PEOPLE'S DEMOCRATIC REPUBLIC OF ALGERIA

University-Mohammed Seddik Ben Yahia of Jijel

Faculty of Letters and Foreign Languages

Department of English Language

The Effect of the Age Factor on Second Language Pronunciation Learning

A Case Study of Fly High Private School Learners

Dissertation Submitted in Partial Fulfillment of the Requirements of the Master Degree in TEFL

Candidate

Mr. Makhlouf BENABDELLIOUA

Supervised by

Dr. Samia AZIEB

Board of Examiners

Chair person: Mrs.Salma BOUHALI	University of jijel
Examiner: Dr. Fateh BOUNAR	University of jijel
Supervisor: Dr. Samia AZIEB	University of jijel

Academic Year: 2018/2019

PEOPLE'S DEMOCRATIC REPUBLIC OF ALGERIA

University-Mohammed Seddik Ben Yahia of Jijel

Faculty of Letters and Foreign Languages

Department of English Language

The Effect of the Age Factor on Second Language Pronunciation Learning

A Case Study of Fly High Private School Learners

Dissertation Submitted in Partial Fulfillment of the Requirements of the Master Degree in TEFL

Candidate

Mr. Makhlouf BENABDELLIOUA

Supervised by

Dr. Samia AZIEB

Board of Examiners

Chair person: Mrs.Salma BOUHALI	University of jijel
Examiner: Dr. Fateh BOUNAR	University of jijel
Supervisor: Dr. Samia AZIEB	University of jijel

Academic Year: 2018/2019

Dedication

I dedicate this work

To My Beloved Mother

Acknowledgements

First and foremost, my deepest gratitude is expressed to “Allah” for giving me strength and courage to keep going regardless of the pitfalls I stumbled across.

I would like to express my deepest gratitude to my supervisor, **Dr. Samia AZIEB** who accompanied me in this long-lasting journey and showered me with wholehearted support, guidance, and constructive comments.

Particular thanks are similarly expressed to **Dr. Fateh BOUNAR** and **Mrs. Salma BOUHALI** for taking the trouble to examine this modest piece of writing.

My thanks are also due to my teacher **Mr. Aissam ABDELLOUCHE**, the head of Fly High School, for his sage pieces of advice, guidance, and unconditional help, especially when this research work was in its infancy. ‘Sir, I run out of words to say’.

A thank you must be given to all the participants who willingly and kindly furnish me with the data required to bring this research work to its end.

Last but not least, I would like to express my heartfelt thanks to my dearest mates and friends for their help and I especially mention **Miss. Assia ZERAOULIA** and **Miss. Souzane BOUFROUA.**

Abstract

The present study tries to shed light on the effect of the age factor on second language pronunciation learning. To meet this objective, and on the basis of the Critical Period Hypothesis, an experiment was conducted on three groups of learners from different ages (n= 42) at Fly High private school of languages. The first group consists of eleven (11) year old learners (before puberty), the second group is composed of thirteen (13) year old learners (age of puberty) and the third group includes fifteen (15) year old (after puberty). The participants were given a pre-test to determine their prior level, and then they had had six sessions on pronunciation learning before they were given a post-test which provided an overall view on the level of improvement for each group. Following a quantitative approach to data collection and analysis, it is hypothesized that Algerian learners may learn better pronunciation if they are exposed to the target language in an early age. The findings of the experiment show that there is a huge gap in terms of improvement from the pre-test between the three groups. The first group shows the highest level of improvement followed by the second group while the third group shows the lowest level. It can be concluded, then, that the younger the learners are, the better and the quicker they attain the pronunciation of the target language.

List of Abbreviations

CPH: **C**ritical **P**eriod **H**ypothesis

EFL: English as a **F**oreign **L**anguage

FDH: **F**undamental **D**ifference **H**ypothesis

HI: **H**earing **I**dentification

L: Language

N: **N**oun

PLA: **P**rimary **L**anguage **A**cquisition

RP: Received **P**ronunciation

RS: **R**eading **S**entences

RW: **R**eading **W**ords

SD: **S**ounds **D**iscrimination

SL: **S**ilent **L**etters

SLA: **S**econd **L**anguage **A**cquisition

SLPL : Second **L**anguage **P**ronunciation **L**earning

Sp: **Sp**eaking

SR: **S**ounds **R**ecognition

TL: **T**arget **L**anguage

V: **V**erb

List of Tables

List of Figures

Table of Content

General Introduction

The need for learning English as an additional language has dramatically increased in the last years. Therefore, a standout amongst the most testing inquiries in second language learning researches is the reason students of a non-native language demonstrate different levels in their last accomplishment in respect to the L2 components and skills they have obtained. Hence, second language researchers drew their attention to determining individual variables that might affect the process of language learning, such as attitude, aptitude, motivation, personality and intelligence among others. However, one of the most evident potential clarifications for the absence of achievement of L2 students, in contrast with L1, is that the learning of a foreign language starts at a later age than that of the first language does. Therefore, it is predominantly expected that age itself is an indicator of second language proficiency. Accordingly, the present investigation examines if there is an impact of age on second language learning in regard to pronunciation attainment of early and late learners.

Statement of the Problem

The issue of age is one of the controversial topics in the study of first language acquisition and second language learning. Many studies have been conducted to see if there is an influence of age on the quality of pronunciation learning. Such studies have been based on many theories especially the Critical Period Hypothesis. As a matter of fact, scant attention has been paid to the effect of age on language learning in general and pronunciation learning in particular. As a result, the issue of age has played a fundamental role in making educational decisions, concerning when second language instructions should be introduced in the formal school setting. Therefore, the researcher attempts to examine whether there is a real impact of age on the attainment of a native pronunciation and to what extent can “the younger the better” be taken as a fact.

Aim of the Study

This paper aims at examining the effect of age on second language pronunciation learning. It mainly assesses the existence of a better age for attaining better pronunciation by Algerian EFL learners.

Significance of the Study

Many studies have been conducted to examine the relationship between age and the acquisition of a native-like pronunciation. However, the previous studies focused mostly on the acquisition by living in the target country and with exposure to the language for a certain period. No clear view has been provided for the appropriate age for learning pronunciation. Therefore, the significance of the present research work lies in its focus on whether there is such thing called better age for pronunciation learning or not. This may help teachers and syllabus designers decide which phonological instructions should be included in each level regarding the age of each.

Research questions

The current research aims at investigating the following research questions:

1) Does age affect second language pronunciation learning?

2) Can the Critical Period Hypothesis be implemented to second language pronunciation learning?

Hypothesis of the Study

In the light of the abovementioned research question, the present study seeks to examine the following main hypothesis:

If Algerian English learners were exposed to the language at an early age, they would learn pronunciation quicker and better.

Structure of the Dissertation

The present study is divided into two main chapters. The first chapter, in two sections, mirrors a theoretical framework; the first section was seized to pronunciation learning. This section provides a general view about pronunciation; its definition, how it is evaluated, the elements of pronunciation, among others. The second section however, contains a literature review about the age factor and how it affects different aspects of language in regard to three significant hypotheses in which age is their focus.

The second chapter, on the other hand, is about the practical part which gives an overview of the field work results that were obtained by involving learners in different tasks to examine their competence and performance in English phonology. It is divided into three sections that are devoted mainly to the methodology of research and data analysis and discussion respectively.

Methodology

To compare the effect of earlier-onset instruction with later-onset instruction on learners' pronunciation development, there was a necessity to access a sample with a group of learners who have a motivation to English learning. Therefore, the researcher had to choose one of the two, either EFL learners who study English as their specialty, or EFL learners in a private school who went mainly asking for English learning. The first was not an option because of the strike that the university was witnessing, so the study was carried out at "Fly High" private school in Taher. The latter is a private school for languages with exclusively Algerian students, and with a focus on developing English language abilities.

Three groups from different ages were selected (n=42). The three groups had a pre-test which included eight tasks on prior knowledge, sounds recognition, hearing identification, sounds discrimination, intonation, sentence reading, word reading and speaking. After the pre-

test, the learners had seven lessons in a seven weeks period where they learned the aspects mentioned earlier. Finally, they had a post-test which is similar to the pre-test. Last but not least, the final results were analyzed and the improvement of the groups was compared.

Chapter One: Literature Review

Introduction

Aiming to determine the cause effect relationship between age and second language pronunciation learning, the first chapter is exclusively concerned with reviewing the major theoretical aspects related to the age factor and its effect on pronunciation learning. Hence, the chapter was divided into two sections. The first section gives an overall for pronunciation; its definition, its two basic elements (segmental and suprasegmental elements) along with the major factors affecting pronunciation learning. The second section however, sheds light on the age factor from a biological point of view, besides a review for the major theories that focus on the effect of age on second language learning namely the fundamental difference hypothesis, cognitive aging hypotheses and the critical period hypothesis. The latter takes a considerable part of the section where it is deeply analyzed because it is considered the basis of the study.

Section One: Pronunciation Learning

Introduction

As it has been mentioned previously, this section provides a review for pronunciation learning including the definition of pronunciation, pronunciation components and pronunciation evaluation. The various factors affecting the process of pronunciation learning are also discussed.

1.1.1 Definition of Pronunciation

Pronunciation has been defined differently by different researchers. In general, pronunciation refers to the way a language is articulated or spoken by its natives in a natural set.

To begin with, Yates and Zielinski (2009) asserted that pronunciation is the manner in which the speaker uses the sounds of the spoken language including vowels, consonants and other aspects beyond those segmental aspects which convey meanings, like stress, intonation and timing. They argued that these aspects cannot be separated though they are addressed in a separate way because together they make it easy to understand what the speaker really means (p. 11).

In a similar vein, Hewings (2004) defined pronunciation as the combination of a set of components like sounds (consonants and vowels), syllables and words, these components together shape the pronunciation of a language. He claimed that those components make up the individual speech and carry his intention depending on another component which is pitch (p. 5).

Fraser (2001) went with the same flow claiming that pronunciation refers to all aspects of articulation including segments, rhythm, intonation and phrasing in addition to the body language and eye contact. She argued that pronunciation is the

most important language aspect in oral communication because of the amount of information it conveys about what the speaker means (p. 6).

Furthermore, Dalton and Seidlhofer (1994) suggested that pronunciation is the production and comprehension of the sound system of the spoken language where meaning is transmitted through correct articulation of segments and aspects beyond them (p. 4).

It is essential to make a clear cut distinction between phonology and pronunciation. As Burgess and Spencer (2000) claimed;

> The phonology of a target language (TL) consists of theory and knowledge about how the sound system of the target language works, including both segmental and supra-segmental features. Pronunciation in language learning, on the other hand, is the practice and meaningful use of the target language phonological features in speaking, supported by practice in interpreting those phonological features in a target language discourse that one hears (pp. 191-192).

From the above definitions, it can be concluded that pronunciation is the representation and production of words, sentences or speech in a comprehensible manner that allows the speaker to negotiate meaning in speech using the foreign language sounds and segments appropriately.

1.1.2 Elements of Pronunciation

The definitions above pointed on two main components of pronunciation which, as Yates and Zielinski (2009) explained, cannot be separated though they are treated in isolation (p. 11). The first element refers to the sounds of the language which stand for segmental features. The second element, however, refers to the abstract aspects beyond segments and which carry meaning and the intention of the speaker. These elements are

called suprasegmental features.

1.1.2.1 Segmental features

The segmental features basically refer to the collection of the language sounds which are distinguished as vowels and consonants and defined as “discrete unit[s] that can be identified, either physically or auditorily, in the stream of speech” (Crystal, 2008, p. 426).

1.1.2.1.1 Vowel Sounds

Roach (1991) defined vowels as the sounds that are articulated with slight or no obstruction of the air stream in the oral tract (p. 10), that is, with open articulation (Brinton, 2000, p. 34). Roach (1991, p. 11) pointed out that there are many vowel sounds in the English language and they differ from each other in accordance to the shape of the lips, along with the position and height of the tongue. When considering the height of the tongue, vowels can be high, mid, or low. As long as the backness (position) of the tongue is considered, vowels can be front, central or back. Last but not least the shape of the lips; vowels can be spread, rounded, or neutral (Roach, 1991, pp. 13-14).

Brinton (2000) added that vowels, unlike consonants, can easily be classified because they do not require many criteria. He justified this by claiming that all vowels are voiced, oral, and they are all pronounced with open approximation. Therefore, he suggested that the classification of vowels requires the consideration of one criterion only which is the place of articulation. The latter can only refer to the position of the tongue (p. 35).

1.1.2.1.1.1 Description of Vowels

English vowel sounds are affected by changing the shape of the lips and the position of the tongue. They can be categorized according to four parameters:

- ✓ The position of the soft palate (raised or lowered)
- ✓ The shape of the lips (rounded, spread or neutral)
- ✓ The position of the tongue (high, low, back, front)

- ✓ The duration the of vowel (long or short)

Brinton (2000) claimed that there are two types of vowels, namely pure vowels and diphthongs. He explained that pure vowels can be recognized by single phonemes unlike diphthongs, which are represented with two characters (p. 36).

