



PEOPLE'S DEMOCRATIC REPUBLIC OF ALGERIA
MINISTRY OF HIGHER EDUCATION AND SCIENTIFIC RESEARCH

UNIVERSITY OF CHADLI BENDJEDID EL-TARF
FACULTY OF LETTERS AND LANGUAGES
DEPARTMENT OF ENGLISH

The Effect of Linguistic Intelligence, and Vocabulary knowledge
on Pupils' Reading Comprehension

**The Case of Second-year Pupils at Abderahman Bensalem
Secondary School Bouhadjar**

Dissertation Submitted to the Department of English in Partial Fulfilment of the
Requirements for a Master Degree in TEFL

Prepared by:

Mrs. Lamia KAMEL

Supervisor by:

Ms. Selma NADJI

Board of Examiners

President: Dr. Zouleykha BELLABES	MCA	University of Chadli Bendjedid-Tarf
Supervisor: Ms. Selma NADJI	MAA	University of Chadli Bendjedid-Tarf
Examiner: Mrs. Naima LADACI	MAA	University of Chadli Bendjedid-Tarf

Academic Year
2020/2021

Declaration

I hereby declare and sign below that the present master dissertation in *Didactique de L'Anglais* is the result of my personal efforts. Any other work included here is being reproduced, and cited according to the requirements of the research.

Student's name: Mrs Lamia Kamel

Signed:

Date:21/09/2021

Student's number:

Dedication

This dissertation is dedicated to:

My husband Youcef for his help and patience

My beloved parents for their love and care

The candle of my life my children Bilel and Hadil.

My siblings and their children for their moral support.

Mrs Imene Nouri who proof read my dissertation.

Acknowledgements

This work would not have been possible without the guidance, the advice and the comments of my esteemed supervisor Ms. Selma NADJI. I am deeply thankful to her.

I would like to thank all the lecturers for their assistance and replying to all my questions.

I would like to extend my special thanks to the board of examiners for willing to evaluate my work and provide helpful comments and remarks.

Thanks are due to second year pupils' scientific stream at Abderahman Bensalem Ssecondary School for their contribution to the fulfilment of this project.

Abstract

The present study is primarily conducted to explore the effect of linguistic intelligence and vocabulary knowledge on pupils' reading comprehension. The investigation was carried out at Abderahman Bensalem Secondary School in Bouhadjar. In order to confirm or reject the formulated hypotheses, the researcher relied on the descriptive method. Thus, two main data gathering tools were used, the classroom observation, and the pupils' questionnaire. Accordingly, the classroom observation covered three sessions during which the pupils were provided with a number of reading comprehension tasks based on vocabulary. The tasks are taken from the students' textbook, and they include activities such as labelling pictures, matching, and multiple-choice questions, while the questionnaire about linguistic intelligence was administered to 21 secondary school pupils. The results obtained from the classroom observation showed that pupils with a wide range of vocabulary solved the tasks easily. Likewise, the findings obtained from the pupils' questionnaire revealed that some pupils enjoyed a high level of verbal linguistic intelligence, and this was reflected in their answers. Hence, it can be concluded that vocabulary knowledge, and linguistic intelligence can affect pupils' reading comprehension. On the basis of the findings, some recommendations were provided to pupils, teachers, and all stakeholders in order to take the best advantages from teaching pupils how to develop their vocabulary, and linguistic intelligence, and make the best of both for effective academic achievements seeking any possibility for implementing Multiple Intelligence theory in Algerian schools.

Key words: *Linguistic intelligence; Vocabulary knowledge; Reading comprehension*

المخلص

أجريت هذه الدراسة أساسا لاكتشاف تأثير الذكاء اللغوي ومعرفة المفردات على فهم القراءة لدى تلاميذ السنة الثانية ثانوي بثانوية المقدم عبد الرحمن بن سالم بوحجار خلال العام الدراسي 2021/2020. من أجل تأكيد الو رفض الفرضيات المصاغة، اعتمد الباحث على المنهج الوصفي وبالتالي تم اعتماد أداتين رئيسيتين لجمع البيانات، وهما الملاحظة الصفية واستبيان التلاميذ. وبناءا على ذلك غطت الملاحظة الصفية ثلاث جلسات تم خلالها تزويد التلاميذ بعدد من تمارين القراءة مبنية على المفردات، بينما تم توجيه الاستبيان إلى 21 تلميذ. أظهرت النتائج التي تم الحصول عليها من الملاحظة الصفية أن التلاميذ الذين لديهم مجموعة واسعة من المفردات نجحوا في حل التمارين بسهولة، وبالمثل كشفت النتائج المحصل عليها من الاستبيان أن بعض التلاميذ يتمتعون بذكاء لغوي، وهذا ما انعكس في إجاباتهم ومن ثم يمكن الاستنتاج بأن الذكاء اللغوي ومعرفة المفردات يمكن أن تؤثر على فهم القراءة لدى التلاميذ. وبناءا على هذه النتائج تم تقديم بعض التوصيات للتلاميذ والمعلمين وجميع أصحاب المصلحة من أجل الاستفادة بشكل أفضل من تعليم التلاميذ كيفية تطوير مفرداتهم وذكائهم اللغوي، وتحقيق أقصى الاستفادة من كيهما للوصول لإنجازات أكاديمية فعالة والنظر في إمكانية تطبيق نظرية (MI) أي الذكاءات المتعددة في المدرسة الجزائرية.

الكلمات المفتاحية: الذكاء اللغوي، معرفة المفردات فهم القراءة.

Table of Contents

Declaration.....	i
Dedication.....	ii
Acknowledgments.....	iii
Abstract.....	iv
Abstract in Arabic.....	v
Table of Contents.....	vi
List of Abbreviations and Acronyms.....	ix
List of Table.....	x
List of Figures.....	xi

Chapter one: Introductory Chapter

Background information.....	1
1. Statement of the Problem.....	1
2. Aim of the Study.....	2
3. Research Questions.....	2
4. Research Hypotheses.....	2
5. Research Method.....	5
6. Research Structure.....	3
7. Research Limitations.....	4
Conclusion.....	4

Chapter two: Literature Review

Introduction.....	5
2.1 Definition of Reading.....	5
2.1.1 Aspects of Reading.....	6
2.2 Definition of Linguistic Intelligence.....	6
2.2.1 Aspects of Linguistic Intelligence.....	7

2.3 Definition of Vocabulary.....	7
2.3.1 Types of Vocabulary.....	8
2.4 Previous Related Research Findings.....	8
Conclusion.....	11

Chapter three: Method

Introduction.....	12
3.1 Research Institution.....	12
3.2 Research Design.....	12
3.2.1 Participants.....	12
3.2.2 Research Instruments.....	13
3.3 Classroom Observation.....	13
3.3.1 Definition of Observation.....	13
3.3.2 Description of Classroom Observation.....	13
3.4 Students' Questionnaire.....	14
3.4. 1 Definition of Questionnaire.....	14
3.4.2 Description of Students' Questionnaire.....	14
Conclusion.....	15

Chapter four: Results

Introduction.....	16
4.1 Analysis of Classroom Observation.....	17
4.2 Analysis of Students' Questionnaire.....	18
Conclusion.....	26

Chapter five: Discussion and Recommendations

Introduction.....	27
5.1 Discussion of the findings.....	27
5.2 Pedagogical Implications.....	30

5.3 Recommendations.....	30
5.3.1 Recommendations for teachers	30
5.3.2 Recommendations for students.....	31
5.3.3 Recommendations for textbook writers, and policy makers.....	31
Conclusion.....	32
References.....	33
Appendices	

List of Abbreviations and Acronyms

EFL: English as a foreign language.

ESL: English as a second language.

MI: Multiple Intelligences.

List of Tables

Table1: pupils' reaction towards vocabulary activities.	17
--	----

List of Figures

Figure1: Pupils' First Time Learning English.	18
Figure2: The Documents Which Pupils Read	19
Figure3: Pupils' Difficulties in Understanding	20
Figure 4: Pupils' Strategies in Reading Comprehension	20
Figure5: The Time Pupils Spend on Reading	21
Figure 6: Pupils' Fluency	22
Figure7: Pupils' Ability to Memorise and Summarise	22
Figure8: The Reasons Behind Pupils' Love for Retelling Stories	23
Figure9: The Type of Language Pupils Use	23
Figure10: Pupils' Reaction to Word Gaming	24
Figure 11: Pupils' Strategies to Get the Meaning of Words in a Reading Text	24
Figure12: Pupils' Strategies to Remember What They Read.	25
Figure 13: Pupils' Strategies to Explain what They Read	26

Chapter One

Introductory Chapter

Background Information

The rise of interest in English as a language spring from the fact that it is the language which made globalization more possible and effective. More and more, people start learning English for different reasons; academic or professional using spoken or written language. Sometimes, reading is also needed. Among the English skills, reading is the activity people prefer doing in their free time. However, in some situations they need to read for specific purposes, take the case of pupils during tests. It is evident that reading for such purposes involves comprehension. The latter can be affected by many factors among which linguistic intelligence; which is one of Gardner's eight channels of intelligences that involves the ability to learn new languages, and the effective use of the spoken or the written language.

