



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



**Techniques in Teaching Reading in EFL for Children With Down  
Syndrome**

**Case Study : Children with Down Syndrome at Bousaada Pedagogical  
Institute for Children with Intellectual Disabilities**

Dissertation submitted to the Department of English in Partial Fulfillment of the Requirement  
of the M.A. Degree in “*Didactiques de L’Anglais*”

**SUBMITTED BY**

Mis. Bochra Betiti

Mr. Boumahni Sidali

**SUPERVISED BY**

Mis. Selma Nadji

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## **Dedication**

All the words of gratitude toward whom we have the privilege to call Mom and Dad.

To our Brothers and sisters

Special dedication to all our teachers...

You have always judged us liberally , we hope you will judge these pages in the same spirit .

A special thanks to the most beautiful girl we had as a participant « Imen and Melissa ».

To all our friends .

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## Table of Contents

<b>Dedication.....</b>	<b>i</b>
<b>Acknowledgments.....</b>	<b>ii</b>
<b>Table of Contents.....</b>	<b>iii</b>
<b>List of Tables.....</b>	<b>vi</b>
<b>List of Figures.....</b>	<b>vii</b>
<b>List of Acronyms.....</b>	<b>viii</b>
<b>Abstract in English.....</b>	<b>ix</b>
<b>Abstract in Arabic.....</b>	<b>x</b>
<b>General Introduction.....</b>	<b>1</b>
Introduction.....	1
1. Statement of the Problem.....	3
2. Aims of the Study.....	3
3. Research Questions.....	3
4. Research Hypotheses.....	4
5. Methodology.....	4
6. Limitations of the study.....	5
7. Delimitations of the study.....	5
<b>Chapter one :literature review .....</b>	<b>6</b>

Introduction.....	6
1.1. definition of Down syndrome .....	6
1.2. Physical characteristics and delayed development of Down syndrome.....	7
1.2.1. Physical characteristics .....	8
1.2.2. Health problems associated with Down syndrome .....	8
1.3. Cognitive abilities of children with down syndrome.....	10
1.3.1. Profile of cognitive skills in Down Syndrome .....	10
1.4. The working Memory of Children With Down Syndrome.....	11
1.5. Implications of research on memory for learning and teaching.....	11
1.6. The theory of mind in individuals with down syndrome.....	12
1.6.1. An overview about the theory of mind.....	12
1.6.2. theory of mind on children with down syndrome.....	12
1.7. first and second Language development in DS children.....	13
1.7.1. first Language development in children with Down syndrome.....	13
1.7.2. The links between language and cognition.....	13
1.7.3. Learning to talk.....	15
1.7.4. Early conversations.....	15
1.7.5. Initiating conversations.....	15

1.8. Language learning opportunities.....	16
1.8.1. Bilingualism is children with Down syndrom individuals.....	16
1.8.2. Inclusive education For Children With Down Syndrome.....	17
1.9. Teaching reading skills to children with Down syndrome.....	18
1.10. Principles for learning.....	19
1.10.1. Reading stories .....	19
1.10.2. Getting started.....	19
1.10.3. Picture matching.....	19
1.10.4. Picture selecting.....	20
1.10.5. Picture naming.....	20
1.10.6. Learning about sounds.....	20
Conclusion.....	21
<b>Chapter Two : Methodology, Results and Discussion.....</b>	<b>22</b>
2.1. Research framework.....	23
2.1.1. preliminary stage.....	23
1.1.2. Participant.....	23
2.1.3. Data gathering process.....	23

2.1.4. Time table .....	25
2.1.5. Lesson plan.....	27
2.1.6. Instructions for teaching.....	27
2.1.7. Lessons.....	28
2.1.7.1. Lesson N° one .....	28
2.1.7.2. Lesson N°2.....	30
2.1.7.3. Lesson N°3.....	32
2.1.7.4. Lesson N°4 .....	34
2.1.7.5. Lesson N°5 .....	35
2.1.8. Worksheets.....	36
2.1.8.1. Worksheet One .....	36
2.1.8.2. Worksheet 2 .....	42
2.1.8.3. Worksheet 3.....	44
2.1.9. Homeworks.....	45
2.2. Data Analysis.....	46
2.2.1. Lessons.....	46
2.2.2 Worsheets.....	49
2.2.2.2. Worksheet 2 .....	50
2.2.2.3. Worksheet 3.....	52

2.2.2.4. Homework.....	53
3.3. Findings and Discussion.....	54
Conclusion.....	56
<b>Chapter Three: Implications and Recommendations.....</b>	<b>57</b>
3.1. Implications.....	57
3.2. Recommendations.....	58
Conclusion.....	60
References.....	61

## LIST OF TABLES

Table	Page
1.1 Time Table Template.....	25
1.2 School affairs.....	30
1.3 Kitchen tools.....	32
1.4 Nature elements.....	33
1.5 Body organs.....	34
1.6 Colors.....	35
1.7 Exersice 1 of picture selecting .....	43
1.8 Exersice 2 of picture selecting .....	44
2.1 The participant's worksheet 1 scores.....	49

## LIST OF FIGURES

Figure	Page
1.1 Lesson plan.....	27
1.2 1st exercise of picture matching.....	37
1.3 Exercise 2 of picture matching.....	37
1.4 Exercise 3 of picture matching.....	38
1.5 Exercise 4 of picture matching.....	38
1.6 Exercise 5 of picture matching.....	39
1.7 Exercise 6 of picture matching.....	39
1.8 Exercise 7 of picture matching.....	40
1.9 Exercise 8 of picture matching.....	40
1.10 Exercise 9 of picture matching.....	41
1.11 Exercise 10 of picture matching.....	41
1.12 Exercise 1 of the home work .....	45
1.13 Exercise 2 of the home work.....	45
1.14 Exercise 3 of the homework.....	45
2.1 The participant's performance.....	47
2.2 Comparaison between the two level.....	49
2.3 Participant's activity 1 scores.....	51
2.4 The participant's scores in the 3rd worksheet .....	52

## LIST OF ABRIVIATIONS

EFL : English as foreign language

DS : Down Syndrome

ToM : Theory of mind

IQ : intelligence quotient

## Abstract

Education is a significant tool for the development of basic information and skills. ... Our planet is continually evolving and growing, and teaching and training knowledgeable people who could consider and solve the challenges of modern society in a proper way is quite necessary.

The goal of this research is testing some techniques in teaching reading to children with DS.

More precisely, the aims of the research are threefold :

- 1) To examine if children with DS have the ability to learn a 2L.
- 2) To test if children with DS can learn reading in EFL.
- 3) To test the effectiveness of the techniques used in the research in teaching DS children reading in EFL .

In order to achieve these objectives, a series of materials have been put into use following the counselling and the principles of teaching reading skills to children with Down syndrome suggested by Hughes (2006) which are picture naming, picture selecting, picture matching.

As shown in the findings, the use of visual support was successful in the process of teaching the content, as it showed positive results in the three worksheets exercises.

Also the use of L1 was a beneficial teaching technique as the participant has no knowledge about the target language, the researcher used L1 as the home source of all the contents.

As well as the research showed the effectiveness of homeschooling technique in teaching children with DS and how to deal with them when they are being reluctant.

The research showed the effect and the importance of motivation to avoid the reluctance of the participant.

Example : when she did not want to complete the exercises the caregiver motivated her by promising her that she will give her the phone and to cook some delicious food and to go outside for playing .

The needs , characteristics , preferences and likes of children with DS should be taken into consideration.

Overall, The writers of this dissertation strongly believes in the potentials and the abilities of children with DS , they are capable of learning if the appropriate atmosphere and potentials are available .

*Key words* : Education , children with DS , EFL .

## المستخلص

التعليم هو أداة مهمة لتطوير المعلومات والمهارات الأساسية... وكون كوكبنا يتطور وينمو باستمرار، ومن الضروري جداً تعليم وتدريب الأشخاص ممن يمكنهم التفكير في تحديات المجتمع الحديث وحلها بطريقة مناسبة.

الهدف من هذا البحث هو اختبار بعض التقنيات في تعليم القراءة للأطفال المصابين بمتلازم.

بتعبير أدق ، أهداف البحث ثلاثية و هي كالتالي :

1. إذا كان الأطفال المصابون بمتلازمة داون لديهم القدرة على تعلم لغة ثانية.

2. لاختبار ما إذا كان الأطفال المصابون بمتلازمة داون يستطيعون تعلم القراءة باللغة الإنجليزية كلغة أجنبية.

3. اختبار فاعلية التقنيات المستخدمة في البحث في تعليمهم القراءة باللغة الإنجليزية كلغة أجنبية.

من أجل تحقيق هذه الأهداف ، تم استخدام سلسلة من التقنيات بعد البحث عن أساليب و تقنيات لتعليم مهارات القراءة للأطفال الذين يعانون من متلازمة داون .

كما هو موضح في النتائج ، كان استخدام الدعم البصري ناجحاً في عملية تدريس المحتوى ، حيث أظهر نتائج إيجابية في أوراق العمل الثلاثة.

الأم . كما كان استخدام اللغة الأم كمرجع أسلوبياً تعليمياً مفيداً حيث أن المشارك ليس لديه معرفة باللغة المستهدفة ، واستخدم اللغة الام الباحث كمصدر رئيسي لجميع المحتويات.

وكذلك أظهر البحث فاعلية تقنية التعليم المنزلي في تعليم الأطفال المصابين بمتلازمة داون وكيفية التعامل معهم عندما يرفضون التعلم.

وأظهر البحث أثر وأهمية التحفيز مع وجوب مراعاة احتياجات وخصائص الأطفال المصابين بمتلازمة داون للدراسة .

بشكل عام ، فإن كتاب هذا البحث يوشددون على إمكانات وقدرات الأطفال المصابين بمتلازمة داون ، فهم قادرين على التعلم إذا توفرت الأجواء والإمكانات المناسبة.