1.1.2.1.1.2 Pure Vowels

Pure vowels are divided into two kinds; long and short vowels. When a vowel takes a long time to be produced, it is said to be long. There are five long vowels in the English language and they are characterized by a colon next to the phonetic symbol. These vowels include: /i:/, /ɑ:/, /Ɔ:/, /3:/, and /u:/. Table 1 is in order here (Oxinden & Lathan, 2009, p. 118):

Table 1.1

Long Vowels

Sound	**Description**
/i:/	✓ Close front vowel ✓ Slightly spread lips
/ɑ:/	✓ Open back vowel ✓ Neutral lips
/Ɔ:/	✓ Open-mid back vowel ✓ Rounded lips
/3:/	✓ Open-mid Central vowel ✓ Neutral lips
/u:/	✓ Close-mid back vowel ✓ Moderately rounded

On the other hand, when a vowel takes a short period of time to be articulated, it is said to be a short one. As a matter of fact, there are seven short vowels in English and they are usually represented by the vowels a, i, o, u and e (Blevins, 1996, p. 47). The symbols of these vowel sounds are: /I/, /ə/, /ɒ/, /Λ/, /U/, /e/, and /æ/. These vowels are represented in Table 2 bellow (Oxinden & Lathan, 2009, p.118):

Table 1.2

Short Vowels

Sound	**Description**
/I/	✓ Open front vowel ✓ Slightly spread lips
/ə/	✓ Close-mid central vowel ✓ Neutral lips
/ɒ/	✓ Between Close-mid and close back vowel ✓ Rounded
/Λ/	✓ Close central vowel ✓ Neutral lips
/U/	✓ Close central vowel ✓ Rounded lips
/e/	✓ Close central vowel ✓ Spread lips
/æ/	✓ Close front vowel ✓ Spread lips

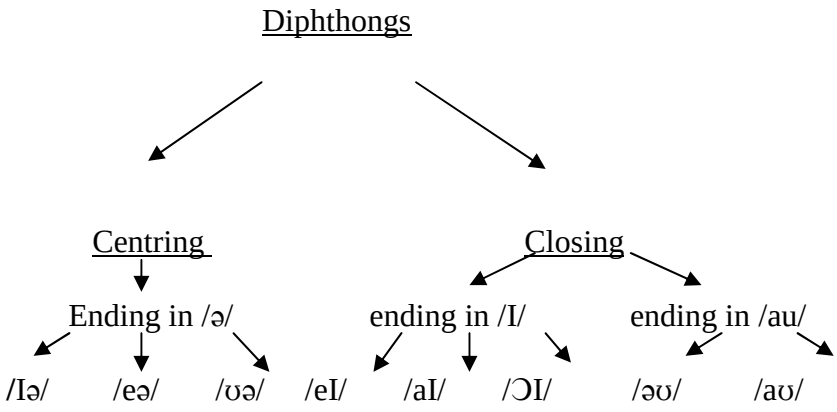
1.1.2.1.1.3 Diphthongs

Cummings (1988) defined diphthongs as the combination of two vowel sounds which eventually become one syllable. “It is like a V.V string which the hiatus represented by the period has been eliminated (p. 301).

Roach (1991) however, defined diphthongs as the sounds that are articulated by moving the tongue from one position to another or the movement from one vowel to another (p. 20). There are eight diphthongs in English. Consider the chart below (Roach, 1991, p. 20):

Figure 1.1

Diphthongs



Centering diphthongs**:** these are glides to the sort of /ə/ sound, found in final positions.

– **/ɪə/** the lips are neutral, with small movement from spread to open. **/ɪə/** glides from **/ɪ/** moving down and back towards **/ə/**. As in: here and idea.

– **/ʊə/** the lips are loosely rounded, becoming neutrally spread. /ʊə/ glides from /ʊ/, moving forward and down towards **/ə/**. As in: pure and poor.

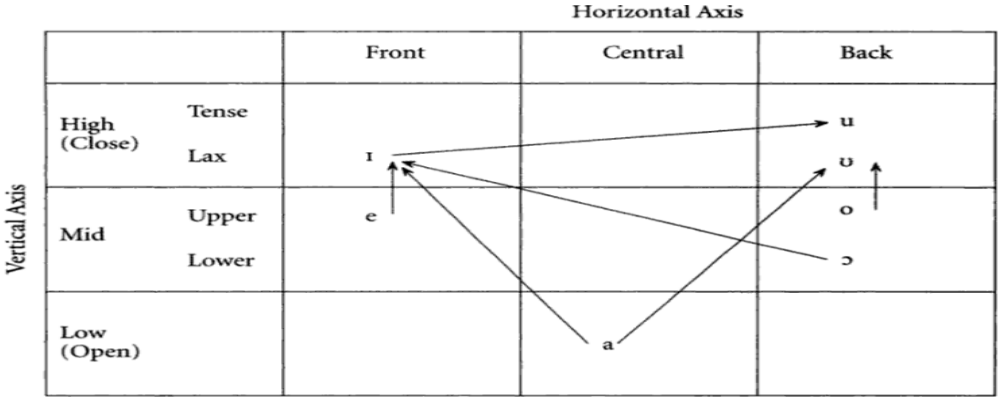
– **/eə/** the lips remain neutrally open, /eə/ glides from /e/ moving back towards **/ə/**. As in: Square and wear.

- Closing diphthongs ending in **/ɪ/:** these diphthongs all end in /ɪ/, gliding smoothly from /e/, /a/, and /ɔ/ and making the sound less loud as the glide progresses.
  - **/eɪ/** the lips are spread and the glide begins in the position of /e/ moving slightly back towards /ɪ/. As in: safe and vein.
  - **/ɔɪ/** the lips are open and rounded then neutral, and the sound glides starting from a position of /ɔ:/ moving up towards /ɪ/. As in: joy and boy.
  - **/aɪ/** the lips are neutral then they move forward to loosely spread. The glide starts in an open position moving up towards /ɪ/. As in: high and eye.
- Closing diphthongs ending in /u/: these two diphthongs all end in /ʊ/, starting from the vowels /**ə/**, and /a/.
  - **/ə**ʊ/ it starts from /ə/ gliding away to /ʊ/, the lips are slightly rounded and the sound gets less loud as it progresses. As in: snow and close.
  - **/a**ʊ/ it starts with /ʌ/ moving up towards /ʊ/, the lips start neutral then they move loosely to rounded. As in: now and row.

The following chart summarizes the articulation of the above diphthongs (Brinton, 2000, p. 40)

Figure 1.2

English Diphthongs Articulation



1.1.2.1.2 Consonant Sounds

From an articulatory perspective, consonants are the speech sounds which are produced by making “a closure or narrowing in the vocal tract so that the air flow is either completely blocked or so restricted” (Crystal, 2008, p. 103).

Iyabode (2011) stated that consonants are characterized and referred to by articulatory terms; that is to say, they are named after the speech organs contributed to articulate a certain consonant (p. 15).

1.1.2.1.2.1 Types of Consonants

As it has been mentioned before, consonants are classified into different types according to their place of articulation, manner of articulation, and voicing.

1.1.2.1.2.2 Place of Articulation

Place of articulation is the place where the obstruction of the air occurs. There are eight places of articulation to produce English consonants.

a. Bilabial: bilabial consonants are those which are pronounced by the interference of the lips, they completely touch each other like in /p/ and /m/, or approach each other like in /w/ (Stockwell & Minkova, 2001, p. 82).

b. Dental: the tip of the tongue articulates with the upper teeth to produce /θ/ and /ð/ (Stockwell & Minkova, 2001, p. 82).

c. Labiodental: the lower lip approaches the upper teeth to produce /f/ and /v/ (Rogers, 2000, p. 194).

d. Alveolar: the tip or the tip and the blade articulate with the alveolar ridge to produce /t/, /d/, /s/, /z/, /l/, /n/ and /r/ (Rogers, 2000, p. 196).

e. Palato Alveolar: the tip or the tip and the blade of the tongue articulate with the alveolar ridge at the time the front of the tongue rises to the hard palate to produce /ʃ/, /tʃ/, /ʒ/ and /dʒ/ (Rogers, 2000, p. 197).

f. Palatel: the front part of the tongue articulates with the hard palate to produce the only consonant /j/ (Stockwell & Minkova, 2001, p. 82).

g. Velar: the back of the tongue articulates with the soft palate to produce /k/, /g/ and /ŋ/ (Stockwell & Minkova, 2001, p. 82).

h. Glottal: A glottal is a sound that is produced without the active use of the tongue and the other parts of the mouth (Yule, 1985, p. 29). The air stream passes through the glottis to produce the only sound /h/.

1.1.2.1.2.3 Manner of Articulation

Manner of articulation refers to the status of the obstruction. Basically, there are six types of consonants namely: plosives, fricatives, affricatives, nasals, laterals, and glides.

a. Plosives

Plosives are often called stops in some phonetics books (O‟‟Connor, 1980, p. 51). Roach (2001) posited that plosives are made when one articulator moves against another so as to hold air firmly. In this way, the air gets compressed behind the stricture. After the air is released, a loud noise is produced because of the pressure. This noise is called “plosion” **(**p. 31). Plosive consonants encompass /p/, /t/, /k/, /b/, /d/ and /g/. Table 3 is a case in point (Oxinden & Lathan, 2009, p. 119):

Table 1.3

Plosive Consonants

Sound	**Usual Spelling**	**But Also**
/P/	p: paper – Poland – sheep pp: opposite – happy	/
/t/	t: time – tell tt: letter – butter	Liked – finished

/k/	c: come – coke k: ski – take ck: back – clock ch: technology – character	/
/b/	b: board – British bb: rubber	/
/d/	d: dog – drink dd: address – middle	/
/g/	g: green – go gg: egg	/

b. Fricatives

Roach (2009) defined fricatives as consonants that are produced with the air escaping through a small passage and makes a hissing sound. Fricatives are continuant consonants, which mean that one can continue making them without an interruption as long as there is enough air in the lungs (p. 48).

The sounds that are classified as fricative consonants include /f/, /v/, /θ/, /ð/, /s/, /z/, /ʃ/, /r/, /h/ and /ʒ/. Consider Table 4 (Oxinden & Lathan, 2009, p. 119):

Table 1.4

Fricative Consonants

Sound	**Usual Spelling**	**But Also**
/f/	f: fifteen – Friday – wife ff: office – difference ph: phone – photo	/
/v/	v: very – vase – TV	Of

/θ/	th: three – thing – Thursday	/
/ð/	th: father – their – lather	/
/s/	s: small – fast ss: stress – actress ci: city ce: nice – ice	/
/z/	z: zero – zebra – brazil s: bags – cars – husband – easy	/
/ʃ/	sh: shop – she tio: information – reservation	Sugar – sure
/r/	r: red – rice rr: terrible – married	/
/h/	h: hello – hi – hungry – how	/
/ʒ/	su: usually – pleasure si: television – revision	Garage – equation

c. Affricates

Affricates are produced when the airstream is blocked somewhere in the mouth; there is almost always some degree of air turbulence and hence a friction at the release of the stop occurs (Clark & Yallop, 1995, p. 67). To make an affricate, two operations occur; initially the airstream gets blocked and then the tongue slowly moves away to cause a slight narrow passage for the air to make /tʃ/ and /dʒ/ (Maiden, 2014, p. 32). Table 5 is in order here (Oxinden & Lathan, 2009, p. 119):

Table 1.5

Affricative Consonants

Sound	Usual Spelling	But Also
/dʒ/	j: Japan – juice dge: bridge – edge – fridge	gym – page – garage
/tʃ/	ch: children – lunch tch: watch – match t+ure: picture – vulture	/

d. Nasal consonants

Nasals are consonants in which the velum is lowered and there is a closure in the oral cavity somewhere in front of the velic opening. Hence, air from the lungs is directed out through the nasal passage alone (Ladefoged & Maddieson, 1996, p. 102).

Nasals are a little like plosives. However, as Kanneth (2000) explained, nasals are produced when the soft palate is lowered to close the oral cavity and allows it to go out through the nasal cavity (p. 487). The consonants that introduce nasals are /m/, /n/ and /ŋ/ and they are demonstrated in table 6 below (Oxinden & Lathan, 2009, p. 119):

Table 1.6

Nasal Consonants

Sound	Usual Spelling	But Also
/m/	m: mountain – Monday mm: summer – swimming	/
/n/	n: nine – never – men nn: sunny – dinner	/
/ŋ/	ng: thing – single – going nk: think – ink – flunk	/

e. Laterals

A lateral consonant is produced when the sides of the tongue are dropped down and the tip of the tongue is raised to the upper teeth (Stevens, 2000, p. 543).

Carr (2012) made a distinction between clear /l/ which occurs immediately before vowels and dark /l/ which occurs immediately after vowels. A clear /l/-sound is a lateral sound in which the back of the tongue is slopped downward, whereas a dark /ɬ/ sound is a lateral sound in which the back of the tongue is raised. For instance in the word “look”, the /l/ sound is heard clearer than in the word “middle”. So, the /l/ sound in the word “look” is called clear /l/, and in the word “middle” is called dark /ɬ/ (p. 35). Table 6 demonstrates the two laterals (Oxinden & Lathan, 2009, p. 119).

Table 1.7

Lateral Consonants

Sound	**Usual Spelling**	**But Also**
/l/	l+vowel: light – believe	/
/ɬ/	l: milk – walk – well	/

f. Glides (approximants)

Jkielshi and Gildersleeve (2018) defined approximants as sounds that are produced when two articulators move close to each other, however not close enough to stop the air or cause a friction. Approximants are /j/ and /w/. Approximants are often called semi vowels because, unlike the other consonants, they are made without a restriction of the airflow (p. 46). Glides are demonstrated in the following table (Oxinden & Lathan, 2009, p. 119):

Table 1.8

Glide Consonants

Sound	**Usual Spelling**	**But Also**
/w/	w: watch – weather – flower	one
/j/	y: yellow – your – yes	student – university

1.1.2.1.2.4 Voicing

After the place and the manner of articulation which differentiate consonants from each other, there is a third way to distinguish between them which is voicing. Consonant sounds can be considered as voiced or voiceless when taking into account the position of the vocal folds. Voiced speech sounds are produced with a vibration of the vocal folds that are brought to contact as opposed to the voiceless sounds (Jones, 2006, p. 548).

Voicing can best be understood through comparing between pairs of sounds which have the same place and manner of articulation; however, they differ in terms of voicing since one is voiced and the other is voiceless.

Among all the plosives, the fricatives, and the affricates that have been discussed, there are pairs of voiced and voiceless consonants. Nasals, laterals, and approximants are all voiced.

The following tables suggested by Avery and Ehrlich (1992, p. 25) display the voiced and voiceless sounds.