1. Statement of the Problem

Various studies have been conducted about reading and linguistic intelligence; seeking any correlation between these two variables. These studies the relationship between multiple intelligence, and reading comprehension by Hashemi (2008) or the impact of linguistic intelligence, and emotional intelligence on reading comprehension ability by Rahimi, and Sadeghi (2011) have consistently found that linguistic intelligence has the greatest influence on reading comprehension. Despite this, other factors such as vocabulary knowledge have to be deeply researched. Although a lot of research investigated the correlation between, linguistic intelligence, and reading proficiency (Hamoudi in 2010), linguistic intelligence, and academic achievement (Vincy, and Pughalenti in 2016) or linguistic intelligence, and

language achievement (Hemmati, and Sadeghi in2015), linguistic intelligence, and reading habit

(Susanta in 2020), very little was done about linguistic intelligence, vocabulary knowledge, and reading comprehension. Ratna, S., D. (2019) is among the fewest who investigated the correlation between the three variables. However, this paper suggests a descriptive study on the effects of both linguistic intelligence, and vocabulary knowledge on reading comprehension among high school students.

Based on my own feedback as a high school teacher; English as a Foreign Language (EFL) pupils like to read texts during the reading session. Most of them are fluent readers due the fact that today's screen shot generation enjoys more exposure to the language through the different Mass Media .Yet, reading does not just mean correct pronunciation of words, it involves comprehension and word knowledge, and this seems problematic to EFL pupils who struggle to understand what they read by exploiting their linguistic intelligence, and vocabulary knowledge.

2. Aim of the study

This study aims at exploring whether linguistic intelligence and vocabulary knowledge can affect pupils' reading comprehension at Abderahman Bensalem Secondary School. It also sheds the light on the possibility of implementing Multiple Intelligence (MI) theory as an approach in the teaching learning process as this can lead pupils to better academic achievements, especially in final tests.

3. Research Questions

The present study raises the following questions:

Question 01: Can linguistic intelligence affect pupils' reading comprehension?

Questions02: Can vocabulary knowledge affect pupils' reading comprehension?

4. Research Hypotheses

Owing to the fact that linguistic intelligence and vocabulary knowledge can influence pupils' comprehension, the following hypotheses are formulated.

Hypothesis 01

Linguistic intelligence can affect pupils' reading comprehension.

Hypothesis 02

Vocabulary knowledge can affect pupils' reading comprehension.

5. Research Method

Considering the above-mentioned objective, this study is carried out as an exploratory case study dealing with second year pupils at Abderahman Bensalem secondary school. The researcher opted for the classroom observation and the questionnaire as data gathering tools in this study. Thus, we started by observing the behaviours exhibited by the respondents and their reactions when dealing with vocabulary activities which are put in context to check the ability of the learners in using the words. Furthermore, a questionnaire composed of 15 questions is designed and submitted to a group of 21 participants (male and female) during the academic years 2020/2021. Finally, the gathered data are analysed in a quantitative and a qualitative way.

6. Research Structure

This dissertation is composed of five major chapters. The first chapter is devoted to the introductory chapter of the research, and it consists of the background information, the statement of the problem, aim, questions, hypotheses of the research, the structure of the dissertation, and the limitations. The second chapter turns around the literature review, and it

contains the definitions of the key concepts, aspects, and types in addition to the previous studies related to the topic under study. The third chapter deals with the research method adopted in the study, and provides a full description of the research institution, and the research design including the participants, and the instruments. The fourth chapter is the section in which the gathered data is analysed, and interpreted. The fifth chapter turns around the discussion of the findings trying to answer the research questions by validating or rejecting the hypotheses. Further, it presents pedagogical implications, and recommendations to pupils, teachers, and text book writers which can be useful for them in the future.

7. Research Limitations

Based on the decision issued by the General Inspectorate of National Education regarding the adjustment of the mechanisms for implementing exceptional annual gradations for secondary education in all subjects during the 2020/2021 school year, and in line with the amendments made to the organization of schooling for the month of Ramadan, where the number of sessions was adapted as well as gradation from April 11th to the end of the year. On this basis, the English language programme for the second year was reduced by deleting the last unit entitled” **No Man is an Island**” from the annual programme. Thus, the researcher was unable to complete the classroom observation that was planned at an average of four sessions, and we were satisfied with only three sessions.

Conclusion

This chapter sought to provide an overview of the research in question by stating the aim of the research, the research questions, hypotheses, methodology, structure, and limitations that is to say, this chapter placed the research in its theoretical framework.

Chapter Two

Literature Review

Introduction

This chapter provides definitions, aspects, and types of key concepts, an overview of previous research, and acknowledgements to those who have already investigated in it.

2.1 Definition of Reading

«Reading is one of the four necessary important language skills for those learning English as a second or foreign language (ESL / EFL), for academic success, and for professional developmen» (Dorkchandra, 2010, p.1). According to Komiyama (2009), «reading is an important skill for English language learners in today’s world; it supports the development of overall proficiency and provides access to crucial information at work or in school» (p.32). In addition, Lines (2006 cited in Susanta, 2020) defines reading as a set of skills that involve making sense and deriving meaning from the printed word. Moreover, Asghari (2012, cited in Ratna, 2019) states that reading comprehension plays an important role in learning English as a foreign language. Reading is how people discover new things; therefore, it is considered as an important skill needed for both academic purposes and life time learning. Alongside this idea, Behjat Yamini and Bagheri (2012) further states that «the main concept in reading skill is comprehension. It is highly valued by pupils and teachers alike since it enhances the process of language acquisition and helps pupils to read for different purposes» (p.99). In this respect, reading does not just mean identifying words and spell them correctly; it also involves understanding and comprehension for different purposes

and in different contexts. However, still many pupils encounter difficulties in comprehending English texts. Among the many factors contributing to reading comprehension is the factor of multiple intelligence (MI) that comes from each individual, mentioned Wulan (2010, cited in Ratna, 2019, p.2).

2.1.1 Aspects of Reading

According to Nuttal (1982, cited in Hidayati 2018), there are five aspects of reading so that a student can comprehend a text well. These are determining main idea which can be at the beginning, in the middle or at the end, and this makes it difficult for learners to understand the passage. Locating references is the second aspect, and here learners are supposed to know about the words, and what they refer to, otherwise they may misunderstand the passage. The third aspect is understanding vocabulary by predicting the meaning from the context though sometimes prediction does not help. The fourth aspect of reading comprehension is making inference and here students have to combine their background knowledge, and the text in order to reach comprehension. The last aspect is detailed information, and here the students are supposed to provide direct information from the text. If the learner works on these aspects, he or she will develop comprehension.

2.2 Definition of linguistic intelligence

Armstrong (2003 cited in Azhiri p.1014) prioritized multiple Intelligence theory and paved the path towards efficient reading comprehension. This implies that reading can be approached beyond general intelligence; through the eight gates of intelligences. In addition, Armstrong (2009) mentioned that “Gardner provided a means of mapping the broad range of

abilities that humans possess by grouping their capabilities into the following eight comprehensive categories or intelligences (linguistic, logical/mathematic, spatial, bodily – kinesthetic, musical, interpersonal, intrapersonal, naturalistic») (p.6). Relatively, Armstrong (2003) argues that linguistic intelligence is the most important among the other intelligences since recorded time began. He further defines it as the capacity to use words effectively whether orally or in writing. Besides Armstrong (2003) went deeper to state that linguistic intelligence has been assumed to be the most important domain of intelligence contributing to reading comprehension performance because it deals with the ability to manipulate different components of language including syntax, phonology, and the semantics or meaning of language (as cited in Rahimi Sadighi, & Hosseiny Fard, 2011, p.157).

2.2.1 Aspects of linguistic intelligence

According to Erlina et.al (2020), there are four aspects of linguistic intelligence. The first one is referred to as rhetoric, and this means, the effective, and the fluent use of language to persuade others, in other words, the power of convincing; Besides, the other aspect is Mnemonic that is the ability to remember information easily either written or spoken. In addition, Explanation is another aspect of linguistic intelligence which implies the ability to use language to send information or to express one's thoughts. Finally, the last aspect is meta-linguistic that is the use of language to ask questions about grammar or meaning of words.