المفتاحية الكلمات : الانجليزية كلغة ثانية , التعليم , اطفال متلازمة داون .

## General Introduction

### Introduction

Education is a significant tool for the development of basic information and skills. ... Our planet is continually evolving and growing, and teaching and training knowledgeable people who could consider and solve the challenges of modern society in a proper way is quite necessary.

The term « Knowledgeable » means a person with a normal cognitive Abilities that it able to continually develop .Yet , as there is a contrast in every thing in our lives the term

« knowledgeable » has an opposite « unknowledgeable » which is someone with low cognitive abilities that may not be developed , or , it developes but at a lower level than normal people (mental retardation) .

English and globalization are two sides of the same coin what makes the english language the dominant language resulting in increasing intrest in the field of english as second or foreign language and widening the scope of the language to every single spot in the world that is why it becomes issential to every educational system all over the world .

In this regard studies have been flourishing during the last decades to generalize the language to all segments of society without exception and by that we mean even individuals with intellectual disabilities and as they have been always neglected , researchers made an

effort for special education to involve them with the rest of the society as a part of this world.

In our research we focused on one of the well known cases of individuals with special needs which is Down Syndrome (DS) , since it affects people of all ages , races and economic levels .

It's one of the most frequently occurring chromosomal abnormalities , occurring once in every 800 to 1,000 live births .

All children with Down Syndrome will have some learning difficulties , usually mild to moderate .In addition to this , stubbornness is often a characteristics of down syndrome children and so it can be hard to teach them when they don't want to learn .

Nevertheless , advanced researchs opened the door to a approaches and techniques in teaching down syndrome reading in english as foriegne language (EFL) .

As they considered as children with special needs means they do not

learn the same way normal children do , they even have defficulties in learning reading in thier first language , yet learning reading in EFL there would be techniques and approaches to apply to facilitate the process .

This chapter will cover the statement of the problem , aims resesarch questions , hypothesis and the methods being used to collect the necessary data , plus to the research designe participants and data gathering tools .

## **1. Statement of the problem**

Teaching reading in EFL to children with DS is seen as a complex and challenging process since they have mild to moderate intellectual impairment as they have delays in speech and motor skills, also stubbornness when they do not want to learn.

The disparity in intelligence among children with DS has encouraged many researchers such as Buckley to put this subject under the spotlight.

Yet it is still undeniably neglected consequently children with DS who have higher cognitive abilities and are unfamiliar with the existence of other languages besides their mother tongue are then deprived of great learning opportunities and experiences.

## **2. Aims of the Study**

This research aims at testing if children with Down Syndrome a girl aged 12 Y.O pupil in Bousaada psychology and pedagogy centre have the ability to learn reading in EFL and how to overcome the difficulties in teaching them reading in EFL through using approaches and techniques that are set to facilitate the process.

## **3. Research questions**

This research attempts to answer the following questions:

- 1\_ Do Down Syndrome children have the ability to learn reading in EFL classes?
- 2\_ Is homeschooling a good teaching technique to teach reading for children with DS?

#### **4. Research Hypotheses**

The following hypotheses have been designed to seek answers to the research questions :

H1 : Children with DS have the ability to learn reading in EFL .

Since they have mild to moderate intellectual disabilities , means they have a certain degree of intelligence and it varies from one to another according to his/her IQ what encouraged the researchers to design special learning programs and techniques to help them learn .

H2 : Homeschooling is an effective technique since it offers emotional stability for DS children .

#### **5. Methodology**

The methodology that was used in our research is the experimental method that aims at testing to what extent do children with DS have the ability to learn reading in EFL .

The participant is a 12 years old female pupil in Bousaada psychology and pedagogy center .

It requires the researcher to test the applicability of already designed tasks .

Two main research instruments were used mainly a testing battery (worksheets , homeworks) and observations .This mixed method approach aims at both combining the executions of the test battery with the supervision of the researcher giving the circumstances of the pandemic .

## **6. Limitations of the study**

This research was influenced by several limitations which are the dangerous situation due to the global covid 19 pandemic that caused quarantine and paralyzed all sectors including the education one which made the practical part of this study hardly possible .

## **7. Delimitations of the study**

This research did not require any budget as it has taken place at home applying homeschooling method .

The researcher was comfortable at proceeding the instructions at any part of the day as well as the absence of physical exertion .

## Chapter one

### Literature Review

#### Introduction

Down syndrome is a chromosomal anomaly caused by an error in cell division and there is no definitive answer to why it occurs .

Each and every person with down syndrome has their own unique personality , strenghts and weaknesses like everyone else .

Down syndrome individuals have some degree of developmental delays , these delays can range in severity from mild to moderate .

This part of literature review will cover a beirf overview of Down

Syndrome and what causes the syndrome as well the phisycal charectrisitcis and the delayed development of DS plus to their cognetive abilities and how to overcome their intellectual disabilities .

Moreover, it sheds light on language learning opportunities and principles for learning for children with DS.

#### 1.1. deffinition of Down syndrome

Kate Powell a girl with down syndrome said : «...It's good to see people with down syndrome achieving their dreams .That's my dream »

According to the Scottish down syndrome association a syndrome is a recognisabale set of cognitive features. There is a congenital condition at birth, one not caught later. Trisomy 21 or DS is mankind's most common chromosomal disease.

People with DS often take a longer time to meet certain developmental milestones, and sometimes get extra support.

The national Down Syndrome Society acknowledged that The first to provide an accurate definition of a individual with Down syndrome is John Langdon Down an English physician He was known as the syndom as the father of the syndrome but he was not the first to learn the Syndrome attributes, however, he was the one who best defined the disease .

Recently, progress in medicine and science has allowed researchers to explore the qualities of individuals with Down syndrome, according to the national Down Syndrome Association.

Lejeune (1959) defined Down syndrome as « a chromosomal anomaly. Instead of the usual 46 chromosomes present in each cell, Lejeune observed 47 in the cells of individuals with Downsyndrome. It was later determined that an extra partial or complete chromosome 21 results in the characteristics associated with Down syndrome »

In May of 2000,an international team of scientists successfully identified and catalogued each of the approximately 329 genes on chromosome 21. This accomplishment opened the door to great advances in Down syndrome research and put this subject in the spotlight so this segment of society is no longer neglected by scientists .

## **1.2.Physical characteristics and delayed development of Down syndrom**

Kathleen Fergus (2020) noted from John Langdon Down where he first discovered the syndrome from patients of his sharing the same physical features, medical issues, and cognitive impairment comming up to the conclusion that they have a certain syndrome . He

reported the characteristics as next :

### **1.2.1. Physical characteristics**

Three features that are found in nearly every person with Down syndrome are:

1\_Epicanthic folds (extra skin of the inner eyelid, which gives the eyes an almond shape)

2\_Upslanting palpebral fissures (slanting eyes)

3\_Brachycephaly (a smaller head that is somewhat flattened in the back)

Kathleen Fergus (2020) noticed Other characteristics that can be seen in some individuals with Down syndrome (but not all) include light spots in their eyes, flat noses, a little mouth with an extraordinary tongue and low-set ears that can be folded.

Down syndrome individuals may have distorted teeth, an uneven lip, and a tongue with large cracks. These can often have oval faces and small heads with excess skin at the throat which are popular in people with DS.

Other physical characteristics in Down syndrome are the single hollow of the palms of the hands and short fingers with rosé curved on the inside

### **1.2.2. Health problems associated with Down syndrome**

The Scottish Down syndrome association (2001), researchers acknowledged that These problems can be experienced by any child, but are more common in those with down syndrome. However, many children with DS do not experience most of these difficulties.

According to Kathleen Fergus (2020) introduced seven health problems associated with individuals with DS which are :

### **Hypotonia**

Almost all infants with Down syndrome have low muscle tone (hypotonia), meaning their muscles are weakened and appear somewhat floppy , what makes hard to move their muscles.

### **Vision Problems**

Vision problems are common in Down syndrome and it includes nearsightedness (myopia), farsightedness (hyperopia), crossed-eyes (strabismus), or shaking of the eye in a rhythmic pattern (nystagmus).

### **Heart Defects**

About 50% of DS babies are born with heart defects.

Many of these cardiac abnormalities are minor and may be treated without surgical treatment and some cases require surgery or medication .

### **Hearing Loss**

Hearing problems are common in children with Down syndrome, which affects about 50 to 70 percent .

### **Gastrointestinal Problems**

About 5 percent of Down syndrome children suffer from gastrointestinal issues, such as intestinal obstruction or blockage (duodenal atresia) or an lack of anal opening (anal atresia).

## **Thyroid Problems**

People with Down syndrome may also have difficulties with a small neck gland that they do not produce sufficient thyroid hormone what causes obesity .

## **Leukemia**

Only seldom, around 1 percent of the time, leukemia, a form of cancer that influences blood cells in the bone marrow, may grow in a person with Down's syndrome.

### **1.3. Cognitive abilities of children with down syndrome**

#### **1.3.1.Profile of cognitive skills in Down Syndrome**

Intellectual tests and cognitive assessments are not enough to create a profile for individuals with DS , but it combines deffentive individuals with a behavioral handicap and only measures the findings to determine the particular traits of DS by ginig them the same tests then comparing the results .((Brown, 1996, p.56)

According to Wang (1996) , there exists a profile of neuropsychological strengths and weaknesses in DS individuals and according to IQ scores , people with DS continue to advance in mental age and to acquire new cognitive skills that flourishes this subject and opened the door to new studies in this field .

He has also included a comprehensive review of individuals with DS and has demonstrated specific strengths and deficiencies from emotional to social abilities.

Cognitive factors and deficiencies can be not permanent, meaning that a person's cognitive profile is not extended from childhood to adulthood when their cognitive abilities are known to become older. Growth is a continual cycle of maturity. ( Couzens & Cuskelly, 2014,p.55).