Table 1.9

Voiced and Voiceless Fricatives

	Labiodental	Interdental	Alveolar	Alveopalatal
Voiceless	f(fish)	θ(think)	s(sale)	ʃ(pressure)
Voiced	v(veal)	ð (these)	z(zone)	ʒ(pleasure)

Table 1.10

Voiced and Voiceless Plosives

	Bilabial	Alveolar	Velar
Voiceless	p(pay)	t(tell)	k(coal)
Voiced	b(buy)	d(dent)	g(gold)

Table 1.11

Voiced and Voiceless Affricates

	Alveopalatal
Voiceless	tʃ(chug)
Voiced	dʒ(jug)

1.1.2.2 Suprasegmental Features

In previous definitions, it has been clarified that suprasegmental features are those pronunciation aspects beyond segments. It has been mentioned that suprasegmantals are essential in speech because they carry meaning and intention of the speaker. Brinton (2000, p. 57) added that suprasegmental features are those elements that are formed by more than one segment (vowel, consonant) namely stress and intonation. Chun (2002, p. 3) also agree on the fact that suprasegmental features are formed by segmental features which function as sequences that are ranged together to make an utterance.

In deciding on the essential suprasegmental elements that should be considered, Roach (2001) claimed that these features are seen as properties of pieces of speech which can be as long as one syllable. He clarified that the most important suprasegmental features are pitch, loudness, and voice quality. However, the study of these features revealed on two basic features namely stress and intonation (p. 30).

1.1.2.2.1 Stress

Stress is the relative emphasis that may be given to certain syllables in a word. It refers to the degree of force with which a speaker pronounces a syllable or a word. It is almost certain true that in all languages, some syllables are in some sense stronger than other syllables; these are syllables that have the potential to be described as stress. Roach (2001) defined stress as the process of making sounds stronger and he pointed out that this stress effects the manning of the words and may change their category (pp. 30-31).

Brinton (2000) claimed that stress happens with a rising in air pressure with an increase in the respiratory muscles which helps more air to go out of the lungs during the pronunciation of the stressed syllable (p. 57).

1.1.2.2.1.1 Factors of stress placement

As previously stated, stress refers to high degree of force given to a certain syllable which makes it clearer to the listener. However, the question is: what defines this force? The following factors give an emphasis on the way stressed syllables are articulated (Wells, 2006, p. 3).

- ✓ Loudness: stressed syllables seem o be louder to the listener's ear than unstressed ones.
- ✓ Duration or length: stressed syllables are longer than unstressed ones and take more time.
- ✓ Vowel quality: stress syllables mostly have strong vowels /e, æ, ɒ, i: , ɔ: , ɜ: , əu, aI , au/ whereas the weak vowels /ə, I ,u / are frequently unstressed.
- ✓ Pitch of the voice: it is the most efficient factor for recognizing the prominence of stressed syllables, in which stressed syllable is pronounced with a higher pitch than unstressed ones (Cruttenden, 1997, pp. 2-4).

1.1.2.2.1.2 Levels of stress

Stress can be classified into three kinds, namely; strong or primary stress, medium or

secondary stress, and weak or no stress (Roach, 1991, pp. 85-86). Some descriptions of language divide stress into mainly two levels; stressed and unstressed, however others use more. In English, one can argue that if one takes the word 'indicator' as an example, the first syllable is the most strongly stressed, the third syllable is the next most strongly stressed and the second and the fourth syllables are weakly stressed, or unstressed (Jones, 2006, p. 482). This gives three levels; primary stress, secondary stress and unstressed.

- 1st level: The primary stress: it is the strongest type of stress, that is, the longest, the loudest and the highest in pitch.
- 2nd level: Secondary stress: it is weaker than the primary stress in prominence (without pitch).
- 3rd level: Unstressed or Zero stress: which is the absence of stress and it can be found in weak syllables.

Aren & Taha (2014, p. 7) gave other sorts levels of stress. They claimed that there are three main levels; lexical level where stress on multi syllabic words could be on one or more syllables, sentential level where only important words are stressed and last but not least, contrastive level where words with important positions are stressed.

1.1.2.2.1.3 Placement of Stress within the Word

To decide on stress placement in a word, it is necessary to understand some essential information about that word (Roach, 1991, pp 88-90).

- ✓ Is the word morphologically simple or complex depending on the existence of one or more affixes or being a compound word.
- ✓ The grammatical category that the word belong to (noun, verb, adjective, adverb).
- ✓ The number of syllables in the word.
- ✓ The phonological structure of those syllables.

Since there are no firm rules regarding the placement of stress, and because there are always exceptions, words should be learned with their stress. However, there are still some common points to take into consideration when placing stress considering the above instructions.

- A word of one syllable has stress on the first letter. ‘hot, ‘go, ‘long, ‘teach
- A word of two syllable :

a. A noun of two syllables has stress on the first syllable :'en/glish , 'fa/ther , 'teach/er.

b. An adjective of two syllables has stress on the first syllable: 'Hap/py , 'sun/ny.

c. An adverb or a preposition of the two syllables has stress on the first syllable: 'un/der.

d. A verb of two syllable has stress on the second syllable : 'cor/rect, 'pre/sent.

- A compound noun (noun1+noun2) takes stress on the first noun : 'lady –bird.
- A compound noun ADJ + N takes stress on the adjective (adj): 'black-board.
- A compound adjective = ADJ+ V takes stress on the verb: well-'done, old- 'fashioned.
- A compound verb = preposition + v takes stress on the verb: Under-'stand , over-'do.
- A word that ends with one of these five (5) endings (ic, sion, tion, ive, ant) takes stress on the second syllable from the end.

Examples:

ic : Graph/ic - ma/gic - me/chan/ic

sion: Vi/sion - di/vi/sion - con/clu/sion

tion: In/tro/duc/tion - si/tu/a/tion - in/ten/tion.

ive: Ex/pens/ive - ef/fect/ive - com/puls/ive

ant: Im/por/tant - re/sis/tant - as/sis/tant .

- A word that ends with one of these fifteen endings (cy, ty, phy, gy, al, er, ful, less, ous, fy, ible, able, ist, ize, ness takes stress on the third syllable from end.

Examples:

ty: uni/ver/si/ty - sim/i/lar/i/ty - re/al/i/ty .

phy: Phi/los/o/phy - pho /tog/ra/phy .

gy: Ge/ol/o/gy - tech/nol/o/gy - bi/ol/o/gy.

al : Phys/i/cal - man/u/al - me/chan/i/cal

er: Pho/tog/ra/pher - ki/lo/me/ter - car/pen/ter.

ful: Beau/ti/ful - plen/ti/ful - col/our/less .

ous: Dan/ger/ous - mar/vel/lous.

fy: Sim/pli/fy - rec/ti/fy - fal/si/fy.

ible: Hor/ri/ble - cre/di/ble - in/cre/di/ble.

able: Re/spect/a/ble - ca/pa/ble - de/pend/a/ble.

ist: Jour/nal/ist - sci/en/tist - phys/is/ist.

less/ ness: Help/less/ness - care/less/ness .

ize: Civ/i/lize - so/siol/ize - ang/li/cize .

1.1.2.2.2 Intonation

Intonation is the melody, the rising and falling of pitch and the rhythm that the speaker uses to convey linguistic and pragmatic meaning (Wells, 2006, p. 1).

A comprehensive definition of intonation was provided by Levis (1999, p. 37), who stated that intonation is "the quality of language that includes both rhythm and melody, and is produced by tonal height and depth along with stress, volume and varying length of pause."

For Cruttenden (1997, p. 7), intonation involves the occurrence of recurring speech patterns, each of which is used with a set of relatively consistent meanings, either on single words or on groups of words of varying length.

In other words, Intonation is about how we say things, rather than what we say, the way the voice rises and falls when speaking, in other words the music of the language.

1.1.2.2.2.1 Types of Intonation

There are two basic patterns of intonation in English: falling intonation and rising intonation. In the following examples, a downward arrow (↘) indicates a fall in intonation and an upward arrow (↗) indicates a rise in intonation.

a. Falling Intonation (↘)

Falling intonation is the most common intonation pattern in English. It is commonly found in statements, commands, wh-questions (information questions), confirmatory question tags and exclamations.

- ✓ Statements: Nice to meet ↘you.
- ✓ Commands: Write your name ↘here.
- ✓ W-h questions: What country do you come ↘from?
- ✓ Question tags that are statements requesting confirmation rather than questions: He thinks he's so clever, doesn't ↘he?
- ✓ Exclamations: How nice of ↘ you!

b. Rising Intonation (↗)

Rising intonation invites the speaker to continue talking. It is normally used with yes/no questions, and question tags that are real questions.

- ✓ Yes/no Questions: Do you like your new ↗ teacher?
- ✓ Questions tags that show uncertainty and require an answer (real questions): We've met already, ↗ haven't we?

c. Rise-Fall Intonation (↗↘)

Sometimes, a combination of rising and falling intonation is used in the same sentence. The combination is called Rise-Fall or Fall-Rise intonation. It is used for choices, lists, unfinished thoughts and conditional sentences.

- ✓ Choices (alternative questions): Are you having ↗ soup or ↘ salad?
- ✓ Lists (rising, rising, rising, falling); Intonation falls on the last item to show that the list is finished: We've got ↗ apples, pears, bananas and ↘ oranges
- ✓ Unfinished thoughts (partial statements): Do you like my new handbag? Well the ↗leather is ↘ nice... (but I don't like it.)
- ✓ Conditional sentences (The tone rises in the first clause and falls gradually in the second clause.): If he ↗ calls, ask him to leave a ↘ message.

d. Fall-Rise Intonation (↘↗)

The voice falls and rises usually within one word.

The main function of fall-rise intonation is to show that the speaker is not certain of the answer they are giving to a question, or is reluctant to reply.

a. Hesitation/reluctance: So you'd be willing to confirm that? ...Well ... I ↘sup↗pose so ...

1.1.3 Evaluation of Pronunciation

Many teachers and syllabus designers face serious problems in developing tests that mainly serve pronunciation learning, unlike grammar and vocabulary. Checking the individual sounds that students can pronounce was common in the audio-lingual method but now there is a greater focus on the issue of speaking and listening. Many scholars agreed that much time should not be devoted to pronunciation learning because they found that very few adolescents could achieve perfect pronunciation even after much training (Arena, 1990, p. 67).

This view does not mean that pronunciation is not important. Kang and Ginther (2017) viewed pronunciation as an essential part in the assessment of the oral skill (p. 1). Furthermore, as it is well known, incorrect pronunciation of some words may lead to misunderstanding; however, the evaluation of this aspect should be combined to the other

aspects of language.

As long as pronunciation testing is considered, Richards (2015) revealed on two main approaches for the process, namely atomistic and holistic view. The former stands for individual sounds testing and the tasks used in measuring their performance which are often scored as either correct or incorrect. The latter (holistic) however, “focuses on the overall impression of the speakers production” (p. 361).

Richards (2015) distinguished two types of tasks for pronunciation assessment; recognition tasks and production tasks. The former tests the recognition of individual sounds features, sounds discrimination and hearing identification and the latter tests the learners’ oral production through speaking tasks and reading aloud (p. 360).

1.1.4 Factors Effecting Pronunciation Learning

External variables and individual learners’ characteristics have a huge effect on the attainment of a native like pronunciation (Szyszka, 2017, p. 17). External variables refer to the learning environment surrounding the learning process, while learner’s variables refer to the learner himself, physiological and psychological factors that differentiate a learner from another. The following factors are the most common which affect language learning in general and pronunciation in particular.

1.1.4.1 Exposure to the Target Language

Many people find it difficult to learn a new language, mainly because they do not have someone to use the language with. In other words, they do not have enough exposure to the target language. Therefore, this exposure is a crucial factor effecting pronunciation learning. “learners acquire language primarily from the input they receive, and they must receive large amount of input before they are required to speak” (Celce-Murcia et al., 1996, pp. 16-17). This exposure, as Reiters (2018) added, can occur through studying abroad, media exposure and English medium instruction (p. 345).

1.1.4.2 Phonetic Ability (Aptitude)

Phonetic ability is one of the individual variations, because it distinguishes one individual from another. As Kenworthy (1987) explained, some learners can be better than others in discriminating between sounds (p. 6). Language aptitude encompasses four traits namely, phonetic coding ability, grammatical sensitivity, inductive language learning ability and memory (Caroll 1981) (as cited in Kenworthy, 1987, pp. 6-7). Therefore, phonetic ability refers to the ability of the learners to identify different phonological items in the target language and use them in a way that makes them sound like natives.

1.1.4.3 Motivation and Attitude

Unlike the other aspects of language, pronunciation requires a high motivation to the language because learners consider it as a sub-skill which does not deserve to be considered.

Motivation for learning, as Shafaei (2010) explained, is the link between the learner and his goals (p. 25). There is a considerable relationship between motivation and attitude. “In many studies of attitude and motivation in language learning, it has been shown that those learners who show positive feelings towards the speakers of the new language tend to develop more accurate, native-like accents.” This happens because learners demonstrate *integrative motivation,* which means that they are “willing to be integrated into the new speech Community” and “are genuinely interested both in the speakers and in their culture” (Kenworthy, 1987, p. 8) (as cited in Modesti, 2016, p. 15).

1.1.4.4 The Native Language

The mother tongue is very influential in terms of pronunciation learning. If the pronunciation features of the native language (segmental and suprasegmantal) are close to those of the target language, this will simplify the process of learning and make it more valuable and the other way, if those items of one’s native language are different from the those of the target language, then the learning process will be much more difficult and the

attainment of a native like pronunciation will be impossible. This is because children during their developmental stages get rid of those segmental aspects that do not exist in their mother tongue, and so their vocal tract is trained to articulate those native segments only. In the topic of native language effect on pronunciation learning, two aspects are recognized; foreign accent which Avery and Ehrilich (1987) defined as the speaking of the language in a different way from natives (p. 9). The other aspect is the so called cross-linguistic transfer which is the process of transferring what one knows about his native language to the target language (Cook, 2008, p. 76). Under the fact that the examiner is a native Jijilian dialect speaker, the best example can be provided for this issue is the Jijilian dialect and its effect on the pronunciation of “th”. Jijilian dialect speakers misarticulate the /θ/ and /ð/ sounds. This caused a huge difficulty in remembering the correct pronunciation and sometimes even serious difficulty in articulating them correctly.