From the above definitions, we can say that linguistic intelligence is the excellent use, and the understanding of written or spoken language, and the person who enjoys these characteristics is said to be linguistically intelligent.

2.3 Definition of vocabulary

Alongside with linguistic intelligence and reading comprehension, vocabulary knowledge is another researchable factor in this research. Vocabulary is the knowledge of words and word meaning. As Steven Stahl (2005) puts it, «vocabulary knowledge is

Knowledge; the knowledge of a word not only implies a definition, but also implies how that word fits into the world» (p.95). Besides, read (2004) states that second language learners are aware of their limitations in vocabulary knowledge, and this reduces their ability to comprehend and perform reading tasks successfully. Moreover, Bromley (2004 cited in Ratna, 2019) argues that if someone has vocabulary knowledge well, she or he will be able to promote fluency, boost comprehension, improve achievement, and enhance thinking and communication. Indeed, vocabulary shortage can hinder students' reading comprehension. Thus, it can be assumed that students with low vocabulary will face difficulties in comprehending English texts effectively.

2.3.1 Types of vocabulary

According to Nation (2001as cited in Ratna 2019), there are two main types of vocabulary which are related to language skills. They are receptive, and productive or passive and active vocabulary. Receptive or passive vocabulary is the vocabulary that we, as native speakers or second language learners (ESL) know and understand, but rarely use, it is used in learning. Whereas productive or active vocabulary is the vocabulary we use in production that is in speaking or writing. From the above definition we can say that though the vocabulary used in listening and reading is referred to as passive or receptive, it is the most used type in classrooms since most students can hardly speak or write as they always encounter difficulties in oral or written production.

2.4 Previous Related Research Findings

Related to this study, there are some previous studies which are similar or on line with the present study. To start with, research was conducted by Hashemi (2008), the researcher's aim was to investigate whether or not there is any relationship between multiple intelligence and reading comprehension. The participants of the study were 122 Iranian undergraduate EFL students chosen from Islamic Azad University. The researcher opted for IELTS test to

test the reading ability and the McKenzie's questionnaire to determine the intelligence profile of students. These were the instruments of the research. The results of this correlational study showed that linguistic intelligence and kinesthetic intelligence made the greatest contribution toward predicting reading ability scores.

Secondly, another study was carried out by Abdelhak Hamoudi (2010) to find out whether there is an existing relationship between linguistic intelligence and reading proficiency. To meet the aim of the study, the researcher used McKenzie's (1999) multiple intelligence inventory to detect the students who possess high level of linguistic intelligence. The sample chosen for the study was one hundred pupils at Malika Gaid Secondary School, Setif. The results revealed that there is an implicit relationship between English language learning and linguistic intelligence. The results also showed that the pupils who scored well in English examinations enjoy a strong linguistic intelligence.

Thirdly, in the same respect, Rahimi and Sadighi (2011) investigated the impact of linguistic intelligence and emotional intelligence on the reading comprehension ability, The sample of the study was 135 Iranian EFL learners. The data was gathered through two questionnaires and a reading test. The results showed that students who have a high level of linguistic intelligence enjoy better reading skills than those with low level of linguistic intelligence. However, it was found out that there is no clear-cut difference among students with different degrees of emotional intelligence.

Fourthly, and alongside this study, Hemmati, F. and Sadeghi, N, (2015) investigated research to find out the relationship between language learners multiple intelligence abilities and their foreign language achievement. To achieve the aim mentioned earlier, 112 EFL learners were selected as a sample of the study. As for the data, it was collected through the following measuring instrument: 1) the Persian version of McKenzie Multiple intelligence

(MI) Inventory, and the participants' final term scores as the measure of their language learning achievement. The results showed that higher achieving EFL learners have a higher verbal intelligence; in other words, more proficient EFL learners may be more intelligent verbally than less proficient ones.

Fifthly, Vincy, D. And Pugalenth, N. (2016) conducted research with the aim to explore the extent to which the linguistic intelligence and Academic Achievement of the students at Standard IXth level. The method used in the research was the survey, 200 students (100 boys and 100 girls) were chosen as a sample through random sampling technique. The results revealed that (i) there is no significant difference between boys and girls IXth standard level school student's linguistic intelligence. (ii) There is no significant difference between boys and girls IX the standard level school academic achievement.

Sixthly, qualitative research was carried out by Dian Erlina et.al (2019) to explore and describe the linguistic intelligence of undergraduate EFL learners of one state Islamic University in Palembang, Indonesia. The data was collected through observation, survey and interview. The participants of the study involved undergraduate EFL learners. The results showed that only a small number used the language effectively (rhetoric), very few remembered the written and the spoken language easily (mnemonic), another small group was able to deliver information orally and written (explanation) and few others could use the language to talk about language itself (meta linguistic).

Seventhly, another correlational research was conducted by Sitti Ratna Dewi (2019) to investigate students' reading comprehension based on linguistic intelligence and vocabulary Knowledge. Eleventh grade students of Islamic senior high school of Madrasah Pembangunan (Jakarta) were selected as a sample of the study during the academic year 2019/2020. The method used is correlational survey with regression technique. The instrument used for data

collection is test. The results revealed that: (1) Linguistic intelligence has a positive effect on students' reading comprehension, (2) Vocabulary knowledge has a positive effect on students' reading comprehension, (3) Both linguistic intelligence and vocabulary knowledge positively support students' reading comprehension.

Finally, in 2020, Susanta Mulyana conducted research to find out whether or not there was a significant correlation between reading habit and linguistic intelligence among 72 students as a sample by using impact sampling technique. In analysing the data, it was found that there was a significant correlation between reading habit and linguistic intelligence.

Conclusion

The findings from this review reveal a lack of significant literature on the specifics of the topic of investigation for this research. Indeed, if we consider the results of the previous research on reading comprehension, we notice that they are related to linguistic intelligence and very few include vocabulary knowledge although it is an important predictor that can influence reading comprehension. For this reason, the primary direction for this thesis is to explore and investigate not only the effect of linguistic intelligence but also that of vocabulary knowledge in reading comprehension.

Chapter Three

Method

Introduction

This chapter covers the research institution, the research design that is, the sample population, and the research instruments as well as the limitation of the research.

3.1 Research Institution

The study was carried out at Abderahman Bensalem Secondary School. It is among the oldest schools in Bouhadjar which is one of the communes of the district of El-Tarf situated in the extreme East of Algeria. This school consists of three educational levels and different streams; scientific, literary, economics, and technical mathematics.

3.2. Research Design

The study is descriptive research; it is investigated as a case study. It is composed of three main variables; one independent variable which is reading comprehension and two dependent variables which are pupils linguistic intelligence and pupils vocabulary knowledge. The mixed method was adopted by the researcher in analysing the obtained data.

3.2.1 Participants

The participants of this study are second year scientific stream pupils during the academic year 2020/2021. The participants have been studying English for four years in the middle school and one year in the secondary school. The sample was selected randomly, and it consists of 21 EFL pupils (male and female) aged between 16 and 17 among the total number of the population which is 76 students.

3.2.2 Research Instruments

This research aims to investigate whether linguistic intelligence and vocabulary knowledge can affect pupils reading comprehension or not; it also seeks to provide an insight of these variables for both teachers and students as they are important factors which can contribute to boosting pupils reading comprehension. Hence, we opted for classroom observation, and a questionnaire as data gathering tools to answer the research questions and to obtain accurate results.

3.3 Classroom Observation

3.3.1 Definition of Observation

Hitesh, B. (2020) defines observation as a method to observe and describe the behaviour of a subject. It is a way of collecting relevant information and data by observing. It is also referred to as a participatory study because the researcher has to establish a link with the respondents and for this has to immerse himself in the same setting as theirs. In other words, observation is a direct and a participant tool of data collection

3.3.2 Description of Classroom Observation

The research opted for this tool since we could have extensive contact with the sample. Thus, the observation was direct and participant. The classroom observation took place over three sessions during the reading comprehension course. The aim was to observe the behaviour of pupils while dealing with vocabulary activities based on their text book texts selected for their syllabus. The title of the text book is *Getting Through* (SE2). The first support covers pages 48 and 49, the second text is found on page 69, and the third one on pages 89 and 90. The focus was on reading activities related to vocabulary such as labelling, matching and multiple-choice activities; the pupils were supposed to use as much vocabulary

as they could while dealing with the tasks. Some of the above activities were repeated so as to check the consistency of the results.