#### **1.4.The working Memory of Children With Down Syndrome**

Working memory is an integral temporary storage and retrieval device. It is the brain network which helps visual and verbal information be processed every day while people go about their lives.

It also promotes practices including knowledge carrying and exploitation, such as reading and language processing understanding written information , or retrieve and dial a telephone number. (Hughes,2006)

Couzens and Cuskelly (2014) wrote that most studies have followed the working memory model of Baddeley to assess the memory abilities and limitations of DS.

According to Hughes , Working memory is made up of three components :

1. the central executive - the part of the system responsible for processing information
2. the phonological loop - responsible for the temporary storage of verbal information.
3. the visuo-spatial scratch-pad - responsible for the temporary storage of visual and spatial information.

Couzens and Cuskelly, (2014) Noted that visual spetial working memory is a general asset for people with DS, and verbal memory tends to be a major limitation that they depend on utilizing their visual-spatial memory in place of verbal memory.

#### **1.5.Implications of research on memory for learning and teaching**

Couzens and Cuskelly (2014) wrote that visual memory appears to be the default memory strategy used and individuals with DS have been shown to remember more items when they are visually represented .

Laws, MacDonald, Buckley, & Broadley, 1995 wrote that « the development of reading may support memory span through the use of visual representation » ( as cited in Couzens and Cuskelly, 2014, p.60) .

According to the researchs we have been mentioned , children with down syndrome are considered as visual learners and teachers rely more on visual representations to insure that learning is taken a place .

## **1.6.The theory of mind in individuals with down syndrome**

### **1.6.1.An overview about the theory of mind**

Hopper (2019) wrote that a theory of mind relates to the willingness to perceive certain people's mental states and accept that certain mental states can be different from ours. The emergence of mind theory is a crucial step in the growth of infants. An advanced theory of mind helps one manage problems , improve cognitive skills, and accurately anticipate the actions of others.

### **1.6.2. theory of mind on children with down syndrome**

Giaouri ,Alevriadou and Tsakiridou (2010) wrote that most studies on ToM depends on false belief tasks of knowing whether or not a child has a mental state understanding.

A research was carried out to test whether children with DS or those with multiple etiologies grasp the principle of mental ability and as individuals with DS have major verbal deficits, and because ToM needs verbal skills, DS individuals had the worst outcomes.

## **1.7. first and second Language development in DS children**

### **1.7.1. first Language development in children with Down syndrome**

According to Buckley (1996) studies in the past ten years have started to uncover some of the explanations for the challenges that most children with Down syndrome face while learning to speak.

Studies focusing on DS children's development draw attention to speech and linguistic deficiencies.

Many infants are late in saying their first words, and this is due to a number of individual differences, another limitation is that their language goes slowly than in ordinary children, because while they use the same set of two-word expressions as other youngsters, they have trouble learning the other guidelines for grammatically appropriate sentences. (Rondal 1988, Miller 1988).

Buckley (1993) wrote that This leads to the speech of many adolescents and adults with Down syndrome being restricted to brief telegraph terms and no purpose phrases, such as "went swimming Dad" rather than "I went swimming and my dad last night"). They also tend to have difficulty in pronouncing words clearly.

### **1.7.2. The links between language and cognition**

Psychologists have also drawn attention to the way in which language and speech are used for cognitive functions. Once we have begun to master a language, we think in terms of words, we reason, recall and do mental arithmetic in words

either silently or aloud. For example, according to our current understanding of short-term memory functioning, (which is essential for most mental processes), it is based on silent speech and develops as children's speech facility increases. Storage and recall from long term memory is also dependent on organising the information on the basis of meanings conveyed by language i.e. grouping items into similar classes such as fruit or clothes. Currently there is considerable interest in the inter-relationships between the development of speech, language and memory abilities (Gathercole 1993).

According to Whorfian hypothesis, speakers from various languages are able to understand, interpret and experience the world in specific ways (Whorf 1956).

Down syndrome children should show cognitive retardants, also they are expected to be slower in understanding, thinking, reasoning.

This cognitive delay may be in part the consequence of the language learning difficulties because Every significant delay in language would eventually contribute to a delay in comprehension, because language is an important tool for learning, understanding, reasoning and learning.

The further we can resolve language and communication challenges for infants, the more prepared they are to develop and enhance cognitive skills. (Buckley, 1993)

### **1.7.3. Learning to talk**

According to Buckley, (1993), all babies learn to communicate before talking, they interact in their first months via crying and smiling and to know other people's mood and when they are happy, sad, angry through a certain behaviour and facial expression. This is the first step on the pathway of social and emotional development.

### **1.7.4. Early conversations**

Once children start smiling, parents start to interact with them. We grin, coo and talk to the infant, hoping for him to gurgle or babble.

Such interactions typically provide all spouses with satisfaction and reinforce relational bonds. If adults spend time in these child conversations, it is the child's first experience of a pleasurable "talk" with an adult, and they begin to understand that being able to communicate is fun and that it is worth becoming skilled in this activity.

They also learn to look, listen and take-turns in the conversation, all the requisite skills are essential to interact successfully while talking (Buckley, 1993)

### **1.7.5. Initiating conversations**

Studies have found that babies with Down syndrome, though a little slower at smiling and joining into these interactions, are as involved as average babies in these interactive games and devote the same amount of time involving adults in this kind of interaction in the middle of the first year of existence (Berger, 1990).

However, tests have demonstrated that as ordinary babies tend to expend proportionately more time discovering their sensory environment, children with Down syndrome do not do so

to the same degree. They are much more involved in men. Nor will they switch on to the use of eye-contact to involve adults in their behaviors at the end of the first year of development, in a manner defined as a comparison eye-contact (Buckley, 1993)

### **1.8. Language learning opportunities**

When babies make referential eye-contacts and draw the adult 's attention to what they are doing, the adult tends to talk and give the child the words to describe what they are doing or thinking about, so that the child's referential eye-contact skills can influence the number of language learning opportunities that they have had. Jones 1980 have also shown that Babys are not always skilled at turn-taking. They seemed not to leave repetitive gaps when they babbled and vocalized, rendering it impossible for their mothers to add to the discussion. This may also have a negative impact on language learning opportunities. Buckley, 1993 Explain why these children grow motor abilities faster than their peers for example, a child with Down Syndrome may start walking from 13-48 months, this is 9-17 months older than a normally developed infant Hypotonia (low muscle tone) and weak ligaments are present at infancy which may lead to differences of motor growth. It is unclear why there is a discrepancy in muscle strength between children with Down Syndrome and their peers. Another explanation is because, since these children need longer to learn to move and develop mobility and balance, they are just not as involved as their peers at an early age.

#### **1.8.1. Bilingualism is children with Down syndrom individuals**

Teachers and parents want to know if the child with Down syndrome should be included in second language learning.

Buckley (2002) , acknowledged that children with down syndrome can learn a

second language as normal children with no negative effect progress in first language , and also they can learn the second language in the same time of learning the first language .She also said that , she knows children doing well in Irish language and Welsh language primary schools even though their first and home language is English .

Another evidence that DS children can learn more than one language is that in bilingual families where the parents from different communities speak two different languages lead to the easy aquisition of both laguages because DS children are naturally exposed to the language and it also known as developing preschool children .

Buckley (2002) in her research said tha Bilingual families are often told not to speak two languages for babies and infants suffering from Down syndrome, assumed to be disadvantaged by hearing two languages because children with Down syndrome have significant speech and language difficulties. There is no published proof of this view actually applies, but a study is under way in Canada which shows no inconvenience.

### **1.8.2. Inclusive education For Children With Down Syndrome**

Brown, (2014) noted that children with DS needs to be involved in the society and to be treated the same way they treat normal children under what's known as the quality of life approach (QoL) he said that QoF is about being belonging and becoming and it provides apportunity to see education from the perspective of life span and inclusive education for DS

children is one on how to involve them in society .

Inclusive education is to include DS children in public schools rather than special schools .

Studies comparing children trained in special schools and classrooms show that optimal learning environments are difficult to create in such schools or classrooms. A research published in 2000 contrasted the findings of specialist schools and mainstream environments educated teenagers of similar skills and family background. The research revealed major academic gains for adolescents with 25 to 30 hours of supplementary help for learning by traditional schooling ( Buckley, Bird, Sacks & Archer, as cited in Hughes, 2006, p. 1)

### **1.9. Teaching reading skills to children with Down syndrom**

Hughes (2006) , introduced a set of activities and strategies to improve DS children spoken language and memory skills , and he added that , Children with Down syndrome learn to read in the same way as typically developing children though they have difficulties in using phonics , they have a good visual memory skills .

As DS have a strong visual memory one approach to teach DS reading is through

Cognitive visual motor ability or CVMA which refers to the ability to integrate vision with the motor system, a requirement to comply with visually guided motor actions.

(Torres-Carrión et all )

Hughes (2006) ,also said He also said that While children who are introduced to

reading in their preschool years show the highest levels of achievement.

Reading will help children with Down syndrome develop vocabulary and grammar knowledge and enhance vocabulary and language skills. Practice reading also helps to build memory skills. (Hughes 2006)

## **1.10. Principles for learning**

### **1.10.1. Reading stories**

Reading stories to children with DS, particularly in early childhood, can help them learn to read and improve their speech and job memory (Hughes 2006).

### **1.10.2. Getting started**

Hughes 2006 , p.2 wrote that children can understand the terms, grammar and context of the terms with comprehension only if they already know and understand the meaning. Therefore, reading programs will be implemented at the point of a child's comprehension. Down syndrome children may typically be slower to understand than other same-age children, so they prefer to follow their understanding of vocabulary and fast fundamental sentence. As children with Down syndrome progress and start reading a simple text with confidence using a language that they already know, learning new vocabulary and grammar becomes a powerful tool.