1.1.4.5 Age

The most important biological factor effecting pronunciation learning is age. Many researchers have claimed that young learners (those before puberty) have more chances than those older ones in the attainment of second language pronunciation. However, other researchers have found that it is hard to confirm this view of the advantage of young learners over old ones. The first initiator to the issue of age was Lenneberg (1967). He proposed the Critical Period Hypothesis which focuses on the physiological changes at the age of puberty and that this period is a turning point in the age of the child because after this period, his chances in the acquisition of a second language decline (Szyszba, 2017, p. 19). However, Pawlak (2009, p. 338) made a distinction between the two terms, Critical Period and Sensitive Period. The former claims that there is a sudden decline in language acquisition, whereas the latter is known as “the innate capacity” which does not suddenly disappear but gradually declines with age (as cited in Szyszba, 2017, p. 19).

Many scholars agreed on the fact that pronunciation acquisition is rare, if not impossible, after puberty because the brain loses its plasticity. Scovel (1988) implied that "this period also involves the loss of neuro-muscular flexibility that locates pronunciation among linguistic abilities strongly affected by a critical period".

Section Two: The Age Factor

Introduction

Everybody these days has a perspective about the impact of age on learning a language. Most educators and caretakers rely on the idea that younger means better in the field of L2 learning. It is trusted that children will learn, in a progressively effective manner, how to articulate and obtain more extensive vocabulary if they are presented to the language sooner. On the other hand, a few instructors and students feel that this has nothing to do with age, and that they can gain proficiency with any language if they have the right motivation and enough exposure to the target language paying little mind to the period of exposure. Along these lines, this section deals with the age impact to affirm if the mainstream views are valid or not in respect to learning a L2 pronunciation. The section starts with stating the rationale behind the selection of the age factor. Then, it moves to give an overview for the different hypotheses that dealt with age. Last but not least, the section tries to shed light on the major advantages of young learners over old ones.

1.2.1 Why the Age Factor

Over the most recent years, age has been the focal point of focus for many researchers. Their studies helped a big deal in the understanding of language capacity that humans possess. Yet, at the same time, there are still things to make sense of. These examinations helped a major deal in the comprehension of language limit that people have and besides, the aftereffects of examination are exceptionally valuable for instructive purposes.

The conflict argument of “the younger, the better” and “the older, the better” still remains controversial. However, one thing which is certain is that when it comes to acquiring pronunciation, children often show much better performance than adults (Nikolov, 2009, p. 161).

1.2.2 Theories of Why Age Affects L2 Learning

Many theories have been introduced by different scholars, explaining how age affects language learning in general and pronunciation attainment in particular. The following theories tried to reveal the facts behind such effect in a scientific manner.

1.2.2.1 The Fundamental Difference Hypothesis

The Fundamental Difference Hypothesis (FDH) was first proposed by Bley-Vroman (1989). It suggests that second language learning, unlike first language acquisition, does not follow the Universal Grammar view in the sense that what happens in child language acquisition is not the same as that which happens in adults' second language acquisition (Grass & Selinker, 2009, p. 174). The fundamental difference hypothesis is not about the notion that there is a difference between child and adult language acquisition only but it seeks to understand where those differences reside. It claims that the nature of difference is internal, linguistic, and qualitative. First, the internal nature refers to the internal cognitive state differences between adults and children. Regarding linguistic differences, they stand for the differences in language specialty rather than learning ability. Finally, the qualitative difference is the difference in language quality between children' first language acquisition and adults' second language learning (Grass & Selinker, 1989, p. 50). Hence, the general idea of the Fundamental Difference Hypothesis is that the way children learning their L1 is different from that of adults learning the L2 and therefore they need to adopt a new way to learn that L2 because they do not have access to Universal Grammar anymore (Loewen & Reinders, 2011, p. 74).

1.2.2.2 Cognitive Aging Hypotheses

There are many hypotheses that have been formulated on the basis of the idea that the brain goes through major changes with aging. These changes have negative consequences on cognitive processing.

First and foremost, the psycholinguistic point of view supports the general slowing hypothesis. The latter claims that there is a general slowing in a variety of cognitive functions through aging. Lexical skills' studies revealed that the mental lexicon keeps on growing with age. However, a general increase in grammatical difficulties characterizing the linguistic production was marked on older learners. The latter is associated with a general cognitive decline affecting short-term memory and working memory. Regarding memory, the Inhibition Deficit Hypothesis states that young learners experience an automatization in the articulatory sequences necessary to produce the target phones because they have the ability to transfer them to the procedural memory, so that they do not need to think about all the articulatory movements required by the process of speaking. This advantage cannot be found in older learners and this is due to a remarkable decline in all types of memory (Wright, 2016, pp. 59-70).

Last but not least, the neurolinguistic point of view supports the hypothesis of neural changes which states that, through the lifespan, neural changes occur. Studies on the neurolinguistic field have revealed on a reduced activation in some aspects including message production and lexical retrieval and a general atrophy in neural networks implicated in lexical access (Wright, 2016, p. 71).

1.2.2.3 Critical Period Hypothesis (CPH)

The Critical Period Hypothesis (CPH) for language acquisition was first proposed by the neurologists Penfield and Roberts (1959) and later popularized by Lenneberg (1967) (Josue,

2008, p. 520). The original CPH was for primary language acquisition (PLA-CPH) and then extended to second language acquisition SLA-CPH. Lenneberg was trying to find a cure for aphasia, and he was particularly inspired by the organic factor of language learning. He proposed that language learning capacities declined with the hemispheric lateralization of the mind, which was accepted to start around adolescence. He suggested that language was the result of the mind so the advancement of language capacity was carefully confined by the physiological premise of an individual (Lenneberg, 1967) (as cited in Diaz, 2016, p. 10). Johnson and Newport's (1989) findings are the best proof that supports the idea of the existence of a critical period for second language learning. As a result of their studies on critical period effects in learning languages, they concluded that the existence of a critical period for language learning has to be a fact. During that period, learning languages is in its easiest stage. However, when the child enters adolescence, his brain becomes mature enough but no longer flexible to learn languages. Hence, many researchers are trying to find out whether or not there exists a critical period for second language learning and if yes, how they can trace it (as cited in Deng & Zhu, 2016, p. 117). This theory has in this manner come to be known as the Critical Period Hypothesis (CPH), claiming that at some specific stage in individuals' lives they could procure a language quicker and simpler in a regular progress where there is no outside mediation and there are no individuals to instruct (Fromkin, Rodman, & Hyams, 1983, p. 67).

1.2.2.3.1 Critical Period Hypothesis Segments

The Critical Period Hypothesis has a few segments that can be recognized: an onset, a terminus, an intrinsic component, an extrinsic component, and a system which is affected by stimulation (Herschensohn, 2007, p. 10). These terms will be chiefly clarified under the light of Lenneberg. First, the onset of the CPH is the time when it begins. Lenneberg stated that

there is a specific maturational schedule that is distinguished by the existence of some capacities that occur around the age of two or three (Ibid, p. 10). As for terminus, Lenneberg suggested that the end of the critical period can be traced to the age of thirteen or by the beginning of puberty. At this specific time, learners experience a sudden decline in the capacities mentioned in the onset, what paralyses their ability to learn a second language (Herschensohn, 2007, p. 11). The closing of the critical period has to do also with UG. As the Fundamental Difference hypothesis suggests, children after puberty cannot access Universal Grammar (Grass & Selinker, 1989, p. 174). The third components that characterize the Critical Period Hypothesis are intrinsic and extrinsic components. The intrinsic component refers to the innate mechanisms that the child possesses for language learning. The latter came as a reaction to the behavioristic view for language learning and which links learning to the notion of stimulus response. However, Lenneberg did not give a clear definition to the extrinsic component for that he was trying to falsify the behaviouristic view. Last but not least, the affected system refers to the language components affected by the terminus of the critical period, but again, Lenneberg did not specify which component affected phonology, lexicon, or syntax, or which is the most affected one. The most important thing is: Is there a critical period for each element or are they all treated equally? (Morillas, 2011, p .11).

1.2.2.3.2 Biological Explanations

As it has been clarified by Jdynak (2009), to understand why age effects pronunciation attainment, it is necessary to have an overview on the brain anatomy:

> The human brain consists of nerve cells called neurons which develop extensions from the cell body (soma). These extensions become longer with time and from two types of brunches (processes) namely axons and dendrites. Axons are responsible for carrying impulses

> away from the sell (the only output system) and are covered by myelin whose destruction results in multiple sclerosis. Dendrites in turn, carry impulses to the cell (multui-channel input system). Both axons and dendrites are potential sites of synapses – sites of communication between two cells. In the majority of cases, the cells have no physical contact with each other and communication is done by means of neurochemical carriers called neurotransmitters. As soon as a developing axon reaches its target neuron, a synapse is formed. Frequently a synaptic proliferation occurs in different areas of the brain at the same time. Synapses are formed also prenatally but do not reach adult numbers until well after birth. The typical synaptical maturation pattern is following: initial overproduction, consolidation and loss of 'extras' or synaptic elimination (as cited in Jdynak, 2009, pp. 21-22)

Many neurologists have found that there is a direct relation between aging and brain functions. They claimed that as the brain ages, functionality may decline, maintain, or even improve depending on the type of usage. Lenneberg (1967), the early progenitor of the CPH, proposed that "if we look at behavior from a biological point of view, we should be surprised if we did not find critical periods" (pp. 168-169). A possible reason for the deterioration of these biological factors could be that, as individuals age, their brains lose plasticity which is the brain's innate ability to create and strengthen connections between neurons. Myelination has frequently been offered as an explanation for the brain losing its plasticity (Pulvermüller & Schumann, 1994, p. 44). A good explanation of myelination is provided by Hyltenstam and Abrahamsson (2003): "The myelination of cortical neurons is a physical-chemical process in the brain in which glial cells wrap the axons of the neurons with myelin … (a substance

contained in the glial cells that consists of lipids and proteins.)" (as cited in Daughty & Long, 2008, p. 561). Wrapping the axons with myelin gives the neurons nutrition and increases their ability to conduct signals, thus making it so that information can be transferred quickly across large distances. In addition, this makes connections with nearby neurons more difficult. However, Myelination begins at the fetal stage and continues well into adulthood, for at least several decades (as cited in Daughty & Long, 2008, p. 561), causing the brain to be increasingly less plastic, which in turn causes language development to decline (Lecours, 1975) (as cited in Long, 1990, p. 279). According to Pulvermüller and Schuman (1994), the process of myelination causes a decay in the ability to acquire grammatical knowledge (p. 44).

1.2.2.3.3 The Critical Period Hypothesis and Phonology

Scovel (1969, 1988) has always defended the claim that there is a critical period only for phonology. This period ranges between the ages of nine and twelve (puberty), where the learners cannot sound like natives. He posited that both the recognition and production of correct and strong accent decline after this period (as cited in Jdynak, 2009, p. 21). Lenneberg's biological explanation for what happens at the age of puberty and after can be best projected on phonological learning. To understand the effect of age on second language learning, it is necessary to shed light on some very basic developmental stages in children's L1 phonology and link it to the biological explanations mentioned earlier.

Gammon (2006) claimed that vocal preparation in infants passes through an arrangement of developmental stages (p.643). As a primary stage, the cooing period (2 to 4 months) can be described by a new kind of vocal production that occurs as new born children begin smiling and interacting with adults in their environment (Gammon, 2006, p. 643). Scovel (2006) described another stage, babbling (6 to 10 Months) as the "natural tendency of

children of this age to burst out in strings of consonant-vowel syllable clusters" (p. 10). He explained that in the age of half year, infants babble vowels and consonants which do not even belong or exist in their mother tongue. However, Masataka (2003) stated that in the late stages of the pre-linguistic period, infants gradually stop using sounds that do not exist in their surrounding language (p. 97).

From brain anatomy and processes explanations, it can be concluded that at these particular stages, kids' brains develop new synapses that are responsible for transferring and transmitting sounds of their mother tongue. This process continues with children until they reach puberty, where they become expert speakers of their L1, and carry an enormous number of synapses of that language. As it has been stated, Masataka (2003) claimed that children in the late stages of the pre-linguistic period stop using sounds that do not exist in their surrounding language (p. 97). Therefore, through time synapses which developed during the babbling stage, and which do not belong to their language, vanish because of the absence of practice. The latter is very essential for the plasticity of the brain.

1.2.2.3.4 The Critical Period Hypothesis in the First language

There are many concrete examples from the real world of some wild and isolated children who had no exposure to any language until they passed the critical period, supporting the claim of the Critical Period Hypothesis. For instance, Bridsong (2014) mentioned two famous examples, those of Genie and Chelsea (pp. 74-75).

> In October 1970, a girl nicknamed Genie, who from the age of 1 to the age of 13 was totally deprived of language input, was found by social workers in Los Angeles, California. Genie had been locked in a dark room alone and tied up to a chair. She had never socialized nor spoken to anyone. Her development was extremely delayed due to the abuse she

> experienced during her life. In fact, when the social workers found her, they thought she was between the age of 5 or 6 years old. Later, Genie was institutionalized after rescue. She made significant progress in some aspects of language, and absolutely none in others. Her vocabulary grew dramatically, for instance, like did her communicative powers; whereas in the other hand, her intonation remained bizarre and she was never able to produce any imbedded sentences or grammatical Wh-questions. Given the extended period of sadistic abuse and deprivation which Genie experienced, it would not be surprising if she had failed across the process of learning English; but there is no reason to predict that she would be unable to grasp the concept of structure dependence while still being able to learn new nouns and verbs. Genie's syntactic failure, in other words, seemed to be due to lack of input during a critical period.