3.4 Students' Questionnaire

3.4.1 Definition of the Questionnaire:

It is a tool of collecting data that is done by submitting a set of written questions to the respondents to be answered. Sugiyono (as cited in Najna wati, 2019) defines questionnaire as an efficient data collection technique when researchers know with certainty the variables to be measured and know what can be expected from the respondents.

3.4.2 Description of Students' Questionnaire

The pupil's questionnaire is designed to describe their linguistic intelligence, and it is divided into two main sections containing 15 questions. The types of questions are closed ended (yes / no questions or multiple choices) and open-ended questions. The two sections are:

Section1: (Q1 – Q3) Back ground information: Meant to get information about pupils' gender, the subject matters they study and their age when they started learning English.

Section2: (Q4-Q15) Pupils linguistic intelligence: This section seeks to describe pupils' linguistic intelligence. The questions were designed on the basis of the characteristics of linguistically intelligent people. (Q4) aimed to get information about whether pupils like reading, and what kind of documents they like reading. (Q5-Q6) sought to explore the ability of pupils in understanding what they read, the reasons behind the lack of understanding, and the strategies they use to understand.

(Q7-Q8) were put to know about the time students spend on reading per day, and whether they were fluent readers or not. (Q9) was set to identify the memory techniques of pupils that is the thinking strategies (memorise and summarise), (Q10) was formulated to know whether pupils like using the reconstructing process to recall what they have already read and the reasons behind doing so. (Q11) was put to know about the way pupils deal with reading texts, that is whether they use descriptive or analytical language. (Q12) was set to explore pupils' ability to develop the reading skill. (Q13) was meant to know about the predominant strategy adopted by the participants to get the meaning of words in a reading text. (Q14) was set to investigate about the power of remembrance among pupils and ultimately, (Q15) was put to inspect the proficiency of pupils in spoken language.

Conclusion

Notwithstanding, this chapter focused on the method adopted, as well as the participants, and it provided a detailed description of the research instruments.

Chapter Four

Results

Introduction

This chapter is devoted to the analysis of the data obtained from the research. It also aims to report the results and give accurate and full presentation and interpretation of the analyses.

4.1 Analysis of Classroom Observation

Table 1: Pupil's reaction towards vocabulary activities

Sessions	Activity One Labelling Pictures	Activity Two Matching Definitions Synonyms, Opposites	Activity Three MCQS
Session One	-Respondents somehow passive and reluctant -Very limited use of academic language	-Struggle to find the answer -Unsure about their responses -Nervous	-Positive reaction -Participation omnipresent -Satisfactory responses.
Session Two	-More enthusiastic -Excellent answers among some respondents -Vocabulary shortage among others	-Still face the same problem -lack of understanding	-Excited -Relies on the context -Nearly all of them provided answers
Session Three	-The respondents have become acquainted with the questions -Though they have the answer, they have limited vocabulary.	- Difficulty of understanding scientific terminology -Take more time to answer - The difficulty persists - Lack of vocabulary - Relied on the context	-Very interactive -Excited -Again, relied on the context -Their answers were not always successful

4.2 Analysis of pupil's Questionnaire

Question1 : Gender. Answer by ticking in the appropriate box.

Male Female

The majority of the participants are females (97%), and only (3%) are males.

Question2: What are the subjects you study?

All the respondents study the same subject matters since they belong to the same group, but what to be noticed is that most of them put English first when they started listing the subject matters.

Question3: When did you start learning English?

Before 6 between 6 and 10 after10

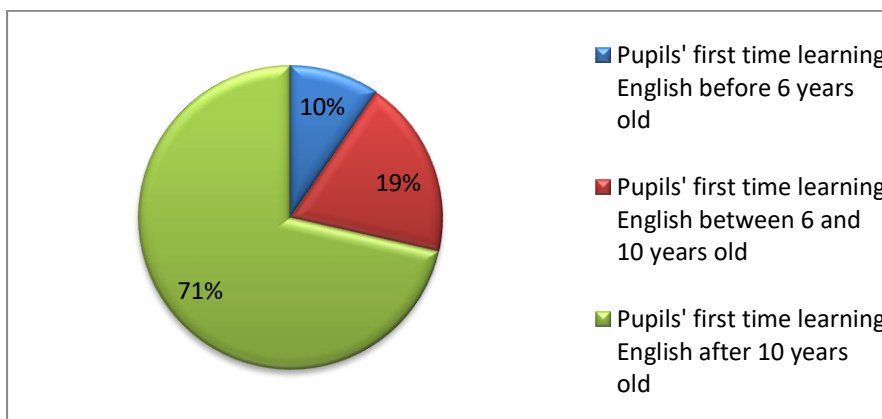


Figure1: Pupils'' First Time Learning English.

The results in the figure above reveal that (71 %) of the participants including one male started learning English after 10. Whereas some others (19 %) stated that they started between six and ten. However, very few female respondents (10%) declared that they started before 6.

Question4: Do you like reading in English

Yes No

If yes, what sort of documents do you usually read?

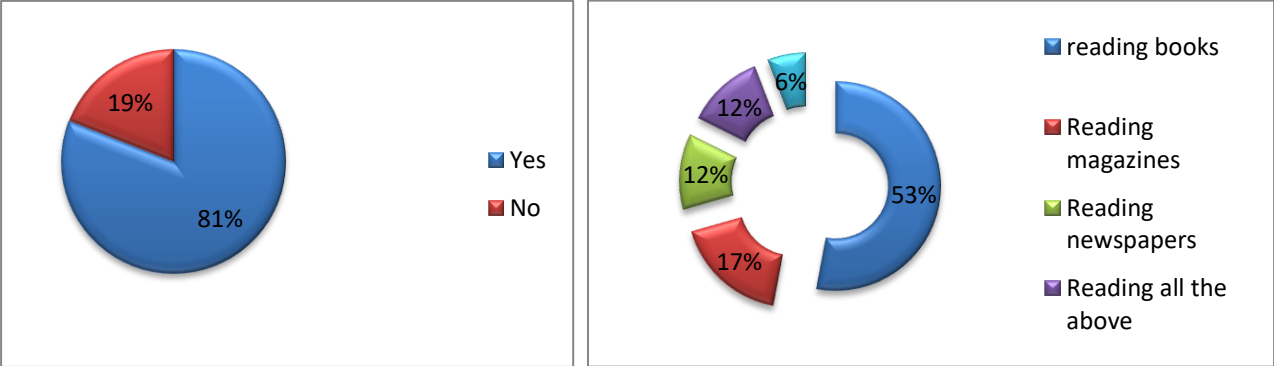


Figure2: The Documents Which Pupils ‘Read

The results show that (19%) of the respondents were not interested in reading, while (81%) did like reading different documents. The graph demonstrates that (53%) of the participants liked reading books. However, some of them (17%) said they liked magazines. While (12%) preferred reading newspapers. Few others (12%) stated that they enjoyed reading all the above documents. Very few (6%) liked fictional books.

Question5: Do you find it easy to understand and comprehend what you read?

Yes No

-If “No” what makes it difficult for you to understand what you read?

Lack of vocabulary lack of interest in understanding

any otherspecify?

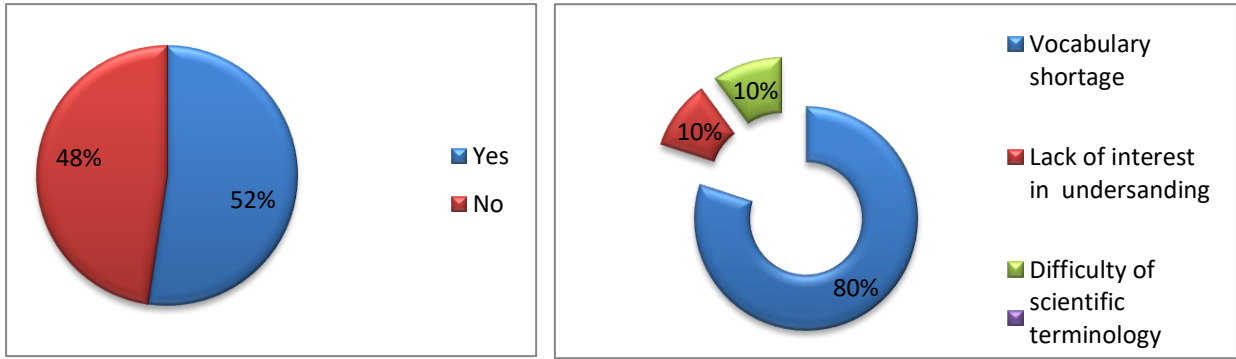


Figure3: Pupils’ Difficulties in Understanding

The figure clearly demonstrates that more than half of the respondents (52 %) found it easy to understand what they read while (48 %) found it difficult. When investigating about the causes of the difficulty, we found out that (80 %) of the participants declared because of vocabulary shortage. But (10 %) said because of lack of interest in understanding, whereas another (10 %) stated that the scientific terminology was the cause.