### **1.10.3. Picture matching**

Hughes introduces Picture matching as a fun strategy to start learning how to read for children with DS .

Picture matching activity is a set of pictures where the child is supposed to match the items that are alike .

#### **1.10.4. Picture selecting**

Using the pictures that your child has just matched with minimal support, ask him/her to 'give me (or show me) the .....(cup) with the guiding him to the correct response .

#### **1.10.5. Picture naming**

Picture naming to show your child a picture of a certain object and ask him to name it or to imitate and repeat the word so he can memorise it .

Picture naming encourages word-reading approximations, as practice helps children to make their speech clearer.

#### **1.10.6. Learning about sounds**

Young children with Down Syndrome begin to interpret by learning entire words and their meanings until they become able to distinguish sounds in terms and relate their letter of sound information to the role of reading.

Young children with Down Syndrome will also have exposure to and appreciate traditional pre-school (and school age) learning games regarding the letters and sounds of their language, taking part in phonics training exercises for their peers (Hughes 2006 , P.6)

In the end of his research Hughes added that All the activities and readings should be based on your child's interests and experiences, and needs to be linked to your child's language comprehension levels (understanding) and language learning needs.

Children who have not made rapid progress with reading will still have benefited from these reading games and activities, as they are powerful and enjoyable ways of improving their understanding and use of spoken language.

## **Conclusion**

This chapter reviewed the related literature to children with DS , their cognitive abilities and the techniques on how to teach them reading in EFL .

The researcher provided a background about the characteristics of children with DS , a cognitive profile and language learning for children with DS.

As there is a continuous development in their cognitive abilities , researchers have taken this advantage to create special education systems and programs to help them learn and to feel no difference than normal children .

The researcher has put these techniques into practice and tested if children with DS have the ability to learn how to read in 2L , the researcher also reviewed the importance of the working memory in learning for children with DS then the researcher concluded with principles for learning for children with DS.

## Chapter Two

### Methodology and Data Analysis

This chapter aims to offer an overview of the approach used in the research, and the method that has been used and how it was carried out.

The researcher adopted online homeschooling approach.

Brian (2015) stated that homeschooling is a parent-led home-based education which is an age-old common method in schooling.

Milton (2008) wrote that homeschooling is a powerful alternative educational system that moved from being a tool for children who cannot go to schools to a political movement.

The aim of choosing homeschooling approach as Duffey (2002), Kidd and Kaczmarek (2010) and Rothermel (2011) stated that the majority of the parents in many surveys have demonstrated satisfaction at the success of their children at homeschools (as cited in Cook et al., 2013). Also it provides children with emotional stability especially children with special needs.

Ensign (2000), Hurlbutt (2011) and Loten (2011) added that Parents have described the advantages of homeschooling, freedom in selecting the program, education levels and daily activities that meet the needs of their children (as cited in Cook et al., 2013).

In addition, the research is opted to use the qualitative approach, four main research instruments were used: lesson plan worksheets, homeworks and observations (Polo, 2016).

This section is divided into nine subsections: preliminary stage, the participants, data gathering process, time table and lesson plan, worksheets and homeworks, rubric of marks, results and discussion and the conclusion (Polo, 2016).

## **2.1. Research framework**

### **2.1.1. preliminary stage :**

In 4 May 2020 the researcher has attempted to contact some families who have children with Down syndrome , also published ads in groups made for individuals with intellectual disabilities as well as public groups in 5 May 2020 .

In the next day the researcher recieved a response from a girl from Bousaada and after explaining the study , the researcher started to introduce the lesson plan and the time table for the caregiver .

As an introductory session the researcher noticed that the participant already exposed to the language ,

she knows that there are other languages besides her mother language like english and french and as the caregiver stated , they always treated her similarly to her other sisters .

### **1.1.2. Participant**

Due to the lockdown and quarantine situation, this study involves one participant, whose first language is arabic , a female aged 12 years old from Bousaada .

A pupil, in Bousaada pedagogy and psychology center . Full consent was offered by her caregivers to be involved in this work.

### **2.1.3. Data gathering process**

The researcher devided the sessions into daily routine .

5 sessions to present and memorise the target items , five sessions to present the material given in a written form and make the participant memorise thier symbolic representation .

The researcher favored to provide the participant with a direct written input instead of teaching her the alphabet which would be time consuming, the researcher preferred to teach her to memorise how the items are written /how the words are shaped , proceeding the work with three worksheets , two homeworks .

In this study the researcher focused on easy familiar items and daily used material .

#### **2.1.4. Time table**

The time table were designed after testing the background of the participant and the knowledge she has about English language by asking the participant what are the words she knows in english language , and as the caregiver reported that the participant has a strong visual memory and high cognitive abilities compared to her fellows in Bousaada Pedagogical institute for children with mental disabilities, also she stated that the participant started to learn basic items in English language in the age of 10 .The researcher devoted the abilities the participant has to introduce the following time table .

As a child with Down syndrome, her level of intelligence is so advanced , and accordingly the procedure incorporated a set of structured lessons distributed on a daily routine for 4 weeks (Polo ,2016) (see Table 1.1) .

Table 1.1

*Time Table Template (Polo ,2016)*

Weeks Days	W1	W2	W3	W4
D1	Introductory  session	Memorizing  the symbolic  representation  of each  element from  each category  .	Home works  and  worksheets	Rubric of  marks
D2	Category N°1 :  School affairs			
D3	Category N°2 :  Kitchen tools			
D4	Category N°3 :  Body organs			
D5	Category N°4 :  Elements of nature			
D6	Category N°5 :  Colors			

### **2.1.5. Lesson plan**

The lessons were designed with the purpose of facilitating the implementation of the courses ( see figure 1.1) .

Stubornness was an obstacle as well as the difficulties found when the participant is being reluctant. To overcome these obstacles the researcher used the reinforcement theory .

Business Jargons(2013) stated that Skinner and his associates proposed the Reinforcement Theory of Motivation .This theory argues that behavior is a function of its consequences, which means that an individual develops behavior after performing certain actions.

The reinforcement theory of motivation is based on the “Law of Effect” concept which suggests that a person would usually replicate certain acts with beneficial consequences and prevent activities with negative or disagreeable outcomes (Business Jargons,2013)

The researcher reinforce the Behaviour of the participant by asking the caregiver to give her things she likes before starting the lesson to motivate her and when she makes any progress the caregiver motivates her to produce more by rewarding her .

## Lesson plan

- Time of the session
- The aim of the lesson
- The method used
- Warming up the participant
- Explanation
- Revision
- Feedback and closure

*Figure 1.1* : lesson plan (Polo ,2016)

### **2.1.6. Instructions for teaching**

In order to meet two objectives of the research the researcher examined the acquisition of some english vocabulary by Down Syndrome child , the second objective is to test if the participant is able to read the materiel given by the instructor after the teaching techniques were used , a total number of 3 worksheets , 2 homeworks were devoted to exercise what have been taught after ten daily sessions of teaching .

The worksheets and the exercises were entirely suggested by Hughes 2006 when he introduced principles in Teaching reading skills to children with Down syndrome which are picture matching , picture selecting , picture naming.

The researcher followed and duplicated the structure of a study done in Spain by Polo 2017 in designing the activities .The description of the worksheets , homeworks and activities will be done individually .

## **2.1.7. Lessons**

### **2.1.7.1. Lesson N° one**

The lessons were divided into categories each category represents five sets of items

The total number were five lessons ( five categories) .

The aim of the first Lesson is representing school affairs for the participant , the material used to present the lesson is pictures of some items related to school for the participant .The researcher described the items in Arabic first then translated each item into English to facilitate the learning process for the participant to memorise and visualise the content and as they have a strong visual memory the choice of using pictures made the process easier .

A total number of the first category were three items which are : book , copybook , pen .

For this category the researcher explained each item for the participant and what is its usage, and the participant were given visual support in order to comprehend the words meaning .

The main method used in the first lesson is grammar translation method as the name suggests, the Grammar-Translation Method focuses on the second language instruction, and translation in and from the target language is their key strategies. Reading and writing are the focus in practice: speech and listening are not given much or no systematic attention. In the


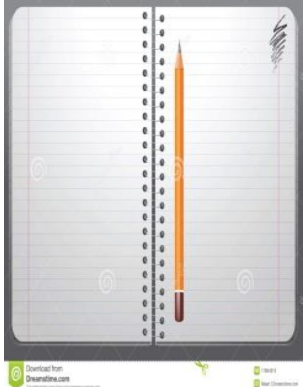

acquisition of the second language the native language of the participant remains the reference (Qing-xue & Jin-fang , 2007) and the researcher also used repetition of content.

The second process in this worksheet is representing the symbolic representation of each item.

The researcher attached each item with its symbolic representation (see table 1.2) then made the participant to memorise the shapes of the words since she has no knowledge about English alphabet , as an alternative , the researcher used visualising and memorizing the content as it is in its written form through repetition .

Table 1.2

*School affairs (Polo ,2017)*

BOOK	
COPYBOOK	
PEN	

**2.1.7.2. Lesson N°2**

In this lesson , the participant dealt with kitchen tools , the category were divided into four items : Spoon , knife , fork and dish .

the items were represented in her L1 then translated into English , the approach were used is

grammar translation method and repetition of content .

after the learner memorised the target items of the given category in English language the researcher asked her to name them by herself then , the researcher changed the order of the items and reasked her to name them.





the second process in the 2<sup>nd</sup> lesson was the same as the first which is representing the symbolic representation of each item .

The researcher attached each item with its symbolic representation (see table 1.3) then made the participant to memorise the shapes of the words

The researcher used visualising and memorizing through repetition .

Table 1.3

*kitchen tools (Polo, 2017)*

Spoon	
Fork	
Knife	
Dish	

### 2.1.7.3. Lesson N°3

Concerning the third lesson , the Participant dealt with some nature elements , the




participants were given three elements of nature : sea , tree , rose ( see Table 1.4).