There are also cases of linguistic deprivation in the absence of abuse; namely, those cases of congenitally deaf children of hearing parents where sign language input is not provided, or is provided only after some years. An extreme case, bearing comparison with Genie's, is that of Chelsea who was misdiagnosed as retarded or emotionally disturbed in early childhood, and who was found to be deaf when she was reevaluated at the age of 31. Unlike Genie's utterances, which at least sometimes seemed to have the structural complexity of a normal 2 years old (e.g., another house have dog), Chelsea's utterances appeared to have almost no structure at all (e.g., breakfast eating girl). Noting the differences between Genie's development and Chelsea's, Gleitman and Newport (1995) speculated that the CP may have a middle, "marginal" time in which partial development is possible (as cited in Birdsong, 2014, pp. 74-75).

Another example of wild children is that of Victor provided who was found in the wild at the age of 11 to 12 (Steinberg & Sciarini, 2006, p.93). He was not able to articulate any sounds but guttural animal-like noises. Victor was assigned to an educator called Itard who named him Victor. Itard made some objective plans to teach Victor how to speak in an attempt to socialize him. After five years of trying to teach Victor how to speak, he could not learn more than some basic words which are not used in a communicative context. After many attempts, Itard gave up and arranged Victor to live with a French family where he continued to be mute until his death at the age of about 38.

1.2.2.3.5 Critical Period Hypothesis in a Second Language

Since the hypothesis was introduced, many scholars such as Ellis (2013) refuted the idea of the younger, the better claiming that this view can be trusted only partially when it comes to second language learning. Investigations and studies have found that the basic argument of the critical period hypothesis is not reliable, because the issue of when cerebral lateralization precisely occurs and how much time it needs to complete the process has not yet been revealed. Supporters of this line of reasoning claim that the question raised in this position is what about those students who appear to have obviated the critical period? They always try to link their arguments to some concrete examples such as that of July, the English woman who married an Egyptian Arabic speaker (Deng & Zhu, 2016, p.117).

Julie is an English speaker who moved to Egypt when she was 21 due to her marriage to an Egyptian. In spite of the fact that she had never gotten guidance in Arabic as L2, she was equipped for learning the language in a naturalistic manner and now and again, people cannot distinguish her from the native speakers of the language. She was tested through a few means, for example, separating Egyptian accents with exceptionally precise answers, yet at the same time, she was not considered as native-like in some different tests. In any case, it was

recognized that there is more prominent proof supporting age-related consequences for second language learning. Nonetheless, the proof exhibited by current research is against the CPH. Rather than deciding an obvious point where accomplishing native-like levels is practically unthinkable, research look into discussions about a slow decrease in gaining this capacity (Alain, 2014, p. 18).

1.2.3 Advantages of Young Learners over Old Learners

According to Johnstone (2002), it is conceivable to locate a significant clarification about the terms ‘Young and Old’ learners. Obviously, there is no such thing as “the” younger learner or “the” older learner, since there are numerous phases in the life-long process among 'young' and 'old', at any of which there is extensive variety among people (p.11). Therefore, he represented the following advantages of younger learners over older learners:

- ✓ They tend to acquire the basis of the sound system easily.
- ✓ Their anxiety for learning languages is lower and hence, their affective filter is up and they can retain a greater measure of language.
- ✓ With regard to time, it is anything but difficult to presume that they will have additional time accessible than older students since they begin before them.
- ✓ With regard to biological features, beginning at an early age permits the student to make interfaces inside languages and this conveys a gigantic advantage to kids’ language awareness.
- ✓ Languages are additionally about various cultures and presenting children to languages from early ages drives them to be more interculturally conscious and this is a positive fact for their educational improvement.
- ✓ Have a lot of physical energy and often need to be physically active.
- ✓ Have a wide range of emotional needs.
- ✓ Are emotionally excitable.

- ✓ Are developing conceptually and are at an early stage of their schooling.
- ✓ Are still developing literacy in their first language.
- ✓ Are excellent mimics.
- ✓ Can concentrate for a surprisingly long time if they are interested.
- ✓ Can be easily distracted but also very enthusiastic.
- ✓ Learn in a variety of ways, for example, by watching, by listening, by imitating, by doing things.
- ✓ Can generally imitate the sounds they hear quite accurately and copy the way adults speak.
- ✓ Are naturally curious.
- ✓ Love to play and use their imagination.
- ✓ Are comfortable with routines and enjoy repetition.
- ✓ Have quite a short attention span and so need variety" (Slattery & Willis, 2001, p.4).

Johnstone argued: "given appropriate teaching and conditions for learning, younger learners may possess the following advantages over older beginners in learning an additional language:

- ✓ They are likely to be less 'language anxious' than many older learners and hence may be more able to absorb language rather than block it out.
- ✓ An earlier start enables productive links to be made between first and additional languages, which can have important benefits for a child's language awareness and literacy.
- ✓ There can be a positive influence on children's general educational development (e.g. cognitive, emotional, cultural) and on the formation of a multilingual and intercultural identity" (Johnstone, 2002, p. 12).

Conclusion

The first chapter tried, through its lines, to give a theoretical view for both pronunciation learning and the age factor. These two elements were distributed along two sections. The first section was devoted to pronunciation learning. First, the section gave different definitions for pronunciation provided by different scholars. Then, the section went through the two major elements of pronunciation before moving to pronunciation evaluation. Last but not least, the different factors that affect pronunciation learning have taken place in this section. The second section has been devoted to a literature review for the age factor in second language learning. It first clarified why the age factor was chosen as the focus of study. Then, it gave an overview on the theories that take the age factor as their center of focus, mainly the fundamental difference hypothesis, the cognitive aging hypotheses, and the critical period hypothesis. Then the section provided a deep explanation for the biological changes that occur as the person gets older. Finally, this section has closed with giving some advantages of young learners over old learners.

Chapter Two: Research Methodology, Data analysis, and Data Discussion

Introduction

While the previous chapter has aimed to provide a comprehensive review of the major theoretical aspects of pronunciation learning strategies and pronunciation skill, the second chapter is mainly concerned with the practical framework. The present chapter, hence, comprises three main sections: the research methodology, the data analysis as well as the data interpretation section. The research methodology is discussed in the first section with an elaborate description of the research paradigm, population, research instrument, data collection procedures, and data analysis, along with the limitations of the study. As for the second section, data analysis displays the main results obtained from the research instrument. Subsequently, the discussion and interpretation of the major finding of the data analysis along with pedagogical recommendations will be covered in the third section.

Section One: Research Methodology

Introduction

The research methodology section gives an overview on the research paradigm, the setting, the sample of the study along with the research design. The latter describes the instruments and the procedures used in data collection as well as a description of the method used for data analysis. Last but not least, the final section gives limitations the study faced along with some recommendations.

2.1.1 Research paradigm

In an attempt to explore the effect of the age factor on second language pronunciation learning, the current investigation has adhered to the experimental nature of research design as it opted for a quantitative approach of data analysis. Nunan (1992) considered the

experimental design an effective approach applied in academic and scientific research which aims at exploring the strength of the relationship between the variables. Likewise, Dörnyei (2007) pointed out that the experimental paradigm as a quantitative method of research aims at identifying the relationship between the variables by measuring them or manipulating them.

Practically, this experimental study was based on one three experimental groups. These groups received a diagnostic test 'pre-test' and a summative assessment 'post-test' after seven sessions of treatment to test learners' improvement level.

2.1.2 Setting

To compare the effect of earlier-onset instruction with later-onset instruction on learners' pronunciation development, there was a necessity to access a sample with three groups of learners who are at the age of (11), (13), and (15). The researcher had to choose one of the two populations, either EFL learners who study English as their specialty, or EFL learners in a private school who went mainly asking for English learning. The first was not an option because of the strike which the university was witnessing, so the study was carried out at "Fly High" private school in Taher. The latter is a private school for languages with exclusively Algerian students, and with a focus on developing English language abilities.

2.1.3 Population and Sampling

Dörnyei (2007) defined a sample as "the group of participants whom the researcher actually examines in an empirical investigation" (p. 96).

Prior to selecting the research sample, it had been applied to the head of the department of English Language for permission to carry out the study in a private school first, along with another permission from the principle of the school to use his learners as a selected population for the study. After the purpose and scope of the investigation were explained and ethical

concerns related to the privacy were addressed, the principal granted access to a small number of students (n=42).

Three groups of fourteen (14) learners in each group from a total of forty-two (42) students were selected in the previously mentioned school. The first group consisted of eleven (11) years old learners. The second group consisted of thirteen (13) years old learners and the last group consisted of fifteen (15) years old learners.

The rationale behind choosing these three groups is to have a periodic tracing for the effect of the age of puberty on the pronunciation learning process. Hence, the first group lives in the pre-puberty period, the second in the while-puberty period and the last in the post-puberty period.

2.1.4 Research Design

This sub-section discusses the research design of this study. It covers the data gathering instruments, the data collection procedures along with the data analysis procedures.

2.1.4.1 Data Gathering Instrument

To test the research hypothesis, an experiment was performed by delivering some pronunciation tasks; the latter was adopted as the main instrument to collect data. The learners had two tests; a diagnostic test ‘pre-test’ and a summative test ‘post-test’ with the interval of seven lessons for each group (two lessons per week). The three groups had the pre-test on the 3rd of May 2019 while the post-test took place on the 30th of the same month.

2.1.4.2 Data Collection Procedure

In order to examine the effect of age on pronunciation learning, the learners were given a pre-test that contained eight tasks from well known tasks that are used in pronunciation

assessment. The tasks were sounds recognition, silent letters circling, hearing identification, sound discrimination, intonation, sentence reading, individual words reading, and speaking.

After the pre-test was conducted, the researcher taught the three groups seven sessions for each group. The classes were run in a traditional way. That is to say, the learners faced the researcher who relied on the board to deliver the seven sessions on problematic consonant and vowel sounds, general spelling rules for silent letters, different intonation patterns, strong and weak forms in connected speech, stress placement, and the last session was devoted to speaking and error correction.

Last, the learners were given a post-test which is similar to the pre-test. The two tests where corrected and the marks of each task were copied on excel program.

2.1.4.3 Description of the Tasks Used for Data Collection

The sounds recognition task contained twenty-two (22) words, in each word a letter(s) were bolded and underlined showing the learners which sounds they need to classify. The learners were asked to put the words in a table that contained twenty-two (22) columns according to the pronunciation of the underlined letter(s). In the second task, the learners were asked to circle the silent letter(s) in thirteen words which together contained fourteen silent letters. The third task was about hearing identification, where the examiner wrote two sentences with a gap in each sentence and options beneath. The options were close in pronunciation that a non-English ear cannot distinguish between. In this task the examiner read the sentences in full using one word from the options and asked the learners to write the word they heard.

The fourth task was divided to sounds discrimination where the examiner selected forty-three (43) pairs of words and asked the learners to tick “same” or “different” each time they

hear a pair of words regarding their pronunciation. The fifth task was about intonation. The examiner opted to use four question tags with two options for the learners, “confirm” or “ask”. The examiner read the four question tags with different intonations and in each question he asked the learners to circle the intention of the speaker, “confirm” or “ask”. In the sixth task, the learners were given three sentences to read aloud. In the first sentence, the examiner intended to test if the learners can distinguish between the sounds /d/ and /ð/ while reading. In the second sentence, he intended to test if learners respect intonation in w/h questions. And in the last sentence, he intended to examine if the learners respect stress placement. However, the examiner did not give any hints about his intentions.

The seventh task was about individual words reading where the examiner selected 45 different words and asked the learners to read them aloud while he ticked “correct” or “incorrect”. The last task dealt with free speaking where the learners were asked to introduce themselves stating some pre-selected information which included first name, surname, age, origin, job, physical appearance, likes and dislikes. The learners were recorded by the researcher and then the recordings were analyzed. The researcher focused mainly on the correct pronunciation of fourteen words along with intonation. The transcriptions of the words are in the appendix.

2.1.4.4 Description of the Treatment

As it has been mentioned earlier, the three groups had seven sessions for each group. The opening session focused on the teaching of the most problematic consonant sounds that the examiner noticed in the correction of the pre-test answers along with some other consonant sounds that the examiner considered problematic for the learners and that from the experience he had as a teacher at the same school. As a procedure, the examiner started the lesson with a warm-up where he tried to show the learners the importance of having correct

pronunciation of words and that those words contain some segments called sounds and any change in one sound will affect the meaning of the word and thus they will be misunderstood. After the warm-up the examiner went through the consonant sounds one by one giving them the rules of each consonant sound and how they are articulated in accordance to the RP system.

The second session was devoted to the teaching of all English vowel sounds. Again, the examiner started the lesson with a warm-up where he explained the difference between vowels and vowel sounds and that each vowel can be pronounced in different ways. As a procedure, the examiner printed two tables with long vowel sounds and short vowel sounds along with the spelling that might be found for each vowel sound.

In the third session, the learners were provided with general spelling rules for silent letters. The lesson started with a warm-up where the examiner played a video that shows some non-native speakers trying to speak to some natives who could not understand them, simply because they read what they want to say from a dictionary using the spelling pronunciation of the words. As a presentation, the examiner printed a table which contained the spelling rules for each letter in the alphabet that indicate when they are not pronounced.

The fourth session tried to shed light on the different kinds of intonation. The lesson started with a warm-up where the examiner played a training video which shows a music educator teaching her learners how to control the melody of their singing by raising the intonation through counting from 1 to 8 and then lowering it through counting back from 8 to 1 in a melodic way. After watching the video, the examiner tried to train the learners to control their intonation using the same method the trainer adopted in the video. To present the lesson, the examiner printed the rules of the different intonation patterns and explained how they can change their intention through changing their intonation.

In the fifth session, the learners were exposed to the issue of stress placement. In the warm-up, they watched a video that played different accents from over the world and how they stress words in a hilarious way. After that, the session was divided into two parts. In the first part, the examiner explained how they can count syllables in a word (this was an opportunity for revising consonant and vowel sounds). However, in the second part the examiner explained how meaning changes by changing stress placement within the word. Finally, the examiner printed different stress placement rules and gave some examples for each case.