Question6: How do you manage to comprehend what you read?

Deducing the meaning generating questions about reading texts

Making predictions

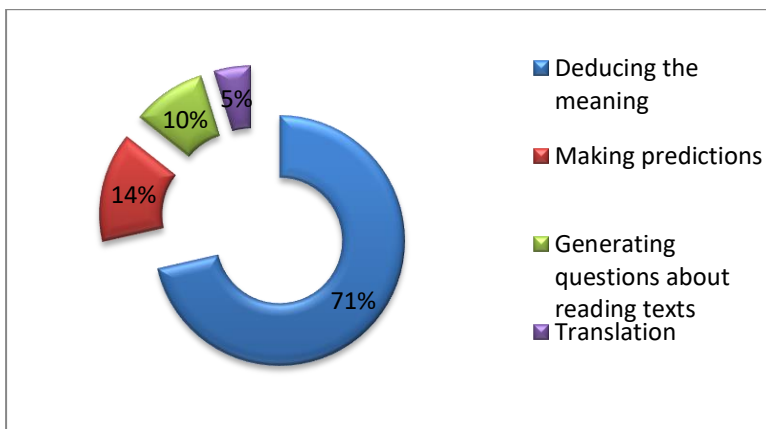


Figure 4: Pupils’ Strategies in Reading Comprehension

It is clear that the majority (71 %) of the participants relied on deducing the meaning in reading comprehension. While few others (14 %) depended on making predictions, some (10 %) opted for generating questions about reading texts. However, only (5 %) used translation as a strategy for comprehension.

Question7: How much time do you spend on reading?

Less than one hour (a day) One to three hours
Three to four hours More than four hours

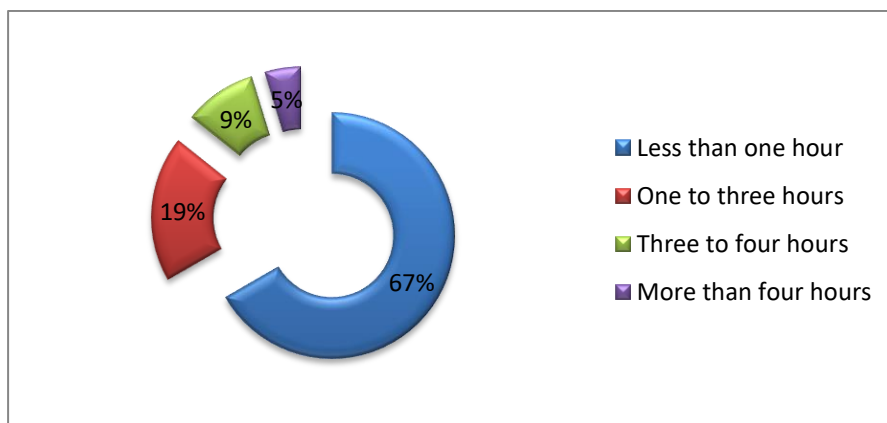


Figure5: The Time Pupils Spend on Reading

The results obtained reveal that (67 %) of the participants read for less than one hour a day. However, (19%) claimed that reading for them took from one to three hours. While (9 %) said that it took them from three to four hours of reading but, only (5 %) o stated that they read for more than 4 hour per day.

Question8: Do you spell words fluently when reading?

Yes No

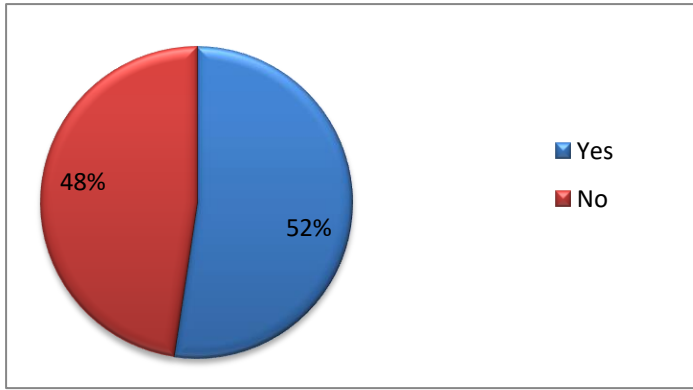


Figure 6: Pupils' Fluency

The figure above shows that most respondents (52 %) said they were fluent readers. But, the others (48%) declared that they lack fluency in reading.

Question 9: Can you memorise and summarise what you read?

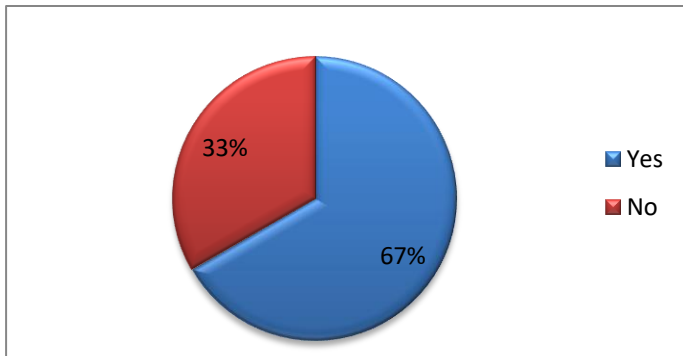


Figure 7: Pupils' Ability to Memorise and Summarise

The figure above shows that the majority of the participants (67 %) declared that they could memorise and summarise what they read. while (33%) mentioned that it was difficult for them to find the exact words.

Question 10: Do you like retelling the stories you have already read?

Yes No

If yes, why?

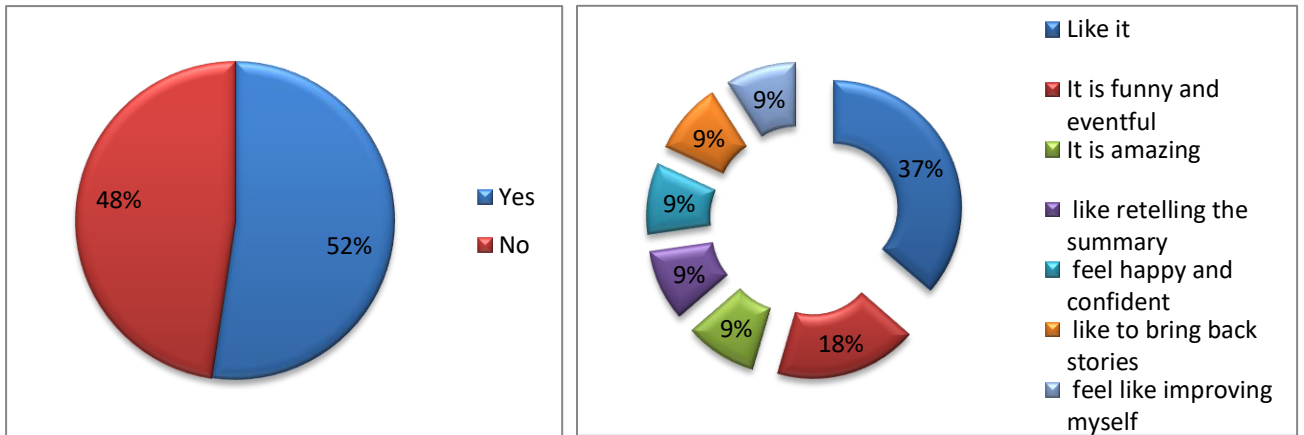


Figure8: The Reasons Behind Pupils' love for Retelling Stories

The results show that the majority of the participants (52 %) said that they liked retelling stories while (48%) replied that they did not like it. Concerning the reasons behind their love for retelling stories, some respondents (37 %) said because they liked it, few others (18%) declared they found it funny. The remaining five reasons are equally ranked and they are as stated by the respondents (9 %) found it amazing, another (9 %) said they felt happy and self-confident. Whereas (9 %) declared they felt like improving themselves. While another (9%) liked retelling the summary and the last (9 %) liked to bring back stories.

Question11: What type of language do you usually use when dealing with reading texts?