Learning , visualising and the memorizing process were the same as the previous worksheets

besides to the method which is always Grammar translation method .

Table 1.4

*Nature elements (Polo, 2017)*





Tree	
Rose	
Sea	

#### 2.1.7.4. Lesson N°4

This lesson was devoted to represent the body organs, the presented sheet contained four organs that the participant needs to understand and memorise : nose , eyes , mouth and hair ( see Table 1.5) and the same processes are repeated as in the previous worksheets .

Table 1.5

*Body organs (Polo, 2017)*

Nose	
Eyes	
Hair	
Mouth	




### 2.1.7.5. Lesson N°5

The subject of the last lesson was colors , in this regard , the participant has previous knowledge about the names of colors in english : bleu , white , pink and green (see Table 1.6) .

the same processes are repeated as in the previous lessons .

Table 1.6

*Colors*

White	
Pink	
Green	
Bleu	

## **2.1.8. Worksheets**

### **2.1.8.1. Worksheet One :**

The researcher started the presented worksheet with Getting started strategy « Children can only read with understanding if they already know and understand the words, the grammar and the sentence structures used in the text. Therefore, it is important to introduce reading activities at each child's comprehension level » Hughes (2006)

In this worksheet the participant were presented with a fun strategy which is picture matching .

It was the researcher's first choice to start because it develops and improves visual discrimination skills for children with DS because individuals with DS have been shown to remember more items when they are visually represented (Couzens and Cuskelly, 2014) .

Laws, MacDonald, Buckley, & Broadley, 1995 wrote that « the development of reading may support memory span through the use of visual representation » ( as cited in Couzens and Cuskelly, 2014, p.60) .

Picture matching activity is a set of pictures where the child is supposed to match the items that are alike .

The researcher devoted this theme (picture matching) to every category the participant has learnt ( see figure 8,9,10,11,12,13,14,15) (Polo ,2017 ,p.44).

**Picture matching exercises :** All Kids Network (2020)

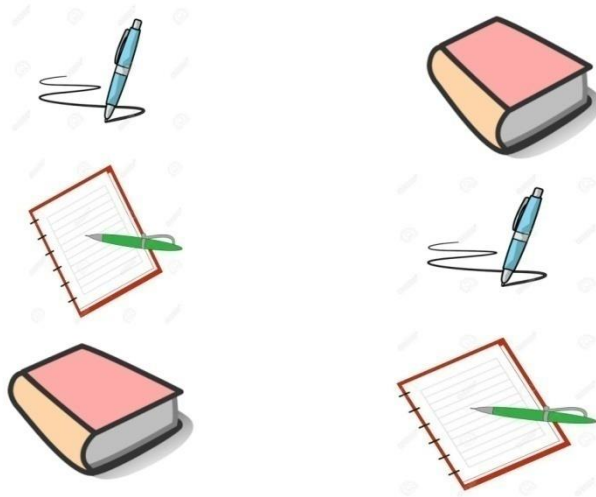


Figure 1. 2 : first exercise of picture matching



Figure 1.3 : Exercise 2 of picture matching

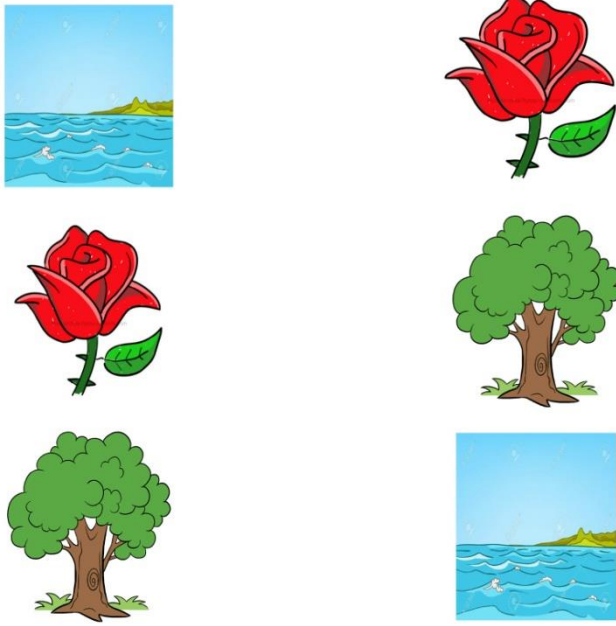


Figure 1.4 : Exercise 3 of picture matching

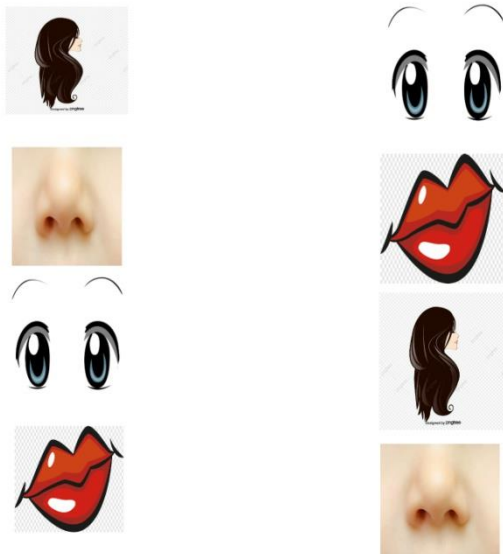


Figure 1.5 : Exercise 4 of picture matching

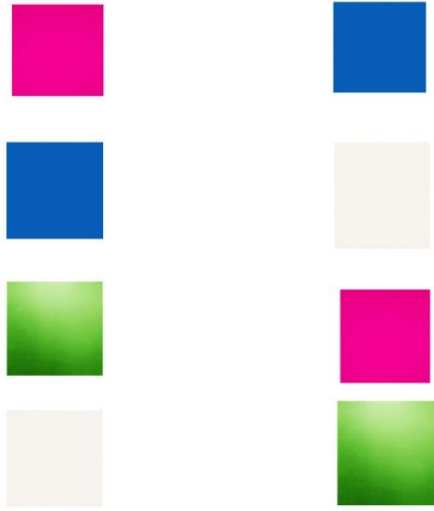


Figure 1.6 : Exercise 5 of picture matching

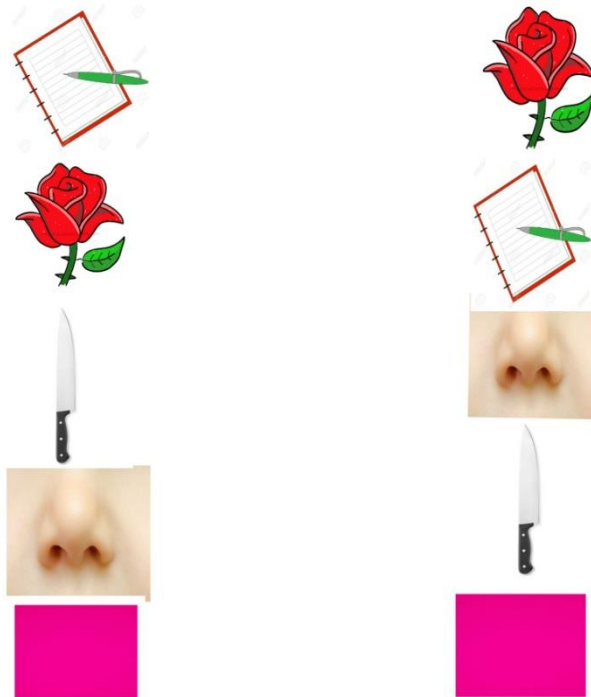


Figure 1.7 : exercise 6 of picture matching

<b>spoon</b>	<b>Fork</b>
<b>Fork</b>	<b>Spoon</b>
<b>knife</b>	<b>Dish</b>
<b>dish</b>	<b>Knife</b>

*Figure 1.8 : exercise 7 of picture matching*

<b>Nose</b>	<b>Eyes</b>
<b>Eyes</b>	<b>Nose</b>
<b>hair</b>	<b>Hair</b>
<b>mouth</b>	<b>Mouth</b>

*Figure 1.9 : exercise 8 of picture matching*



Figure 1.10 :exercice 9 of picture matching

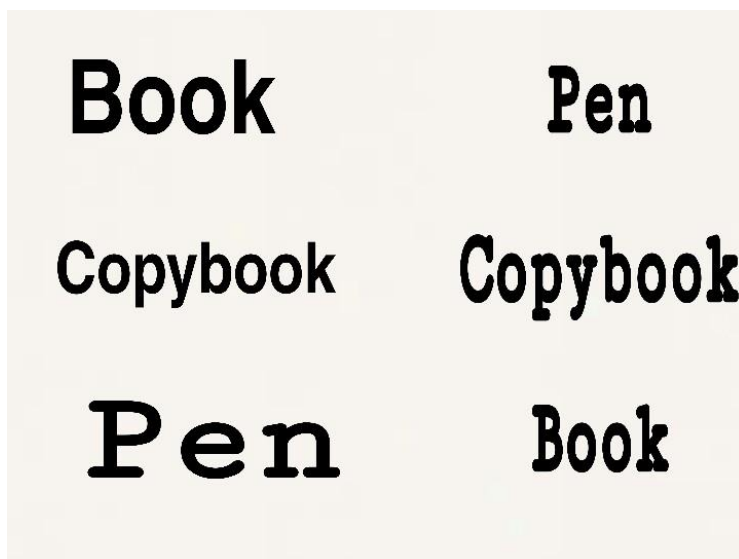


Figure 1.11 : exercice 10 of picture matching

### **1.1.8.2. Worksheet 2 :**

In this worksheet the participant were presented with picture selecting strategy

The aim behind choosing this strategy is that the usage of games that use selecting activities such as pictures is a very successful strategy for training children how to read words and reading comprehension (Daniel Mara& Elena Lucia Mara ,2011,p26).

