutions
c. changes

ملخص

ملخص

يعد الوعي الصوتي أحد أهم المهارات ما وراء المعرفية اللازمة لتطوير القراءة والكتابة. وقد أكدت مجموعة كبيرة من الأبحاث على أهمية الوعي الصوتي في تطوير كفاءة القراءة. ومع ذلك، يبدو أن تدريس الوعي الصوتي نادرًا ما يؤخذ بعين الاعتبار عند تدريس القراءة في فصول اللغة الإنجليزية في المدارس المتوسطة الجزائرية. كان الغرض من هذه الدراسة هو دراسة تأثير تعليم الوعي الصوتي على كفاءة القراءة لدى متعلمي اللغة الإنجليزية كلغة أجنبية في الصفين الأول والرابع في الطور المتوسط بالجزائر. ولإعداد هذا البحث، أجريت دراسة تسلسلية مختلطة المنهج بمتوسطة الطيب بولحروف، القبة، الجزائر العاصمة. تمثّلت عينة هذا الاستطلاع في80 تلميذا يدرسون اللغة الإنجليزية كلغة أجنبية، و5 مدرسين للغة الإنجليزية، و15 مفتشًا للغة الإنجليزية كلغة أجنبية. تم إجراء الاختبار القبلي والاختبار البعدي لقياس مدى فاعلية تدريب الوعي الصوتي على كفاءة القراءة لدى المجموعة التجريبية. تم جمع البيانات عن طريق تحليل وثائق الكتب المدرسية للغة الإنجليزية، واستبيانين موجهين إلى كل من التلاميذ والمعلمين، ومقابلة موجهة إلى المفتشين. وأظهرت البيانات أن مهام تقييم الوعي الصوتي تكاد تكون غائبة في الكتب الدراسية الأربعة باستثناء ما يتعلق بعزل الصوت، والتصنيف، والتعرف. تم تهميش المستويات الأخرى مثل الوعي بالمقطع. كما توصلت الدراسة إلى أن معرفة معظم المعلمين والمفتشين محدودة فيما يتعلق بمعنى الوعي الصوتي، وعلاقته باكتساب القراءة، وطرق بناءه داخل الأقسام. ومع ذلك، أظهرت النتائج التي تم الحصول عليها من الاختبار القبلي والبعدي أن الوعي الصوتي يرتبط بشكل كبير مع طلاقة القراءة والفهم. ومن الواضح أن تعليم الوعي الصوتي أدى إلى نمو ذي دلالة إحصائية في كفاءة القراءة لكلا المستويين الدراسيين. وبالتالي فإن الدراسة تدعم الأبحاث السابقة، وتشير ضمنًا إلى أن الوعي الصوتي مفيد جدًا لتحسين كفاءة القراءة على عكس فكرة المنهج المستخدم في المدارس الجزائرية الذي يرمي إلى فهم الكلمات ويهمش الوعي الصوتي. بالإضافة إلى ذلك، أفضت النتائج إلى أن تدخل الوعي الصوتي الصريح يمكن أن يساعد في تعزيز كفاءة القراءة لدى متعلمي اللغة الإنجليزية كلغة أجنبية في الجزائر بمجرد دمجها بشكل منهجي في مناهجهم المدرسية. تعتبر هذه الدراسة مهمة لأنها تمهد الطريق لدراسات مستقبلية لدراسة التأثيرات المحتملة للوعي الصوتي على كفاءة القراءة لدى طلاب المدارس الثانوية والجامعات. بالإضافة إلى ذلك، فإن البحث الحالي يضع أسسًا لمزيد من الأبحاث التي قد تبحث في العلاقة بين الوعي الصوتي واضطرابات القراءة مثل تعذر القراءة، وعسر القراءة، وفرط القراءة. والأهم من ذلك، يمكن أن تستكشف الدراسات الاستقصائية المستقبلية كيف يمكن لمفتشي ومدرسي اللغة الإنجليزية كلغة أجنبية تعزيز تدريس كفاءة القراءة من خلال تصميم دورات فعالة تتضمن مهارات الوعي الصوتي.

الكلمات المفتاحية: الوعي الصوتي؛ كفاءة القراءة؛ المدرسة المتوسطة؛ الكتب المدرسية الجزائرية للغة الإنجليزية كلغة أجنبية. متعلمي اللغة الإنجليزية كلغة أجنبية.