The sixth session touched on the topic of strong and weak forms in connected speech. The session was divided to the explanation of what connected speech is, and the introduction of different weak forms for different English words. The latter were printed and handed to the learners.

In the last session, the examiner integrated all the previous sessions in a speaking session. He asked the learners to introduce themselves and tried to detect any errors and corrected them through rereading the incorrect statement and asking the learners to imitate it. As a procedure, the examiner wrote an introduction sample on the board and discriminated all the words in the sample. Then, he explained all the previously mentioned elements in accordance to the sample and where they occur.

2.1.5 Data Analysis Procedure

The data gathered from the research instrument was analyzed quantitatively by means of Microsoft Office Excel 7 program. As far as the pre-test is concerned, the researcher copied the scores of each learner on Microsoft Excel and measured the mean and the percentage of correct answers of each task along with the mean and the percentage of correct answers of all tasks as a total for each group separately. As for the post-test, the researcher adopted the same

procedure he used in the pre-test. After data base was gathered, the researcher used the total percentage and the mean he measured in the pre and post tests to measure the developmental difference between the two tests for each group. The results were illustrated in the form of tables and figures.

2.1.6 Limitations of the Study

During the process to pursuit this work, some obstacles and uncontrollable circumstances interfered and imposed themselves on the process to hinder the accomplishment of the research study. Hence, the following limitations have to be considered.

- ✓ Tasks devoted to pronunciation evaluation are very rare.
- ✓ The study took place in a private school, the thing which does not allow the results to be generalized to those learners of public schools.
- ✓ Time constraints: the time given to the study was not sufficient to have a representative evaluation of the learners' development.

Section Two: Data Analysis

Introduction

This section is exclusively devoted to the analysis of the research instrument employed in this study namely, the pre-test and post-test results. In order to meet the objective of this study, this section is devoted to the statistical analysis of the three groups performance during the pre-test and the post-test, in addition to an analysis of the developmental change and difference within the groups and between them.

2.2.1 Analysis of the pre-test

By the end of data collection and the measurements mentioned earlier the results were represented in the following tables.

a. Group 1

Table 2.1

Pre Test Results (group 1)

Learner	SR / 22	SL / 14	HI / 2	SD/ 43	Intonation / 4	RS / 5	RW/ 45	Sp /15	Total/ 150
L1	10	8	2	34	3	2	30	10	99
L2	11	4	2	40	4	4	28	5	98
L3	12	5	2	36	3	3	19	5	85
L4	15	8	1	41	4	2	29	9	109
L5	17	9	2	38	4	4	38	13	125
L6	18	9	2	40	3	3	35	10	120
L7	15	8	1	39	3	3	27	11	107
L8	12	6	2	36	4	4	26	2	92

L9	13	6	2	36	4	3	37	12	113
L10	21	11	2	39	4	3	37	11	128
L11	14	7	2	24	3	1	31	7	89
L12	13	9	2	40	4	2	31	12	113
L13	15	8	2	39	4	4	39	11	122
L14	11	6	2	40	4	3	35	13	114
Total	197	104	26	522	51	41	442	131	1514
Mean	14,07	7,42	1,85	37,28	3,64	2,92	31,57	9,35	108,14
Percentage	24,02%	39,79%	67,85%	79,06%	78,57%	27,14%	56,19%	6,66%	51,33%

Note. SR= Sounds Recognition. SL= Silent Letters. HI= Hearing Identification. SD= Sound Discrimination. RS= Reading Sentences. RW= Reading Words. Sp= Speaking

The above table represents the results of the pre-test concerning group one which contains eleven years old learners. From the table, it can be noticed that the learners' performance was above average in sound discrimination task followed by intonation then hearing identification and last individual words reading. However, their performance was under average in the other tasks. In general, the learners succeed to answer more than 51% of the test.

b. Group 2

Table 2.2

Pre Test Results (group 2)

Learner	**SR / 22**	**SL / 14**	**HI / 2**	**SD/ 43**	**Intonation / 4**	**RS / 5**	**RW/ 45**	**Sp /15**	**Total/ 150**
L1	16	9	2	36	2	3	26	2	96
L2	8	8	2	27	3	3	30	3	84

L3	14	10	2	35	2	2	29	1	95
L4	18	11	2	39	0	0	32	1	103
L5	13	12	2	39	0	1	37	2	106
L6	13	8	2	38	2	4	32	1	100
L7	16	10	2	36	0	4	27	1	96
L8	12	9	2	18	0	1	26	1	69
L9	19	11	1	39	0	3	39	1	113
L10	15	9	1	38	4	1	22	2	92
L11	21	9	2	36	2	2	30	3	105
L12	8	9	2	41	2	2	28	4	96
L13	13	9	2	37	3	1	30	2	97
L14	11	7	2	33	2	1	35	2	93
Total	197	131	23	492	22	28	416	26	1335
Mean	14,07	9,35	1,64	35,14	1,57	2	29,71	1,85	95,35
Percentage	63,96%	66,83%	82,14%	81,72%	39,28%	40%	66,03%	12,38%	63,57%

The second table represents the results performed by the second group (13 years old learners) during their pre-test. It is clear from the table that the learners' performance was above average in the majority of the tasks, except for speaking and intonation. Thus, the general percentage that represents the learners' performance in the entire test was more than 63%.

c. Group 3

Table 2.3

Pre Test Results (group 3)

Learner	SR / 22	SL / 14	HI / 2	SD/ 43	Intonation / 4	RS / 5	RW/ 45	Sp /15	Total/ 150
L1	19	11	2	36	2	3	42	9	124
L2	11	10	2	36	1	3	32	2	97
L3	17	8	2	36	3	1	25	3	95
L4	10	5	2	36	3	1	35	3	95
L5	20	12	2	37	4	4	42	3	124
L6	12	10	2	38	3	2	40	4	111
L7	11	8	2	37	2	0	31	5	96
L8	13	10	0	38	2	1	32	3	99
L9	13	13	2	39	4	2	37	3	113
L10	15	9	1	35	4	1	32	3	100
L11	16	11	2	35	2	1	32	2	101
L12	14	11	2	38	4	4	35	2	110
L13	15	10	2	40	1	4	40	2	114
L14	16	8	2	36	3	2	38	2	107
Total	202	136	25	517	38	29	493	46	1486
Mean	14,42	9,71	1,78	36,92	2,71	2,07	35,21	3,28	106,14
Percentage	65,58%	69,38%	89,28%	85,88%	67,85%	41,42%	78,25%	21,90%	70,76%

The third table represents the results performed by the third group which consists of fifteen years old learners. It is obvious that the learners' performance was under average in

the speaking and sentence reading tasks unlike the other tasks. Hence, their general performance percentage was more than *70%*.

2.2.2 Analysis of the Post-test

a. Group 1

Table 2.4

Post Test Results (group 1)

Learner	**SR / 22**	**SL / 14**	**HI / 2**	**SD/ 43**	**Intonation / 4**	**RS / 5**	**RW/ 45**	**Sp /15**	**Total/ 150**
L1	10	8	2	34	3	2	30	10	99
L2	11	4	2	40	4	4	28	5	98
L3	12	5	2	36	3	3	19	5	85
L4	15	8	1	41	4	2	29	9	109
L5	17	9	2	38	4	4	38	13	125
L6	18	9	2	40	3	3	35	10	120
L7	15	8	1	39	3	3	27	11	107
L8	12	6	2	36	4	4	26	2	92
L9	13	6	2	36	4	3	37	12	113
L10	21	11	2	39	4	3	37	11	128
L11	14	7	2	24	3	1	31	7	89
L12	13	9	2	40	4	2	31	12	113
L13	15	8	2	39	4	4	39	11	122
L14	11	6	2	40	4	3	35	13	114
Total	197	104	26	522	51	41	442	131	1514
Mean	14,07	7,42	1,85	37,28	3,64	2,92	31,57	9,35	108,14
percentage	63,96%	53,06%	92,85%	86,71%	91,07%	60%	70,15%	62,38%	72,14%

The above table shows group 1 learners' marks which reflect their performance during the post test. It is clear from the table that all the results were above the average where the highest score was marked in the hearing identification task and the lowest was found in the silent letters' task. The learners succeed to answer more than *72%* of the test.

b. Group 2

Table 2.5

Post Test Results (group 2)

Learner	**SR / 22**	**SL / 14**	**HI / 2**	**SD/ 43**	**Intonation / 4**	**RS / 5**	**RW/ 45**	**Sp /15**	**Total/ 150**
L1	16	9	1	35	2	2	30	8	103
L2	14	12	2	31	4	4	29	8	104
L3	18	9	2	40	0	2	27	8	106
L4	21	12	2	39	0	2	34	8	118
L5	17	13	2	38	0	3	36	8	117
L6	19	11	2	33	3	1	29	12	110
L7	15	8	2	36	0	3	24	8	96
L8	14	8	1	25	3	2	28	8	89
L9	20	11	2	38	4	2	34	12	123
L10	22	12	1	41	4	1	26	9	116
L11	18	11	2	39	2	5	33	13	123
L12	19	9	2	41	2	3	39	9	124
L13	18	10	2	40	3	2	29	9	113
L14	17	5	2	33	2	2	23	9	93
Total	252	143	26	509	29	36	427	129	1551
Mean	18	10,21	1,85	36,35	2,071	2,57	30,5	9,21	110,78

Percentage	81,81%	72,95%	92,85%	84,55%	51,78%	51,42%	67,77%	61,42%	73,85%

The second table represents post test results which reflect group 2 learners' marks on their post test. From the table, it is noticeable that learners were above the average in all tasks having the highest score in hearing identification task and the lowest in sentence reading task. The learners succeed to answer more than *73%* of the test.

c. Group 3

Table 2.6

Post Test Results (group 3)

Learner	**SR / 22**	**SL / 14**	**HI / 2**	**SD/ 43**	**Intonation / 4**	**RS / 5**	**RW/ 45**	**Sp /15**	**Total/ 150**
L1	22	13	2	39	2	2	43	15	138
L2	16	10	2	41	4	1	37	6	117
L3	14	10	2	31	3	2	35	6	103
L4	15	8	2	36	2	1	31	6	101
L5	20	13	2	38	3	3	38	6	123
L6	19	12	2	39	2	3	38	6	121
L7	17	9	1	39	4	2	32	6	110
L8	22	11	2	38	2	2	38	4	119
L9	15	12	2	41	1	4	37	8	120
L10	21	10	2	37	2	3	34	3	112
L11	19	9	2	35	2	2	35	6	110
L12	20	11	2	33	4	3	32	7	112
L13	17	8	2	40	4	5	38	7	121
L14	19	11	2	39	4	3	37	7	122

Total	256	147	27	526	39	36	502	93	1626
Mean	18,28	10,5	1,92	37,57	2,78	2,57	35,85	6,64	116,14
Percentage	83,11%	75%	96,42%	87,37%	69,64%	51,42%	79,68%	44,28%	77,42%

The last table represents group 3 learners' performance during their post test. Again, the learners' performance was above average in all tasks except individual words reading task. The highest score they had was that of hearing identification task and the lowest was that of individual words reading. The learners succeed to answer more than *77%* of the test.

2.2.3 Analysis of the Pre-test/Post-test Difference Results

a. Group 1

Table 2.7

Pre-test/Post-test Difference Results (group 1)

	SR	**SL**	**HI**	**SD**	**Intonation**	**RS**	**RW**	**Sp**	**Total**
Total difference	123	26	7	46	7	23	88	117	437
Mean difference	8,78	1,85	0,5	3,28	0,5	1,64	6,28	8,35	31,21
Percentage difference	39,93%	13,26%	25%	7,64%	12,5%	32,85%	13,96%	55,71%	20,80%

The table represents the difference between the results of the pre test and the post test. It shows the measurements found concerning the differences in the total score, the mean, the percentage of each task and the total between the pre and post tests. The group improved by more than *39%* in the sounds recognition task. An improvement by more than *13%* concerning silent letters task is marked. A *25%* improvement was marked in the hearing identification task. Learners showed a more than 7% improvement concerning sounds discrimination task. An improvement by *12,5%* concerning intonation task. Regarding sentence reading, the learners improved by more than *31%* and more than *13%* concerning

individual words reading. Last but not least, the learners showed an improvement by more than *55%* concerning speaking. As a global, a *20%* improvement from the pre-test was shown by group 1.

b. Group 2

Table 2.8

Pre-test/Post-test Difference Results (group 2)

	SR	**SL**	**HI**	**SD**	**Intonation**	**RS**	**RW**	**Sp**	**Total**
Total difference	55	12	3	17	7	8	11	103	216
Mean difference	3,92	0,85	0,21	1,21	0,5	0,57	0,78	7,35	15,42
Percentage difference	17,85%	6,12%	10,71%	2,82%	12,5%	11,42%	1,74%	49,04%	10,28%

The table represents the difference between the results of the pre test and the post test. It shows the measurements found concerning the differences in the total score, the mean, the percentage of each task and the total between the pre and post tests. The group improved by more than *17%* in the sounds recognition task. An improvement by more than *6%* concerning silent letters task was marked. A *10%* improvement was found in the hearing identification task. More than *2%* improvement was noticed concerning sounds discrimination task and a *12,5%* improvement concerning intonation task. Regarding sentence reading, the learners improved by more than *11%* and more than *01%* for individual words reading. Last but not least, the learners showed an improvement by more than *49%* concerning speaking. In general, a *10%* improvement from the pre-test was shown by group 2.

c. Group 3

Table 2.9

Pre-test/Post-test Difference Results (group 3)

	SR	**SL**	**HI**	**SD**	**Intonation**	**RS**	**RW**	**Sp**	**Total**
Total difference	54	11	2	9	1	7	9	47	140
Mean difference	3,85	0,78	0,14	0,64	0,07	0,5	0,64	3,35	10
Percentage difference	17,53%	5,61%	7,14%	1,49%	1,78%	10%	1,42%	22,38%	6,66%

The table represents the difference between the results of pre-test and post-test. It shows the measurements found concerning the differences in the total score, the mean, and the percentage of each task as well as the total difference between the pre and post tests. The group improved by more than *17%* in the sounds recognition task. An improvement by more than *5%* concerning silent letters task was marked. A *7%* improvement was marked in the hearing identification task. More than *01%* improvement was shown concerning sounds discrimination task. An improvement by *01%* concerning intonation task was noticed. Regarding sentence reading, the learners improved by *10%* and more than *01%* for individual words reading. Last but not least, the learners showed an improvement by more than *22%* concerning speaking. As a global, a *6%* improvement from the pre-test was shown by group 3.