Also children with down syndrome are considered as visual learners the reason why the researcher rely more on visual support to insure that learning is taken place .

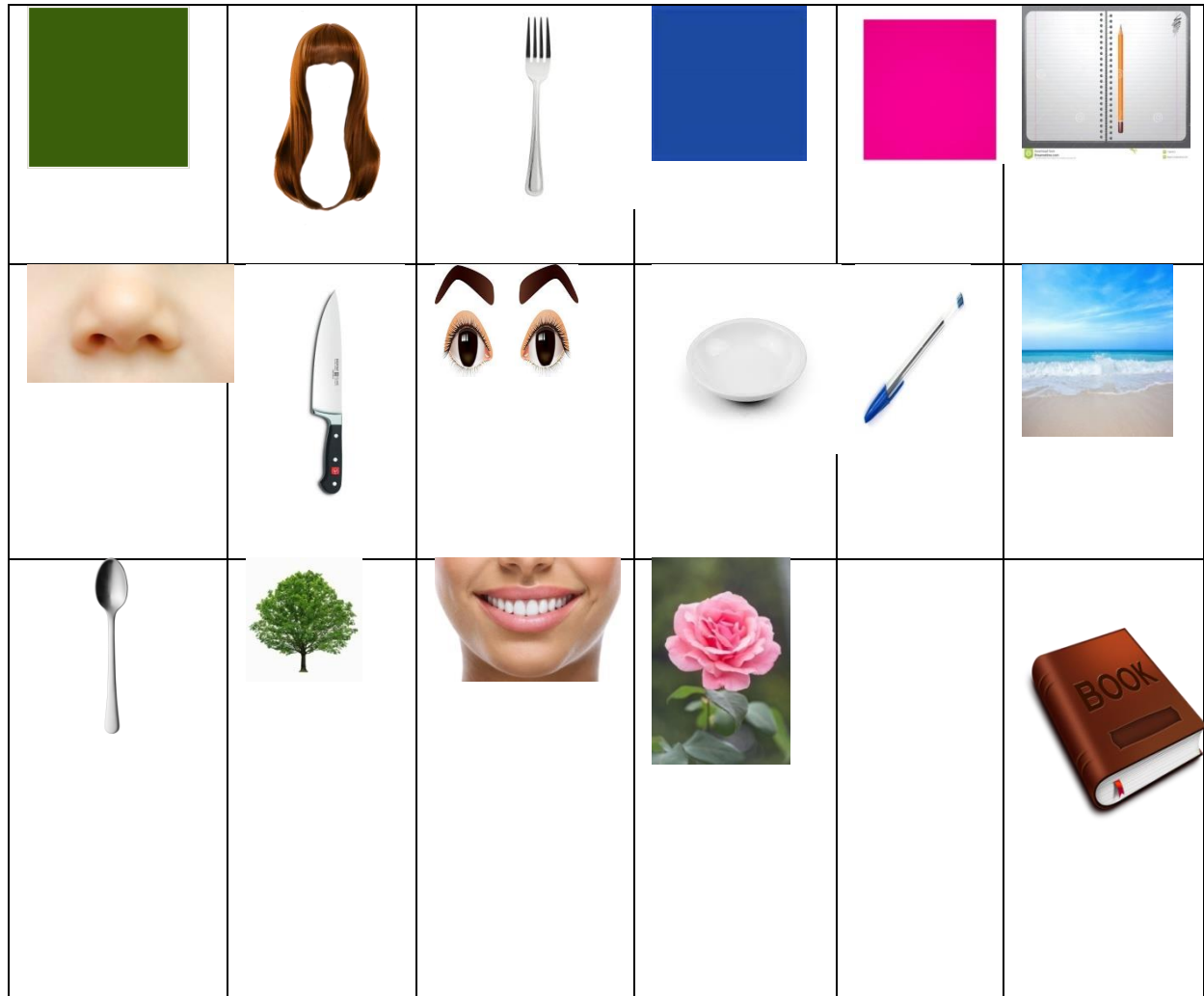
Vila.( 2015 ) wrote on her blog that as DS children have a strong visual memory , they can be taught to read early, because they can understand 50 to 100 words, and can match and select pictures.

The researcher in this worksheet made a game of items and words the child readily responds to, including the five categories from the previous lessons .

The researcher printed a picture of each item from each category then used the pictures to ask the participant to give (or show ) the fork or tree...etc with guiding the participant through the correct response until she can select each picture when it is named . (Hughes 2006 , p.2) See figure10 and 11 (Polo ,2017 ,p.44)

Table 1.7

*exercise 1 of picture selecting*



The 2<sup>nd</sup> exercise in this worksheet is opted to read the selected card .The participant is been exposed to a number of cards , each card has a word from the categories the participant has learnt , and she is expected to read the selected items correctly . (See table 1.8)

Table 1.8

*exercise 2 of picture selecting*

White	Spoon	Sea	copybook	Green	Fork
Knife	Tree	Nose	Mouth	Pink	Book
Pen	Dish	Rose	eyes	Hair	Bleu

### **2.1.8.3. Worksheet 3**

The participant in this worksheet dealt with picture naming strategy .

Picture naming is to ask your child what this is or what this is called by referring to the target item or Show your child the picture and say 'What is this? It's a ..... (cup), can you say

cup? (Hughes ,2006)

The aim behind choosing this strategy is that Picture naming is used as an individual Growth and progress metrics are widely utilized as benchmarks for the advancement of children's language and literacy in pre-school and early elementary service (Missali & McConnell,2004)

Hughes,2006 added that Picture naming encourages word-reading approximations, as practice helps children to make their speech clearer .

### 2.1.9. Homeworks

The participant in this home work were supposed to match each picture with each symbolic representation to confirm that she acquired the written form of each word which means she can read the acquired words whenever she sees them .

The designe of the home work activity is taken from (Polo ,2017 ).

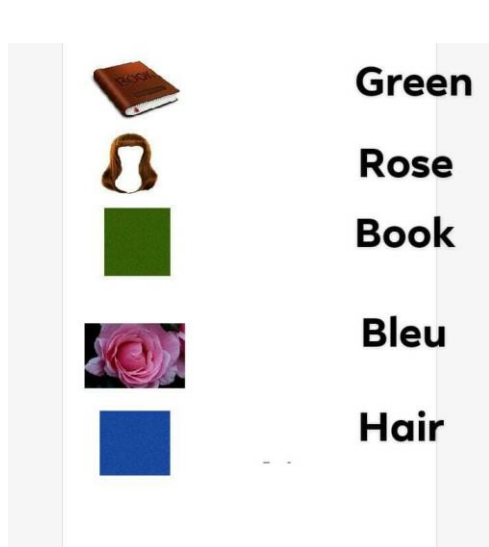


Figure 1.11 : Exercise 1 of the homework

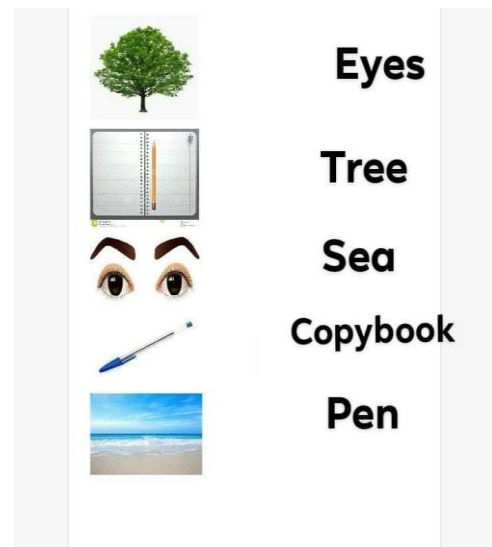


Figure1.12 :Exercise 2 of the homework

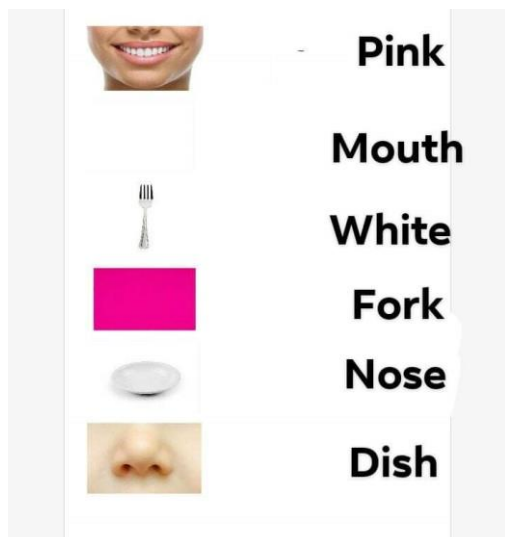


Figure1.13 : Exercise 3 of the homework.



## **2.2. Data Analysis**

This section focuses on the outcomes of the materials used after having the participant completed them. Which also provides an overview of the findings during the observation period. In order to discuss the results a comparison will be provided between the lessons, three worksheets and the exercises and key findings in the rest of the materials will be discussed.

### **2.2.1. Lessons**

In the first lesson the participant found difficulties in the pronunciation and this is related to one of the physical characteristics of DS children is that they have flat and short tongue the reason why they have difficulties in the pronunciation specially when for compound words.

The researcher applied grammar translation method to facilitate the memorization process for the participant, after the participant became familiar with the content given, the researcher used repetition of content to memorise the target material.

For the first category: pen, book and copybook the participant had difficulties in pronouncing and memorizing the word copybook, the caregiver role is guiding the participant through the process until she can pronounce and memorise the material given correctly.

She struggles with the word copybook each time the caregiver asks the participant to repeat the word, but she pronounces it correctly when the caregiver provides the word.