Descriptive Analytical

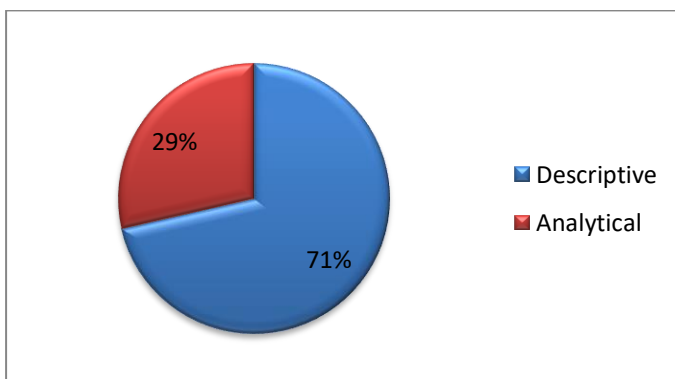


Figure9: The Type of Language Pupils Use

The graph demonstrates that the majority of the informants (71 %) used descriptive language. While (29 %) affirmed they used analytical language.

Question 12: Do you enjoy word gaming?

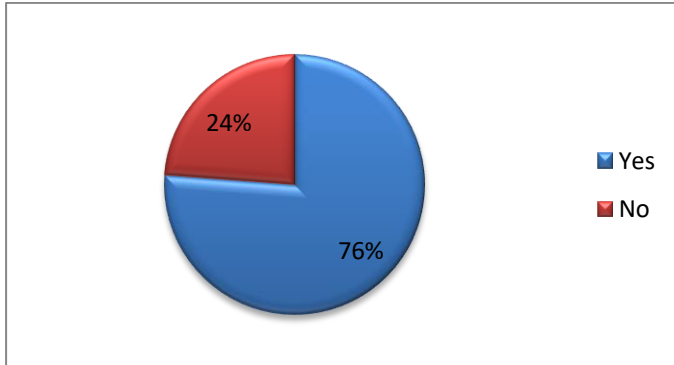


Figure 10: Pupils' Reaction to Word Gaming

The results show that the majority (76 %) of the respondents liked word gaming. Whereas only (24 %) stated that they did not like it.

Question 13: How do you get the meaning of words in a reading text.

Scan (reading for specific information)

Relate word meaning to sentence meaning

The two options

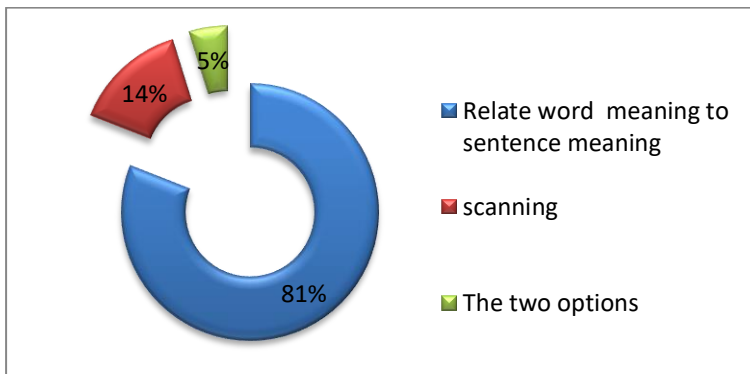


Figure 11: Pupils' Strategies to Get the Meaning of Words in a Reading Text

The findings demonstrate that the great majority (81 %) of the respondents declared that they related word meaning to sentence meaning. While few others (14 %) mentioned that they scanned reading texts to generate the meaning of words. However only (5%) said they relied on the two techniques together.

Question 14: Do you find it easy to remember what you have read?

Yes No

If yes, what helps you do so?

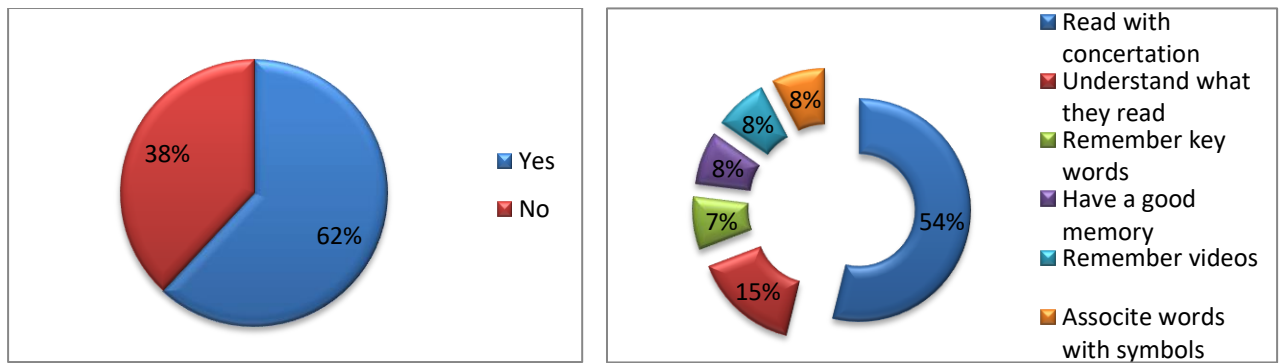


Figure12: Pupils' Strategies to Remember What They Read.

The results from the graph reveal that the majority (62 %) said they could remember what they read, while (38 %) could not. With reference to the strategies, they used to remember, (54 %) stated they read carefully with a focus, (15%) affirmed they could understand so they could remember. Only (7 %) could remember important key words while, (8 %) declared they associated words with symbols. Another (8 %) stated they had a good memory and the other (8 %) asserted they could remember videos.

Question 15: Can you explain what you read.

Yes No

If yesspecify?

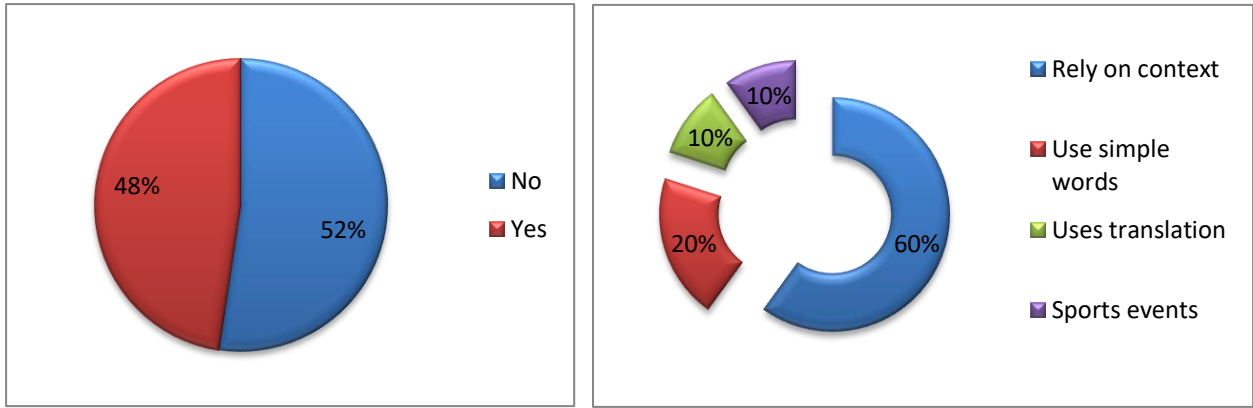


Figure 13: Pupils' Strategies to Explain what They Read

It is clear from the first figure that (52%) of the respondents could explain what they read. While (48%) could not. It can also be observed that (60 %) declared that they depended on the text to explain what they read. While (20 %) stated that they used simple words. (10 %) confirmed the use of translation. Whereas another (10 %) stated that explanation was possible only if it were related to sports.

Conclusion

By concluding, this chapter was devoted to the analysis of pupils' questionnaire, and it provided detailed explanation, and interpretation of the results.

Chapter Five

Discussion and Recommendations

Introduction

The chapter is devoted to the discussion of the results of the dissertation in relation to the hypotheses stated before. The data collected from the classroom observation to the pupils' questionnaire was analysed and are now discussed to prove the validity or rejection of the hypotheses. It also includes some recommendations for teachers, pupils, text book writers, and policy makers to develop pupils' reading comprehension.

5.1 Discussion of the Findings

The main aim of this research was to explore the effect of linguistic intelligence, and vocabulary knowledge on pupils' reading comprehension.

The results obtained from the classroom observation showed that during the first meeting, the pupils were a little bit reluctant, passive, and their reactions towards the tasks were not as expected maybe, because of the long exceptional holidays (nearly seven months) as a result of the Covid 19 pandemics add to that, the timing of the session which was programmed from 11 to 12. The next sessions, with some guidance, and explanation from the part of the teacher, the pupils were very interactive, and enthusiastic, and this was reflected in their answers.