2.2.4 Analysis of the Developmental Difference between Groups

In this part, the improvement level from the pre-test is described and compared between the three groups.

Table 2.10

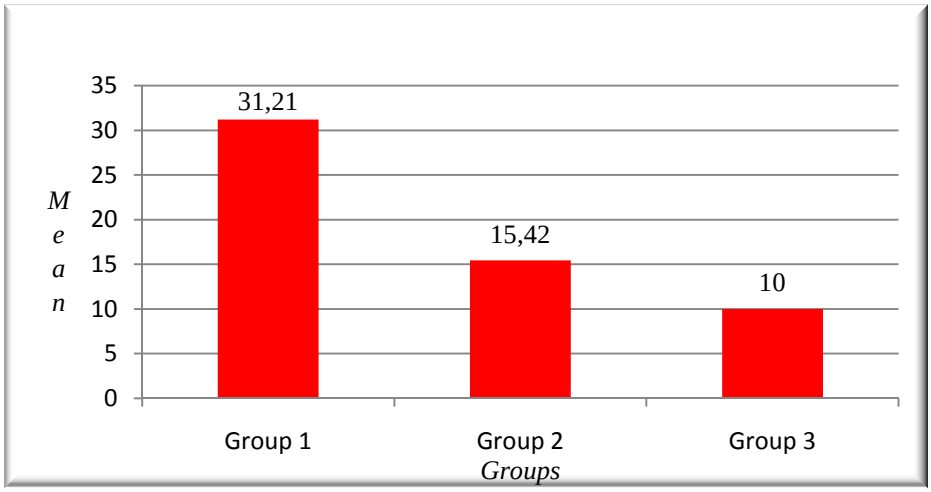
Learners' Total Difference

Learners	G1 Development	G2 Development	G3 Development
L1	27	8	14
L2	16	20	20
L3	29	15	8
L4	20	15	6
L5	50	19	2
L6	38	10	10
L7	26	0	14
L8	27	21	20
L9	26	10	7
L10	34	24	12
L11	38	20	9
L12	32	29	2
L13	42	17	1
L14	32	8	15
Mean	31,21	15,42	10

From the above table, it is crystal clear that the highest mean of the total development was scored by group 1(11 years old learners) with a mean of (M=31,21) followed by group 2 (13 years old learners) who had a mean of (M=15,42) and the lowest mean of the total development was marked by group 3 (15 years old learners) who scored a mean of (M=10). This can be illustrated in the following chart:

Figure 2.1

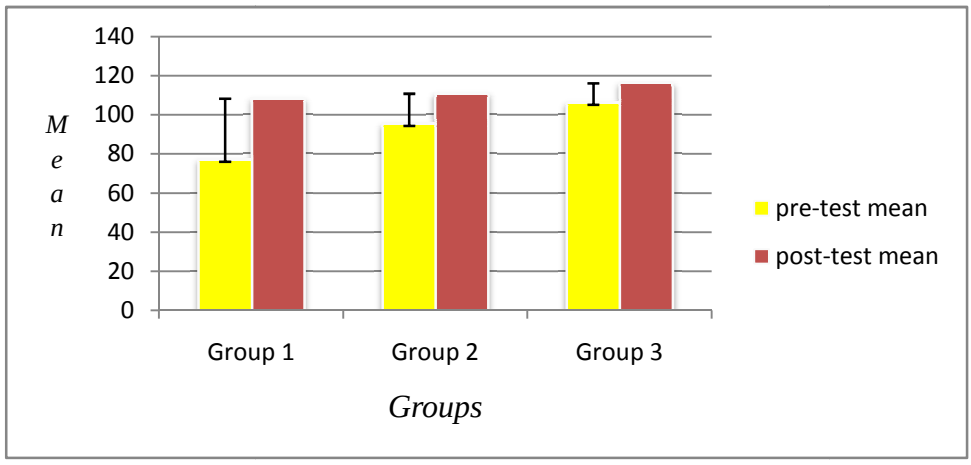
Improvement Comparison



The following figure gives another illustration for the level of improvement between the pre and the post tests of each group. The vertical lines on the pre-test columns represent the degree of development; hence the difference can be compared through their length.

Figure 2.2

Levels of Improvement Comparison



Section Three: Data Discussion and Interpretation

Introduction

The present study sought to shed light on the effect of age on second language pronunciation learning for Fly High Private School learners. More importantly, the study intended to explore the cause effect relationship between age of learning and the attainment of correct pronunciation. In order to draw the conclusions about the major findings yielded from the current study, the present section sets the ground for the discussion and interpretation of the main results obtained from the data analysis section. The discussion of the major findings will be outlined to meet the answers of the following main research questions:

- ✓ Does age affect second language pronunciation learning?
- ✓ Can the Critical Period Hypothesis be implemented to second language pronunciation learning?

2.3.1 The Effect of Age on Second Language Pronunciation Learning

The analysis of data has revealed on the major view concerning the effect of age on second language learning for three groups of learners from Fly High private school of languages. The first group consisted of 11 years learners (n=14). The second group consisted of the same number of learners (n=14) who are at the age of 13. And the third consisted of 15 years old learners (n=14). Hence, the number of participants was (n= 42).

The results of the pre-test showed superiority of 15 years old learners over 13 years old learners and a superiority of 13 years old learners over 11 years old learners. However, that is due to the number of years studying English. According to the information gathered by the researcher about the participants, 15 years old learners have been studying English for three years and half on the days of the experiment. 13 years old learners, in the other hand, have

been studying English for two years and half. However, 11 years old learners have been studying English for nine months only. This has given the superiority in score for one group over another in both pre-test and post-test. However, putting this into consideration, the researcher opted to compare the learners' improvement between the pre-test and the post-test rather than their scores. Since the learners had the same hours of learning, the same lessons and the same teacher using the same method, the comparison of level of improvement has provided a clear picture about which group can learn quicker and can absorb more amounts of knowledge.

Another way to check which is better, early learning or late learning is through measuring approximately, how much time each group needs to improve by 100%. According to the data analysis, 11 years old learners have improved by 20,80% in six sessions of one hour and half long; that is to say nine hours of learning. While the 13 years old learners have improved by 10,28% and 15 years old learners by 6,66% during the same period. By conducting a simple calculation, it can be found that the first group will need 43 hours of learning. The second group will need 87 hours while the third group will need 135 hours to achieve such improvement. These numerical data show that young learners need less time to achieve a level that is native-like or close to it while older learners require more time; however, this does not mean that it is impossible for old learners to achieve such level but the process will take more time and effort than those younger learners.

In the light of the data analysis results, it can be concluded that there is a direct effect of age on second language pronunciation learning and that the claim of "the younger, the better" is correct. In other words, it would be better to learn the pronunciation of the target language in an early age because that would be helpful and requires shorter time.

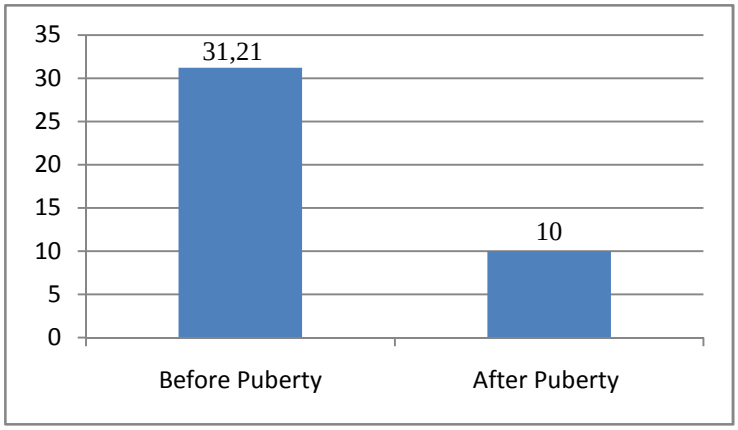
2.3.2 The Implementation of the Critical Period Hypothesis on SLPL

As it has been clarified in the methodology section, the rationale behind the selection of the population was on the basis of the critical period hypothesis. That is to say, the researcher selected three groups from different ages; pre-puberty, age of puberty and after puberty to see if there is an effect of age on pronunciation learning from one side, and to test if the claims of the critical period hypothesis can be projected on second language pronunciation learning from the other side.

From the data analysis, it can be found that there is a huge gap in the level of improvement between those learners before the age of puberty and those after puberty. Therefore, and according to these findings, it can be concluded that the claims of the critical period hypothesis can be best projected and implemented on second language pronunciation learning, and this may answer the second research question. The following chart gives a clearer illustration for the gap between the two groups:

Figure 2.3

Improvement Level (before and after puberty)



2.3.3 Pedagogical Recommendations

In the light of the present research findings yielded from the analysis, and after proving that age has a direct impact on language learning in general and pronunciation learning in particular, it is very necessary to state some pedagogical recommendations for the Ministry of education, the teachers and syllabus designers.

- ✓ English language should be taught in an earlier age in Algeria to seize the opportunity of the critical period rather than starting it at the age of 11 where the critical period is about to reach its terminus stage.
- ✓ More attention should be given to pronunciation for its importance in delivering meaning and avoiding misunderstanding.
- ✓ Each unit in the syllabus should contain different pronunciation rules that might be found in the lessons underlined to be taught.
- ✓ More segments should be underlined to be taught in early stages and then it decreases and not the opposite.
- ✓ Teachers, as the most important source of the target language for learners, should work on their pronunciation so that they can deliver correct pronunciation.
- ✓ The number of hours devoted to English teaching and learning should be increased.

Conclusion

In three sections, the second chapter has provided an overall picture on the research methodology, data analysis, and interpretation of the results. The first section was devoted to the research methodology. It went through research paradigm, setting, population and sampling, and research design. Last, the section ended with the limitations of the study. The second section however, was seized to the analysis of the data collected through the research instrument. In the form of tables and figures, the section has provided the numerical data for

the results performed by the learners of the three groups along with the means and the percentages of correct answers for both pre and post tests. Last but not least, the third section has been devoted to discuss the major findings that sprung up from the data analysis section. Primarily, it aimed to give a detailed picture of the effect of age on second language learning where it included that there is a direct effect of age and that the younger the better claim is true. In addition, the section aimed at showing that the critical period hypothesis can be best implemented to second language pronunciation learning. Finally, based on the findings, some pedagogical recommendations were represented.

General Conclusion

Pronunciation has always been treated as a sub-skill, but recently, its importance has occupied a considerable part in language learning research, and it has become a scale for measuring the learners' capability of controlling the target language. However, the majority of learners, even after intensive learning of the target language, fail to attain a native-like pronunciation or even close to it. This problem, as many researchers suggested, is due to the fact that foreign languages are often learned in an older age. The present research study, then, is an attempt to investigate the aforementioned claims, and to test if there is a relationship between the age of the learner and his ability to learn the second language pronunciation. In its lines, the first chapter has been divided into two sections. The first section was devoted to give an overview on pronunciation learning. The second section reviews the major theoretical views related to the age factor in second language learning. The second chapter, however, was divided into three sections. The opening section introduced the research methodology in addition to the statistical analysis of the research instrument in the second section. Lastly, the discussions of the major findings are covered in a separate third section.

With a special reference to Fly High Private School learners, it was hypothesized that if Algerian English learners were exposed to the language at an early age, they would learn pronunciation quicker and better. To test this hypothesis, an experiment was conducted on three groups from Fly High Private School. The three groups were classified according to their ages; 11, 13, and 15 year old. As a diagnostic test, the three groups had a pre-test before they were introduced to seven sessions on pronunciation learning. By the end, the learners had a post-test to test and compare their improvement level.

The findings of the analysis of the experiment indicated that 11 year old learners performed better improvement than the 13 year old ones, and this latter performed better

improvement than 15 year old learners. These findings show that the younger the learners are the better and the quicker they learn the pronunciation of the target language; and hence the hypothesis was confirmed.

References

Alain, C. (2004). *The effect of age on Second language acquisition in older adults.* Brigham Young University-Provo.

Areen, A. M & Taha, J. A, (2014). *Segmental and suprasegmantal difficulties in English pronunciation to EFL students.* Kuja University.

Arena, L.A, 1990 (Ed.). *Language proficiency: Defining, Teaching and Testing.* University of Delaware, Nawark, Delware.

Avery, P & Ehrlich,S. (1992). *Teaching American English pronunciation.* Oxford University Press.

Avery, P., & Ehrlich, S. (1987). Preliminary considerations in the teaching of pronunciation. London: TESL Center.

Blivins, W, (1996). Phonetics from A to Z. Scholastic Inc.

Brinton, L. J. (2000). The structure of modern English: A Linguistic Introduction. John Benjamins Publishing.

Burgess, J., & Spencer, S. (2000). Phonology and pronunciation in integrated language teaching and teacher education. System, 28(2), 191-215.

Carr, P. (2012). English phonetics and phonology: An introduction. John Wiley & Sons.

Celce-Murcia, M., Brinton, D. M., & Goodwin, J. M. (1996). Teaching pronunciation: A reference for teachers of English to speakers of other languages. Cambridge University Press. New York, NY.

Chun, D. M. (2002). *Discourse intonation in L2*: From theory and research to practice

(Vol. 1). John Benjamins Publishing. University of California, Santa Barbara.

Clark, J.E. & Yallop.C. (1995). *An introduction to phonetics and phonology, second edition*. Library of Congress Cataloging-in- Publicating Data.