For the second category (kitchen tools) the participant succeeded in memorizing the material (Spoon, knife, fork and dish) yet she has difficulties in pronouncing the /ʃ/ and /k/ in the word dish and fork, instead of pronouncing it |dɪʃ| she pronounces it / |dɪs| the same for

[ fɔ:rk ] she pronounces it [ fɔ:r ] .

The participant showed success in pronouncing and memorizing the items given in the 3rd category (rose , sea , tree) , yet in the 4th category the participant showed reluctance in learning , however the caregiver reinforced her behavior by saying « do it and we will play outside ».

In the last category (colors) the caregiver supported the participant by leading her to the correct answer .

The participant succeeded in memorizing and pronouncing all the items given which are pink , bleu , green and white , the rapid success in this category is related to the previous knowledge the participant has about colors .

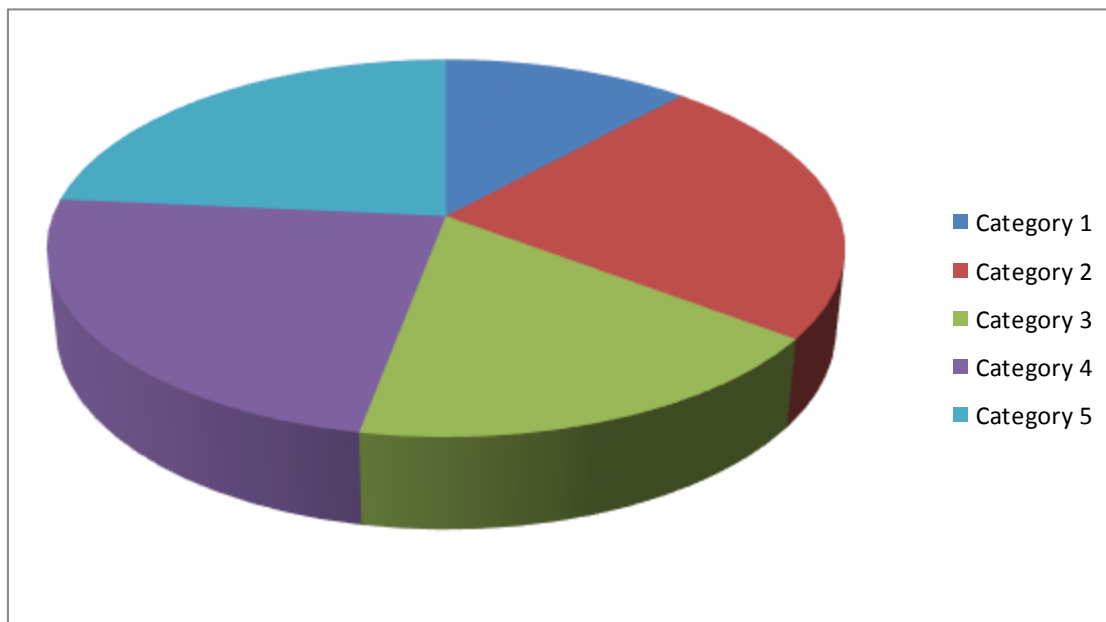


Figure 2.1 : The participant's performance

The results in This figure show the performance of the participant during the 5 sessions , she showed great success because of the high cognitive abilities she has , the only struggle was with the compound words .

The results shown above in figure 20 are similar in terms of success .

Grammar translation method and repetition of content are successful methods to teach DS children memorizing and well pronouncing new material .

The visual support the researcher used in teaching the participant has a great impact in reinforcing the participant's visual memory .

As the participant finished learning the target items from the categories , the overall number of the items were 18 item , the number of the items that have been learned were 16 item , the techniques have been used showed a success of 88.8% because the researcher take advantage of the capabilities of The working Memory of Children With D S .

For the symbolic representation of the material given the researcher preferred to support each item with a draw that symbolizes the word for a better performance and to guarantee memorizing .

The researcher preferred to not respect the order of the categories in this part , rather the content of the categories were represented randomly to insure that the participant is memorizing with understanding and not memorizing the material only visually as it is given .

The participant misselected 4 items : black , tree , bleu , rose , the techniques have been used showed a seccess of 77.7% .compairng the results when the material is given visually using only pictures with when it is given graphically supported with visual aids the researcher found that the participant is able to recall the material given when it is visually represented more than it is graphically represented (see figure 2.2) .

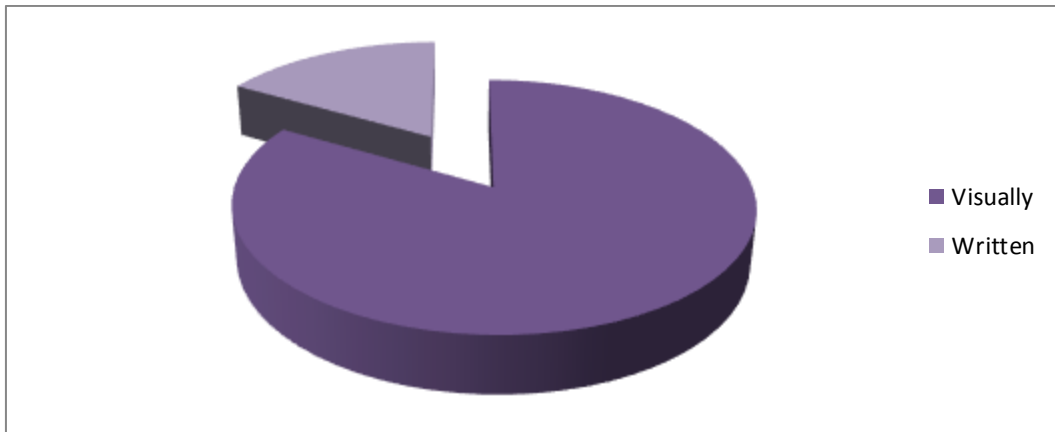


Figure 2.2 : comparison between the two techniques .

Figure 12 show that the participant performance in the used techniques is similar in results due to a common tool used in both techniques which is visual support , the participant seemed to understand better using visual support as pictures rather than using writing because children are drawn to everything that is colorful

## 2.2.2 Worsheets

### 2.2.2.1. Worsheet 1

Table 2.1

*The participant's Worksheet 1 Scores*

Activity	1	2	3	4	5	6	7	8	9	10
Percentage	100%	75%	100%	100%	100%	100%	50%	100%	100%	100%

The data in table 2.1 show the performance of the participant during the exercises , the participant achieved the overall percentage in more than half of the exercises .

8 exercises with the complete score , one exercise with percentage of 75% and other with a percentage of 50%.

The participant had a score of 3/4 in the 2<sup>nd</sup> exercise and a score of 2/4 in the 7<sup>th</sup> exercise .

The researcher in Table 2.1 preferred the usage of percentages rather than scores because the number of items in each exercise are not equal , and this inequality is due to the imbalance in number of items in each category , the decision of using percentages for more accurate results.

### **2.2.2.2. Worksheet 2**

#### **2.2.2.2.1. Activity 1**

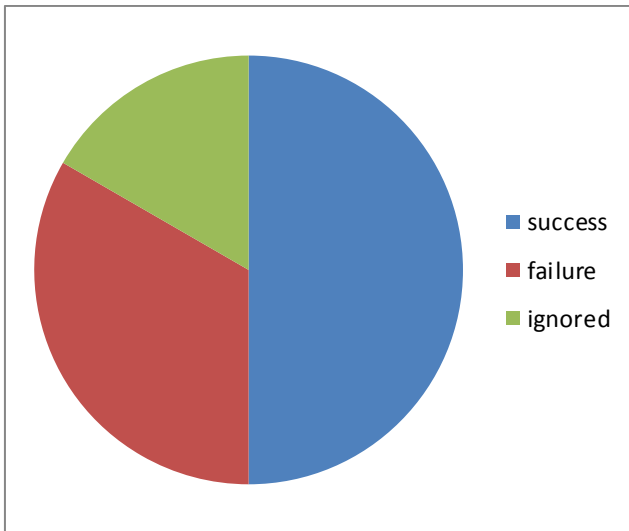
The participant in this worksheet dealt with picture selecting strategy .

The overall number of items in the first activity in this worksheet are 21 items , the participant selected 8 items correctly and failed in 7 items .

The correct items were : hair , mouth , eyes , pen , book , sea , pink , fork , black .

The participant failed in selecting : Spoon , knife , copybook , bleu , rose , tree.

The items the caregiver forgot to mention are : white , dish , nose .



*Figure 2.3 : Participant's activity1 scores .*

The data displayed in figure 14 indicated that the participant showed success in this activity with a percentage of 50% , failure with a percentage of 33.33 , and neglected items by the caregiver 16.6 .

#### **2.2.2.2.2. Activity 2**

The 2<sup>nd</sup> activity in this worksheet is selecting the correct word , it is the symbolic representation of the previous items of the first activity where the participant is supposed to remember how the words are written and reading them .As the first activity , the participant have 18 words to select which are hair , mouth , eyes , pen , book , sea , pink , fork , black , Spoon , knife , copybook , bleu , rose ,tree, white , dish nose .

A total number of items that were done by the participant that the caregiver selected in this activity are 5 : copybook , sea , spoon ,book pink.

Correct answers 3 : copybook , book, spoon.

The participant failed in selecting 2 items : sea and pink .

13 items were neglected in this activity by the caregiver the reason why the participant did not accomplish this activity as it should be accomplished .