Indeed, if we consider the labelling activities, most pupils succeeded to interpret the pictures, some used sophisticated words and structures; others elaborated simple language, sometimes with one word. Regarding the matching activities, it was noticed that only a few respondents could successfully solve this task, the others could not because they failed to understand the meaning of the words. Thus, they did not succeed to associate the words with

the given definitions. However, with regard to the multiple-choice tasks, nearly all the pupils provided correct answers, and the reason was that they related their answers to the text that is the context helped them since there was always a hint to direct them.

Surprisingly, some female pupils tackled the activities differently; they went further as to provide historical information in well-built sentences mainly for the labelling activities, add to this they were fluent. The current results reveal that pupils with a wide range of vocabulary knowledge dealt with the activities better than those with low vocabularies as Ratna (2019) puts it “in reference to reading comprehension, the students should acquire a number of vocabularies to get a better understanding of reading an English text.” To this end, undoubtedly, vocabulary knowledge is an important predictor which can affect reading comprehension. Therefore, this result validates the first formulated hypothesis.

The findings from the students’ questionnaire revealed that (81%) of the students liked reading different documents in English, yet most of them did not really understand what they read; mainly because of vocabulary shortage or lack of interest in understanding. Although the great majority (71%) of the respondents relied on deducing the meaning from the context as a strategy to comprehend what they read, it was not enough, since there are other strategies to be taken into account, Swanborn & de Glopper (1999 cited in Cain, 2007, pp.5-6) stated that many studies of vocabulary learning from context have investigated directed or deliberate learning, where attention is directed to the target words. As a result, these studies might overestimate the use of this strategy in the real world, in which word meaning is incidental to the activity of reading.

Moreover Cain (2007) mentioned that the analysis of context is an important means through which young readers can consolidate and extend their vocabularies. Furthermore, it is worth mentioning that 67% of the participants lacked practice in reading that is they did not

spend more than one hour per day on reading, and this implies that students' reading habits are not structured. Alongside this, Cain (2007) stated that feedback and practice might be beneficial for developing skilled use of context. Thus, pupils' reliance on context needs to be reinforced by reconsidering their reading habits and the time they devote to reading in order to extend their comprehension.

The results also clearly revealed that most participants mastered the strategy of summarising which demonstrates their comprehension of information and ideas. Moreover, a great number of respondents reported that they enjoyed retelling stories and that fact helped them to learn to organize and describe events which enhanced reading comprehension. The findings also showed that learners could memorise and memorising involves comprehending what they have already memorised. Word gaming was another activity enjoyed by most of the participants. Additionally, the ability of the respondents to remember and explain what they read placed them among linguistically intelligent people and this was reflected in the way they tackled the activities given to them in the classroom.

In this respect, Ratna (2019) states that linguistic intelligence is the ability to use language either in spoken form that is in listening and speaking or in written form that is in reading and writing. Considering the discussion above, it is worth mentioning that the students who enjoyed a wide range of vocabularies were the same students who showed signs of linguistic intelligence, and the same ones who solved the different activities successfully. To this end, one can say that linguistic intelligence can affect students' reading comprehension. Thus, the second hypothesis of this research is confirmed.

5.2 Pedagogical Implications:

Following the results, there are some implications of the research which can be summarised as follows:

- This research pours in the field of education, and it brings about new insights, especially in Algeria where English as a language is challenging other languages like French day after day.
- As shown in the results there are some points to be considered. Thus, this research sheds the light on some key concepts which should be put on the spot light in the teaching learning process.
- This research aimed to provide a clear view about the effect of linguistic intelligence and vocabulary knowledge on reading comprehension as these can lead learners to get fruitful academic achievements.

5.3 Recommendations

To take advantage from the findings of this research, some recommendations can be addressed to the teachers, students, textbook writers, and policy makers.

5.3.1 Recommendations for Teachers

Based on the research findings and owing to the fact that teachers share half of the responsibility in the learning of their students, they should be provided with some recommendations, and advice.

- Teachers should encourage their students to read.
- Teachers should be aware about the linguistic level of students and provide tasks accordingly.

- Teachers should push pupils to summarise what they read to improve their comprehension.
- Teachers should provide students with strategies to improve their vocabulary knowledge.
- Teachers should bear in mind the different learning styles of students.
- Teachers should supply the learners with the necessary pedagogical tools to boost their reading skill.

5.3.2 Recommendations for Pupils.

Basically, pupils have a positive attitude vis -a- vis reading. Yet, reading is not an easy skill; they should follow some guidelines which can help them achieve comprehension.

The following steps may be useful:

- As comprehension can affect their learning, students should develop their ability to understand what they read.
- They should learn how to improve their memory.
- They should develop their reading skill and learn a new word every day.
- Pupils are advised not only to satisfy themselves with knowing the meaning of a word, but its function and position in the context for future use.
- They should know that developing their linguistic intelligence and vocabulary knowledge will lead to better academic achievements.

5.3.3 Recommendations for Textbook Writers and Policy Makers

Based on the results, and to better understand the implications of these results, textbook writers, and policy makers are recommended to:

- Consider the different intelligences and learning styles of pupils.
- Provide the necessary materials and activities when designing books.

- Investigate the possibility of implementing MI theory in the teaching learning process in Algerian schools, especially the linguistic intelligence since the standardized tests such as “BAC” and “BEM” reflect on this type of intelligence when reading the exam paper text and questions.

Conclusion

In conclusion, this chapter was devoted to the discussion of the research findings, the practical implications as well as providing recommendations for teacher, pupils, and all stake holders.

References

- Armstrong, T. (2003). *The multiple intelligences of reading and writing: Making the words come alive*. Alexandria: ASCD.
- Armstrong, T. (2009). *Multiple Intelligence in classroom* (3rd ed.) Alexandria, Virginia: ASCD.
- Behjat, F.Y.M., & Bagheri, M.S. (2012). Blended learning: A ubiquitous leaning environment for reading Comprehension. *International journal of English Linguistics*, 2 (1), pp.97-106.
- Cain, k. (2007 November1). Deriving word meanings from contexts: Does explanation facilitate contextual analysis? *Journal of Research in Reading*, 30 (4) , 347-359. (ERIC document Reproduction Service NO. EJ778837). Retrieved August 18, 2009, from ERIC database.
- Dorkchandra, D. (2010). *Enhancing English Comprehension through a text structure reading strategy CALL program* (Doctoral thesis) in English language studies, Suranaree University of technology. Thailand.
- Erlina, D., Marzulina, L., Astrid, A., Devanagari., Sapriati, R.S., Amrina, R.D., Mukminin, A., & Habibi, A. (2019). Linguistic Intelligence of Undergraduate EFL Learners in Higher Education: A Case Study. *Universal Journal of Educational Research* 7(10):2143-2155, 2019 DOI: 10.13189/ ujer.2019. 071012
- Hamoudi, A. (2010). *Multiple Intelligence and teaching English as a Foreign Language, the case of second year pupils at Malika Gaid Secondary School Setif* (Doctorate thesis). Ferhat Abbas University, Setif, Algeria.

- Hashemi, A. (2008). *On the relationship between multiple intelligences and reading Comprehension tasks: An authentic MI theory-based assessment. Proceedings of the regional conference on English Language Teaching and Literature*. Islamic Azad University. Roudhen Branch, pp.54-63
- Hemmati., & Sadeghi, N. (2015). “The Relationship between Intelligence Ability Types and Learners’ Foreign Language Achievements”, *International Journal of Asian Social Society*, Vol.5(10), pp.561- 569
- Hidayati, D. (2018). *Students’ Difficulties in Reading Comprehension at the First Grade of Sman 1 Darussalam Aceh Besar (Sajana Degree S-1 on Teacher Education) Ar-Raniry State Islamic University Darussalam Banda Aceh*
Retrieved from <https://repository.ar-raniri.ac.id>
- Hitesh, B. (2020). *Observation Methods, Definitions -Types, Examples, Advantage*. Tagged with Market Research. Retrieved from [https://www. Marketing 91.com](https://www.Marketing91.com)
- Komiyama, R. (2009). CAR: A means for motivating students to read. *English Teaching Forum*, 47(3) , pp. 32-33. Retrieved from <http://files.eric.ed.gov/EJ923458.pdf>.
- Najna wati, N. (2019). *The Correlation Between Students’ Reading Habits and Students’ Reading Comprehension at the Second Grade of MTS NEGERI Parepare*. Retrieved from <http://repository.iainpare.ac.id>
- Rahimi, M. Sadighi, F., & Hosseiny Fard, Z. (2011). The impact of linguistic and emotional intelligence on the reading performance of Iranian EFL learners. *The journal of teaching language skills (JTLS)* 3(1), PP.152-170.
- Ratna, S. D.(2019). *Linguistic Intelligence, Vocabulary knowledge and Students’ Reading Comprehension (A correlational study at the eleventh-grade students of Islamic Senior High School of Madrasah Pembangunan UIN Jakarta. (Thesis, St Islamic University of Jakarta, Indonesia)*. Retrieved from <http://repository.uinjkt.ac.id/dspace/handle/123456789/47052>