COOK, V, (2008). *Second language learning and language teaching.* Routledge, London.

Cruttenden, A. (1997). *Intonation, second edition*. Cambridge University Press, New York.

Cruttenden, A. (2008). *Gimson's pronunciation of English, seventh edition*. Routedge Taylor & Francis Group, London and New York.

Crystal, D. (2008). *A dictionary of linguistics and phonetics, sixth edition*. Malden, Blackwell.

Cummings, D. W. (1988). *American English spelling: An informal description*. JHU Press, Baltimore and London.

Dalton, C., & Seidlhofer, B. (1994). *Pronunciation*. Oxford University Press.

Deng, F., & Zhu, L. Q. (2016). *An analysis of critical period hypothesis in English teaching*. Sino-US English Teaching, 13(2), 116-122.

Diaz, C. (2016). *The critical period hypothesis*. Universidad Fasta. Facultada De Ciencias De la Education.

Doughty, C. J., & Long, M. H. (Eds.). (2008). *The handbook of second language acquisition* (Vol. 27). John Wiley & Sons.

Dörnyei, Z. (2007). *Research methods in applied linguistics: Quantitative, qualitative, and mixed methodologies*. Oxford: Oxford University Press.

Ellis, R. (2013). *The study of second language acquisition second edition.* Shanghai: Shanghai Foreign Language Education Press.

Flege, J. & Liu, S. (2001). The effect of experience on adults' acquisition of a second language. *Studies in second language acquisition, 23, 527-552.*

Fraser, H. (2001). *Teaching pronunciation*: A handbook for teachers. Department of Education Training and Youth Affairs (DETYA), Sydney.

Fromkin, V., Rodman, R., & Hyams, N. (1983). *An introduction to language, 8th edition*. Beijing: Pecking University Press.

Gammon, C, S, (2006). *Infancy: Phonological development.* University of Washington, Seattle, WA, USA.

Grass, S.M & Silinker, L. (2009) (Eds.). *Linguistic perspectives on second language acquisition*. Cambridge University Press.

Grass, S.M & Silinker, L. (2009). *Second language acquisition*: An introductory course, second edition. Taylor & Francis e-library.

Herschensohn, J. (2007). Language development and age. Cambridge University Press.

Hewings, M. (2004). *Pronunciation practice activities:* A resource book for teaching English pronunciation. Cambridge University Press.

Iyabode, O. D, (2011). *Introductory phonetics and phonology in English.* Cambridge Scholars Publishing.

Jedynak, M. (2009). *Critical period hypothesis revisited*: The impact of age on ultimate attainment in the pronunciation of a foreign language (Vol. 333). Peter Lang.

Jkielshi, J.K & Gildersleeve, E. (2018). *Phonetic science for clinical practice.* Plural Publishing Inc.

Johnstone, R. (2002*). Addressing 'The age factor':* Some implications for languages policy. Strasbourg: Council of Europe.

Jones, D. (2006). *English pronouncing dictionary*. Cambridge University Press.

Josue, M.G, (2008) (Ed.). Encyclopedia of bilingual education. SAGE Publications, Inc.

Kang, O., & Ginther, A. (Eds.). (2017). *Assessment in second language pronunciation*. Taylor & Francis.

Kenworthy, J. (1987). *Teaching English pronunciation*. London, Longman.

Lenneberg, E. H. (1967). *The biological foundations of language*. Hospital practice, 2(12), 59-67.

Loewen, S &Reinders, H. (2011). *Key concepts in second language acquisition*. Palgrave Macmillan.

Long, M. H. (1990). *Maturational constraints on language development*. Studies in second language acquisition, 12(3), 251-285.

Maddieson, I., & Ladefoged, P. (1996). The sounds of the world's languages. Malden, MA (USA): Blackwell Publishing.

Maiden, M, (2014). *A linguistic history of Italian.* Routedge Taylor & Francis Group, London and New York.

Masataka, N. (2003). *The onset of language (Vol. 9)*. Cambridge University Press.

Modesti, S. (2016). *A study on teaching English pronunciation in primary schools in Italy* (Bachelor's thesis, Università Ca'Foscari Venezia).

Morillas, M. (2011). *An overview of the age factor and its pedagogical implications for vocabulary acquisition*. University of Granada. National Centre for English Language Teaching and Research, Macquarie University, Sidney.

Nikolov, M. (Ed.). (2009). *The age factor and early language learning* (Vol. 40). Walter de Gruyter.

Nunan, D. (1992). *Research methods in language learning*. Cambridge University Press.

O'Connor, J. D. (1980). *Better English pronunciation*. Cambridge University Press.

Oxender, C & Lathan, C. (2009). *New English file.* Oxford University.

Pulvermüller, F., & Schumann, J. H. (1994). *Neurobiological mechanisms of language acquisition*. Language Learning, 44(4), 681-734.

Reiterer, S. M. (Ed.). (2018). *Exploring language aptitude: Views from psychology, the language sciences, and cognitive neuroscience* (Vol. 16). Springer.

Richards, J. C. (2015). *Key issues in language teaching*. Cambridge University Press.

Roach, P. (1991). *English phonetics and phonology, second edition*. Cambridge University, London.

Roach, P. (2001). *Phonetics*. Oxford University Press, New York.

Rogers, H. (2000). *The sounds of language:* An itroduction to phonetics. Routledge Taylor & Francis Group, London and New York.

Scovel, T. (1988). *A time to speak: A psycholinguistic inquiry into the critical period for human Speech*. Newbury House Publishers. Rowley

Scovel, T. (2006). *Learning communicative competence: Insights from psycholinguistics and SLA*. Review of Applied Linguistics in China, 2, 7-29.

Shafaei, A. (2011). *Frontiers of language and teaching*. In Proceedings of the 2011 International Online Language Conference (IOLC 2011).

Slattery, M & willis, J. (2001). *English for primary teachers: A handbook of activities and classroom language.* Oxford, Oxford University Press.

Steinberg, D.D & Sciariti, V.M. (2006). *An introduction to psycholinguistics.* Pearson Longman, Great Britain.

Stevens, K. N. (2000). *Acoustic phonetics* (Vol. 30). MIT press, Cambridge, Massachusetts, London, England.

Stockwell, R., & Minkova, D. (2001). *English words:* History and structure. Cambridge University Press., UK.

Szyszka, M. (2017). *Pronunciation learning strategies and language anxiety*. Amsterdam: Springer.

Wells, J. C. (2006). *English intonation PB and audio CD*: An introduction. Cambridge University Press New York. .

Wrigh, H. H. (2016) (Ed.). *Cognition, language and aging*. John Publishing Company, Amsterdam/Philadelphia.

Yates, L., & Zielinski, B. (2009). Give it a go: *Teaching pronunciation to adults*.

Yule, *G.* (1985). *The Study of Language, fourth edition.* Cambridge University Press.

Appendix

***Learner's full name*: ……**

Learner's Age: ……..

Age of Exposure to English Language: *…….*

Number of Years Studying English: *…….*

<u>Task 01</u>: Put the following words in the right column according to the pronunciation of the underlined letter(s).

<u>Ch</u>emist – la**<u>th</u>**er – Pic**<u>t</u>**ure – sist**<u>er</u>** – wash**<u>ed</u>** – w**<u>or</u>**k – p**<u>e</u>**n – **<u>J</u>**apan – **<u>s</u>**ure – br**<u>o</u>**ther – **<u>l</u>**ight – studi**<u>ed</u>** – cook**<u>s</u>** – wat**<u>ch</u>** – read**<u>s</u>** – umbre**<u>ll</u>**a - finish**<u>es</u>** – start**<u>ed</u>** – gara**<u>g</u>**e – **<u>I</u>**taly - bir**<u>th</u>**day - p**<u>eo</u>**ple

/s/	/z/	/iz/	/d/	/t/	/id/	/θ/	/ð/
.....	.....	.....	.....	.....	.....	.....	.....

/ʧ/	/ʃ/	/k/	/ʒ/	/ʤ/	/i/	/i:/
.....	.....	.....	.....	.....	.....	.....

/e/	/ʌ/	/ə/	/ɜ:/	/æ/	/l/	/ɬ/
....	....	....	....	....	....	....

<u>Task 02</u>: Circle the silent letter(s) in the following words.

Comb - Castle - ghost - knife - wrist - sandwich - design - business - calm - column - psychology - island - guard

<u>Task 03</u>: Fill in the gaps with the word you hear, chose one word from the list.

1. Did you see the ……. You were looking for?

a. people b. pupil c. purple

2. He died at the age of …….

a. forty b. fourteen c. four

<u>Task 04:</u> In this task, you will hear the teacher pronouncing 44 pairs of words. In each pair you **tick** √ **SAME** if the pairs are pronounced the same or **DIFFERENT** if they are pronounced differently.

WORDS	SAME	DIFFERENT	WORDS	SAME	DIFFERENT
01			23		
02			24		
03			25		
04			26		
05			27		
06			28		
07			29		
08			30		
09			31		
10			32		
11			33		

12			34		
13			35		
14			36		
15			37		
16			38		
17			39		
18			40		
19			41		
20			42		
21			43		
22			44		

WORDS	S	D	WORDS	S	D
01.jam –jam	√		23. sheet – cheat		√
02.lake – sake		√	24. sink - zinc		√
03. house - house	√		25. big – big	√	
04. home – dome		√	26. fool – full		√
05. ten – den		√	27. safe – save		√
06. coat - code		√	28. rouge – rule		√
07. back – bag		√	29. live – live	√	
08. sheep – ship		√	30. choke – joke		√
09. bit – bit	√		31. class – glass		√
10. tin – thin		√	32. sleep – sleep	√	
11. west – vest		√	33. cot – caught		√

12. ring – ring	√		34. place – plays		√
13. thing – think		√	35. close – clothe		√
14. rope – robe		√	36. cup – cup	√	
15. cheep - cheep	√		37. pin – bin		√
16. hot – hut		√	38. red – led		√
17. day – they		√	39. seem – seem	√	
18. fine – vine		√	40. sin – sing		√
19. food – food	√		41. sum – sun		√
20. cash – catch		√	42. lease – leash		√
21. perch – purge		√	43. young - tongue		√
22. care - care	√				

Note. S= Same. D= Different

<u>Task 05</u>: in this task you will hear the teacher reading some tag questions with different intonation. In each sentence you select the appropriate intention of the speaker (confirm/ask).

1. You work here, don't you? Confirm / Ask
2. She is a teacher, isn't she? Confirm / Ask
3. They play baseball, don't they? Confirm / Ask
4. I'm assigned here, aren't I? Confirm / Ask

<u>Task 06</u>: Read the following sentences.

1. My father feels quite bad about it
2. Do you need any help?
3. They want you to sail the boat not sell it

Task 07: Read the following words

Word	C	I	Word	C	I
Ski			Well		
Get			Man		
Teacher			Cod		
Dentist			Bud		
Thank			Look		
Then			Full		
Sing			Feel		
File			Tear		
Ring			Phone		
Button			Boat		
Bottle			Tide		
Went			Bought		
Speak			Tail		
Cute			Steam		
Queen			Atom		
Shrink			Class		
School			Flunk		
Sheep			Strong		
Clap			Mere		
Street			Thinks		
Student			Spot		
Squint			Book		
Did					

Note. C= Correct. I= Incorrect

Task 08: **Introduce yourself to the class using the following information: First name, surname, age, origin (Jijel), job (a pupil at Fly High School), physical appearance(tall/short, fat/slim with …. eyes and ….. hair), and likes and dislikes.**

The Paragraph

My first name is ……. My surname is ……. I am (eleven, thirteen, fifteen) years old. I am from Jijel. I am a pupil at Fly High School. I am (tall, short) and (fat, slim) with ……. eyes and …… hair. I like …….. but I dislike …….

WORD	**TRANSCRIPTION**
MY	/maI/
FIRST	/f3:st/
NAME	/neIm/
SURNAME	/s3:neIm/
IS	/Iz/
I	/aI/
AM	/əm/
ELEVEN	/Ileven/
THIRTEEN	/θ3:ti:n/
FIFTEEN	/fIfti:n/
YEARS	/j3:z/
OLD	/əuld/
FROM	/frəm/
JIJEL	/dʒIdʒəl/
A	/ə/
PUPIL	/pju:pəl/
AT	/ət/

FLY	/flaI/
HIGH	/haI/
SCHOOL	/sku:l/
TALL	/tɔ:l/
SHORT	/ ʃɔ:t/
SLIM	/slIm/
FAT	/fæt/
WITH	/wIð/
EYES	/aIz/
HAIR	/hɛə/
LIKE	/laIk/
BUT	/bət/
DISLIKE	/dIslaIk/

Résumé

La présente étude tente de faire la lumière sur l’effet du facteur âge sur l’apprentissage de la langue seconde en ce qui concerne l’apprentissage de la prononciation. Pour atteindre cet objectif, et sur la base de l'hypothèse de période critique, une expérience a été menée sur trois groupes de participants d'âges différents (n = 42) à l'école de langues privée Fly High. Le premier groupe était âgé de 11 ans (avant la puberté), le deuxième groupe de 13 ans (âge de la puberté) et le troisième groupe de 15 ans (après la puberté). Les participants ont reçu un pré-test pour déterminer leur niveau précédent, puis ils ont suivi sept séances sur l’apprentissage de la prononciation avant de se voir proposer un post-test qui donne une vue d’ensemble sur le niveau d’amélioration de chaque groupe. Suivant une approche quantitative de la collecte et de l'analyse des données, il est supposé que les apprenants algériens pourraient apprendre une meilleure prononciation s'ils étaient exposés à la langue cible dès le plus jeune âge. Les résultats de l'expérience montrent qu'il existe un énorme fossé entre les trois groupes en termes d'amélioration par rapport au pré-test. Le premier groupe montre le niveau d'amélioration le plus élevé suivi par le deuxième groupe, tandis que le troisième groupe indique le niveau le plus faible. On peut donc en conclure que plus les apprenants sont jeunes, mieux ils atteignent la prononciation de la langue cible.