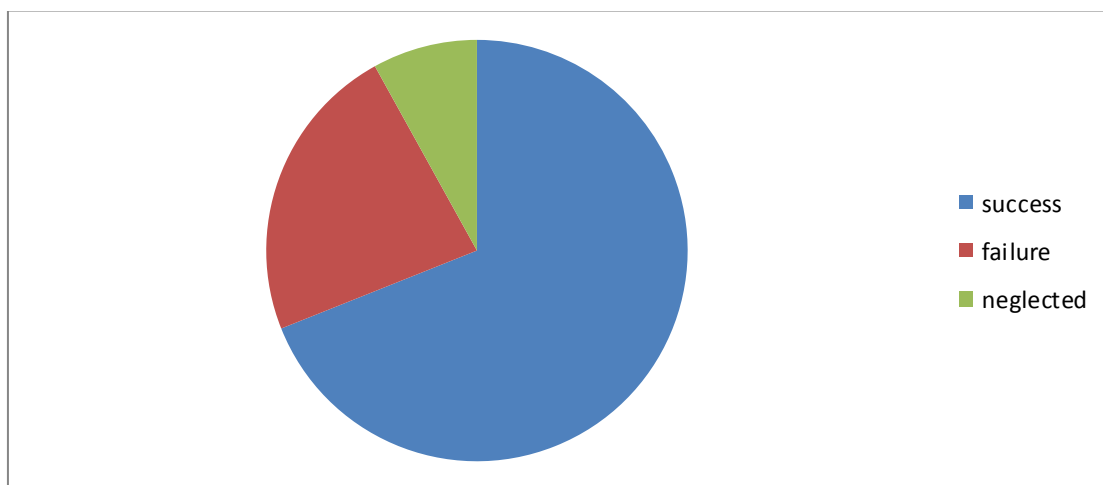
The neglected words in this activity are : hair , mouth , eyes , pen , fork , black , bleu , rose ,tree, white , dish , nose and knife .

### **2.2.2.3. Worksheet 3**

#### **2.2.2.3.1. Activity 1**

The participant in this worksheet dealt with picture naming strategy .

The participant were presented with 18 items and the symbolic representation that represents each item .



*Figure 2.4 : The participant's scores in the 3rd worksheet .*

The grafique showed a pleasant success in the first activity by the participant .

The participant succeeded in naming 12 items which are : white , bleu, knife, fork, eyes, nose, mouth, pen , rose, tree, spoon, hair.

Failed in naming 4 items which are : Pink , book , sea , green .

Neglected items : copybook , dish .

The role of the caregiver is guidance and a facilitator by referring to the target item or Show the participant the picture and say 'What is this? It's a...with pronouncing the first letter of the target item and this facilitates the activity for the participant .

#### **2.2.2.3.2. Activity 2**

The last activity in this worksheet decides if the participant learnt reading single words in EFL or not , yet the caregiver did not accomplish the activity because the participant showed reluctance .

#### **2.2.2.4. Homework**

This homework were given and explained to the participant .The homework were targeting the working memory of the participant if she remembers how the words are written and try to accomplish the activity correctly .

In this homework the participant were supposed to correlate each item with its symbolic representation.

The total number of homeworks done by the participant is one and was given extra time to do the homework activities and still refused to complete them.

Total number of the items in the activity she accomplishe were 5 .

From 5 items the participant had 3 correct answers which are : pen , copybook , tree .

She had a difficulty in words with three letters ( sea , tree , eyes ) as she remembers only how words are shaped , the participant mixes between words that contain the same letters and with the same number of letters .

The homework were scored according to the number of activities done by the participant which is one activity with a 60% success rate .

### **3.3. Findings and Discussion**

The data for this study were collected via 10 sessions divided as next : 5 sessions for the categories , three sessions for the worksheets and two sessions for the homeworks.

The results of each section contributed to answer the research questions presented in the introduction. Consistently, it was found that using visual aids allowed the participant to understand the content and even encouraged the completion of certain tasks in the worksheets.

Additionally, the use of L1 to teach DS children to read in TEFL appears to have been a valuable teaching method. The participant was able to better understand and utter the meaning of the elements by relating them to the L1 equivalent.

As seen in the in the three worksheets and directly observed from the participant , the activities that were motivating were the ones with visual aids (pictures) such as in picture matching activities and all the activities that included pictures were favourable for the participant , and using visual clues to teach content for the participant resulted as good teaching strategy.

In addition, the two research hypotheses have been confirmed by the investigation's findings that children with DS can learn reading in IFL If the lessons continue without a long break from studying so that there is no chance for the participant to forget what she he has learnt and to insure that learning is taken place there is a need to repeat the previous content so that it entrenches in her memory .

In some activities that contain no visual clues such in the second activity of worksheet 2 Table 1.8 exercise 2 of picture selecting , the participant had a low performance because Her absence from the online studying for a long time and the lack of practicing because of the current situation on the one hand , and the reluctance of the participant , and the caregiver being less cooperative in the other hand .

The results of the five sessions answer the second question of the research which is ( Is homeschooling a good teaching technique to teach reading for children with DS ?)

And the findings showed that children with DS need to feel emotionly stable and relaxed in order to focus and study and to avoid reluctance , also to study at any part of the day that they feel comfortable the most in .

Yet , this study does not guarantee that it is the best teaching technique , as no other technique has been tested yet due to the current situation .

As the main goal of this study is to test if children with DS are able to read in EFL there are parts were the participant showed that she can remember how words are written such as in the words (book , copybook , spoon ) because the three of them have Os so she recalls the words whenever she sees them .

If the instructions were done exactly the same as it was given by the researcher to the caregiver to apply them to the participant consecutively without frequent long breaks from practicing the investigation could have an accurate results because the period the participant took between the lessons and the worksheets where the practice part officially started was too long and this long break Caused forgetfulness and this It negatively affected the results .

## **Conclusion**

This chapter presented the methodology adopted by the researcher while conducting the study. It offers an information about the participant , the lessons , the worksheets and the homeworks , also it dealt with both qualitative and quantitative data . The findings showed the effectiveness of the techniques used in teaching the participant .

## **Chapter Three**

### **Implications and Recommendations**

This chapter proposes an efficient implications and recommendations based on the findings uncovered by this study. To suggest solutions to facilitate the acquisition of English vocabulary as a foreign language by young adults with DS and to improve their reading abilities in EFL, the researchers attempted to propose suggestions for individuals with special needs teachers to motivate them and to provide a better learning environment .

#### **3.1. Implications**

The results of this study are of importance for children with DS because it provides a synopsis of children with DS cognitive abilities and their weaknesses and strengths as well as it shows the gaps in the techniques suggested by previous researchers in this field to overcome the difficulties that have been faced in this study . The results are a call for individuals with special needs centers and teachers and an invitation to open the door for further studies to give a serious attention to this segment and to put the subject of reading in EFL for children with DS in the spotlight .

##### **3.1.1. Implications for Children with DS Teachers**

To promote children with DS reading skills, it is fundamental for teachers to take into consideration the cognitive abilities strengths of children with DS that contribute in the acquisition of reading skills in EFL .

### **3.1.1.1. The Use of Visual Support**

Children with DS are considered as visual learners and this has been proven in previous studies , thence , the reliance on visual support has been effective in the process of teaching the contents , as it had demonstrated positive outcomes in the exercises sheets .What improves this suggestion is the negative performance of the participant in the sheets and exercises that did not includ visual support .

### **3.1.1.2. The Use of L1 as a Technique to Teach Reading In EFL to Children with DS**

As the learners had very limited knowledge of English, the usage of L1 as a tool was helpful, because it offered a valuable aid when telling the learners the word's exact meaning .

Also in the field of foreign language ( FL) teaching reading , there seems to be a increasing knowledge of the fact that mother tongue (L1) may play a supporting function for language learners.

### **3.1.1.3. Motivation**

Motivation is a state that energizes, directs and sustains behavior. Motivation involves goals and requires activity. Moreover motivation allows children with DS to focus and thus to feel the Desire to learn since they are known as stubborn learners the reason why there is a need for daily motivation to help DS children focus on the target material .Also reinforcement is needed whenever they show reluctance and Aggressiveness.

## **3.2. Recommendations**

In order to enhance children with DS reading abilities in EFL , a set of recommendations was established based on the results of the worksheets . These recommendations aims to suggest the basis of a successful techniques in teaching children with DS reading in EFL

### **3.2.1. Teaching Single-Words Using Repetition of Content Method**

Learning grammar and syntax are considered as a complicated process compared to the level of cognitive abilities of children with DS and so is reading sentences that obviously would include grammar and syntax, it is considered as a challenging task for both teachers and children with DS, yet learning how to read single words can be achieved easily because it would be supported with visual aid that will present each word, as it is shown in the lessons the researchers had with the participant, also the repetition of each word several times is a successful method for memorizing the word and recall it whenever it is written and read it easily.

- Words accompanied with visual support specially colorful pictures will attract the attention of the children and thus memorization would be guaranteed.
- Recalling what has been taught in previous sessions insure learning for children with DS.

### **3.2.2. Home Schooling**

is usually conducted by a parent, tutor, or an online teacher which is the case of this study where you control the complexity and cost of curriculum and materials, As children with DS do not learn the same way normal children do, also they are considered as sensitive and introverted learners, home schooling is a better way to create teaching methods best suited to how their children learn.

Also many surveys have demonstrated satisfaction at the success of their children at homeschools and it provides the child with emotional stability especially children with special needs because they become aggressive with people they do not know.

Timing also plays an important role , Divide the time into short and multiple periods of the day so that they do not get bored because they lose the ability to absorb the target information when they are bored .

## **Conclusion**

This chapter dealt with presenting the importance of the findings of this study as it tackled a sensitive and special case that combines neurolinguistics , psychology and didactics.

The techniques and the activities were used are designed by professional researchers in this field in the hope of inspiring other researchers to put this subject under the spotlight and do further studies .

However this research encountered some limitations mainly regarding the search of a participant and to convince the caregiver to do the sessions online , it was difficult to find someone ready to sacrifice his time and comfort with no personal gain.

As well as the limited number of sessions and the continuous discontinuation of lessons caused Lethargy the reason why the participant did not want to complete the worksheets .

This research provided a set of suggestions on how to teach children with DS to acquire a 2L in order to pave the way for further studies .

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