- Read, J. (2004). Research in Teaching Vocabulary. *Annual Review of Applied Linguistics* ,24 , pp. 146- 161.
- Riche, B., Ameziane, H., Hami, H., Arab, S.A., & Bensemmane, M. (2016). *Getting through secondary education, year two*. (Rev.ed.). Algiers: The National Authority for School Publication.
- Stahl, S.A. (2005). “Four Problems with Teaching Word Meanings” (and what to do to make Vocabulary an integral part of instruction). In E.H. Hiebert and M. Kamil. *Teaching and Learning Vocabulary in Another Language*. Cambridge University Press.
- Susanta, M. (2020). *The Correlation Between Reading Habit and Linguistic Intelligence of English Education Study Program Students of Tridinanti University Palembang*. S-1 thesis, 02100 Universitas Tridinanti Palembang. Retrieved from <http://repository.univ-tridinanti.ac.id>
- Vincey, D., & Pughalenti, N. (2016). A Study of Linguistic Intelligence and Academic Achievement of the Students at Standard IX Level. *Shanlax International Journal of Education*. ISSN :2320- 2653.4(2)

Appendices

Appendix A

Pupils' Questionnaire

This questionnaire is designed to gather information about pupils' linguistic intelligence. You are kindly requested to answer either by ticking (✓) or by providing full information. Thank you for your help.

Section One: Background Information

1/ Gender:

Male

Female

2/ Subjects studied.....

3/ When did you start to learn English

Before 6

between 6 and 10

After 10

Section Two: Linguistic Intelligence

4/ Do you like reading in English.

Yes

No

- If "yes", what sort of documents do you usually read?

Books

magazines

newspapers

all the above.

5/Do you find it easy to understand and comprehend what you read?

Yes

No

-If "No" what makes it difficult for you to understand what you read?

Lack of vocabulary lack of interest in understanding

any otherspecify.

6/ How do you manage to comprehend what you read?

Deducing the meaning.

Making predictions. generating questions about reading texts.

7/ How much time do you spend on reading?

Less that 1hour (a day) 3-4 hours

1-3 hours More than 4 hours

8/Do you spell words fluently when reading?

Yes

No

9/ Can you memorise and summarise what you read?

Yes

No

10/ Do you like retelling the stories you have already read?

Yes

No

If yes, why?.....?

11/ what type of language do you use when dealing with reading texts?

Descriptive analytical

12/ Do you enjoy word gaming?

Yes

No

13/ How do you get the meaning of words in a reading text?

Scan (reading for specific information)

Relate word meaning to sentence meaning

The two options.

14/ Do you find it easy to remember what you have read?

Yes

No

If yes, what helps you do so?.....specify?

15/ Can you explain what you read?

Yes

No

If yes,specify?

Appendix B Vocabulary Activities

Text 1

Reading and writing Text pp.48-49

Martin Luther King. The Man of Peace

*Black Americans can do a lot of things that their parents could not do years ago because of racism. They can vote; they can eat in any restaurant they like; and their children can go to the same schools as white children. As we prepare ourselves to celebrate Martin Luther King Day next Monday, we'll reproduce a part of King's address **I Have a Dream** in memory of this great leader who was able to combat racism and hatred with non-violence and love.*

I have a dream that one day on the red hills of Georgia the sons of former slaves and the sons of former slave owners will be able to sit down together at a table of brotherhood. I have a dream that my four children will one day live in a nation where they will not be judged by the colour of their skin but by the content of their character. I have a dream that one day little black boys and black girls will be able to join hands with little white boys and white girls and walk together as sisters and brothers.

When we let freedom ring, when we let it from every village, from every state and every city, we will be able to speed up that day when all God's children, black men and white men will be able to join hands and sing in the words of the old Negro spiritual, "Free at last! Free at last! Thank God Almighty, we are free at last!"

Task1: Look at the picture on page 48, and say what does it represent.

Task2: Find in the text a word for each of the following definitions.

- a- Metal container, usually with a lid for liquids.
- b- Speech or talk to an audience.
- c- Of the spirit or soul, of religion not of material things.

Task3: Circle the choice that best completes statements 1, 2 and 3.

1/ Martin Luther king hoped his children to.

- a- Be free,
- b- Rule America,
- c- Leave America.

2/ Martin Luther king encourages people to

- a- Make war,
- b- Establish peace,
- c- Kill black people.

3/ Martin Luther King Day is celebrated

- a- Every day,
- b- Every month,
- c- Every year.

Text2

Reading and writing Text pp.69-70

Another Kind of Pollution

For a long time, noise has been known to cause sleeplessness and irritability. Now other studies are linking it to a wide range of mental and physical disturbances. In Los Angeles, researchers have found that people living near airports have a higher rate of mental illness than people living eight kilometres away. In industry, a link has been established between high noise levels and the high number of cardiovascular disease and stress related problems. The effect of noise on people is borne out by experiment on rats, which show that those exposed to certain high frequency sounds had up to 20 times the normal amount of adrenalin in their blood. In the opinion of many hearing specialists, time is running out. If urban noise continues to increase at the present rate, in 20 years our cities will be twice as loud as they are now. The number of mental diseases will be multiplied by two or three and that of physical illness by three or four. This health alert against the dangers of noise pollution is seriously taken by the American public authorities.

Task1: Look at the pictures on page 69 then say what it represents.

Task2: Read the article on page 69 and find the following:

- a- A noun which means the condition of someone who is easily made angry.
- b- A verb which means “is confirmed”.
- c- An adjective “which is related to the brain.

Task3: Circle the choice that best completes statements 1, 2 and 3.

1/ The ear in picture “A” is

- a- Shown through a broken window.
- b- Assaulted by noise.
- c- Aching.

2/ The ear in picture “B” is wearing

- a- A phone device.
- b- An MP3.
- c- A hearing aid.

3/ The topic of the magazine article will be about.

- a- Ear diseases.
- b- The different functions of ears.
- c- Noise pollution.

Text3

Reading and writing Text pp. 89-90

We can remove great numbers of mobile electrons from certain materials, leaving an excess of protons. This produces a positive charge on the materials. If a given material picks up an excess of electrons from some other objects, a negative charge is produced. The charges, positive or negative, are given the name of static electricity.

Our first experiment illustrates the facts that unlike electrical charges are attracted to each other; and like charges are repelled by each other. Suspend two balloons by equal lengths of thread from a thumbtack fastened to the top of an open doorway. Rub each balloon on a woollen coat sleeve. This will charge both balloons the same way. Note that they repel each other. But we do not know whether the charge they carry is positive or negative.

Now, rub a glass rod with silk. When glass is rubbed with silk, it acquires a positive charge. Place the glass rod between the balloons. If the balloons are attracted to the rod, they are negatively charged because unlike charges attract each other. If the balloons move farther apart, they are positively charged because like charges repel each other.

If a balloon is rubbed and then placed on a woollen coat sleeve, it sticks to the wall. This happens because there is always an attraction between a charged object, like the balloon, and an uncharged object, such as the wall or a ruler or pencil. When a negatively charged balloon is brought up to an uncharged wall, the electrons move to the opposite side on the balloon. There is an attraction between the balloon and the positive (+) charge on the near side of the wall. On the other hand, if a balloon is positively charged, it attracts electrons. The electrons will rush over to the edge of the wall nearest the balloon and the balloon will stick to the wall.

Task1: Look at the pictures on page 89 and use the information in the captions to say what they represent.

Task2: Match the following words with their opposites.

A	B
1-Repell	a- Pick up
2-Static	b- Attract
3-Remove	c- mobile

Task3: Circle the choice that best completes statements 1, 2 and 3.

1/ Unlike charges

- a- Attract each other,
- b- Repell each other
- b- Produce electricity.

2/Attraction happens between

- a - Positively charged objects.
- c- Charged and uncharged objects.
- d- Negatively charged objects.

3/Repulsion happens between

- a- Positively charged objects.
- b- Negatively charged objects.
- c- Like charged objects.