### IN THE NAME

OF

GOD

#### In the Name of God

We recommend This Thesis by Davood Mashhadi Heidar Entitled

## Critical Period Effects in Foreign Language Learning: The Influence of Maturational State on the Acquisition of Reading, Writing and Grammar in English as a Foreign Language

	t of the requirements for the degree English as a Foreign Language	e of Master of Arts in Teaching
Committee on Final Examination:		
1. Dr. Gholamreza Kiyani		Supervisor
2. Dr. Ramin Akbari		Advisor
3. Dr. Reza Ghafar Samar		Internal Examiner
4. Dr. Esmaeel Abdollahzadeh		External Examiner
5. Dr. Reza Ghafar Samar		Head of English Department



### Tarbiat Modares University Faculty of Humanities

A Thesis Presented for the Degree of Master of Arts in Teaching English as a Foreign Language

Critical Period Effects in Foreign Language Learning:
The Influence of Maturational State on the Acquisition of
Reading, Writing and Grammar in English as a Foreign
Language

By Davood Mashhadi Heidar

Supervisor: Dr. Gholam Reza Kiyani

> Advisor: Dr. Ramin Akbari

## DEDICATED TO

## MY MOM



WIFE

#### **ACKNOWLEDGEMENT**

Special thanks to my supervisor Dr.Gholamreza Kiani who helped me a lot and to Dr. Ramin Akbari who helped me with his insightful recommendations. Here I find the time appropriate to thank Mr. Ali Bakhshi who helped me with the revision.

#### **Abstract**

Since the 1960s the age effects on learning both first and second language have been explored by many linguists and applied linguists (e.g Lennerberg, 1967; Schachter, 1996; Long, 1990) and the existence of critical period for language acquisition was found to be a common ground of all these studies. In spite of some common findings, some issues about the impacts of age on acquiring a second or foreign language are still in controversy. While some believe in the superiority of early beginners to late beginners and the impossibility of acquiring native like proficiency in a second language after the age of puberty, others have opposite ideas. This study was an attempt to investigate the impacts of age on learning reading, writing, and grammar of English as a foreign language in Iranian context. To carry out the study, 60 Kurdish-Persian English language learners in Iran language Institute of Kermanshah were selected and their achievements in reading, writing, and the structure of English language were measured through reading, writing, and grammaticality judgment tests. Both descriptive and inferential statistics (T-Test) were used to analyze the data of the study. The results indicate that early beginners are better than late-beginners. In fact, age negatively correlates with reading, writing, and grammar learning ability.

#### **Table of Contents**

Cha	pter 1: Introduction	.1
1	.1. Introduction	.2
1	.2. Statement of the Problem	.4
1	.3. Research Questions and Hypotheses	.7
1	.4. Significance of the Study	.8
1	.5. Limitations of the study	.10
Cha	pter 2: Review of Literature	.12
2	2.1. Age and Language Learning	.13
2	2.2. First Language Acquisition and Critical Period for L1	.17
	2.2.1. Delay of L1 Exposure	.18
	2.2.2. Genie`s Case	.19
	2.2.3. The Case of Isbella and Anna	.23
2	2.3. Second Language Acquisition and the Critical Period for L2	.25
	2.3.1. Is L2 Acquisition the same phenomenon As L1 acquisition	.26
	2.3.2. Are All Late Beginners Unable to Achieve Native Like Proficiency?	.28
	2.3.3. Are All Early Beginners Able to Achieve Native like proficiency?	.31
2	2.4. Age a Deciding Factor in SLA	.33
2	2.5. Foreign Language Learning and Critical Period Hypothesis	.38
2	2.6. Related Studies	.38
	2.6.1. Studies on Morphosyntax	.38
	2.6.2. Studies on Phonology	.43
	2.6.3. Studies on Overall Language Acquisition	46

Chapter 3: Methodo	ology	49
3.1. Participants		50
3.2. Procedure		51
3.3. Instruments		52
3.4. Data Analysis	s	53
3.5. Design		53
3.5.1. Hypothese	es to Be Tested	54
3.5.2. Hypothesi	is 1	54
3.5.3 Hypothesis	s 2	55
3.5.4. Hypothesi	is 3	55
Chapter 4: Results a	and Discussions	57
4.1. Introduction		58
4.2. Null Hypothe	esis 1	58
4.3. Null Hypothe	esis 2	62
4.4. Null Hypothe	esis 3	64
4.5. Discussions		67
4.5.1. Cognitive	Causes	68
4.5.2. Linguistic	Causes	71
4.5.3. Socio_psy	ychological causes	74
Chapter 5: Conclusion	on	76
5.1. Introduction		77
5.2. Pedagogical I	[mplications	78
5.3 Suggestions f	for Further Research	79

#### **List of Figures**

Figure 1 The Relationship Between Age and Reading Comprehension Ability	61
Figure 2 The Relationship Between Age and Writing Ability	64
Figure 3 The Relationship Between Age and Grammaticality	66

#### **List of Tables**

Table 1 Conditions of the Groups	53
Table 2 T-Test for Reading Comprehension Ability	59
Table 3 T-Test for Writing Ability	63
Table 4 T-Test for Grammaticality	65

# Chapter I:

## Introduction

#### 1.1 Introduction

The age effects on learning both first and second language learning have been explored by many linguists and applied linguists since the 1960's (e.g. Lennerberg, 1967, Schachter, 1996 Long, 1990) and the existence of critical period for language acquisition has been one of the controversial issues in the first and second language acquisition research; while, some others believe that there are still some late beginners who in spite of their old age are able to learn a second language exactly like early beginners and some cases have been reported who acquired near native like performance in different subparts of a language such as pronunciation and grammaticality judgments. According to Hyltenstam & Abrahanson (2001) this controversy remains as intense as ever. The results of SLA research are both interesting and confusing. Some make an analogy between the first and second language acquisition and hypothesize that there is also an age of onset (AO) for second language learners. To put it in another way, some applied linguists (e.g. Cook, 2001) believe that undoubtedly children are probably believed to be better at learning second languages than adults. People always know one friend or acquaintance who started English as an adult and never managed to learn it properly and another who learned it as a child and is not

distinguishable from a native; whereas, the results of some other studies indicate that adult language learners can attain native like proficiency in a second or a foreign language. That is, there are still some late beginners who in spite of their old age were able to learn a second language exactly like early beginners and some cases have been reported who acquired near native like performance in different subparts of a language such as pronunciation and grammaticality judgments.

Reviewing the studies aimed at investigating maturational constraints in SLA in general and comparing the early and late beginners' learning efficiency in particular led to some conceptualizations. One of these conceptualizations is that early beginners are better than late beginners in terms of the attainability of native like proficiency in a second language. As this issue may influence second language learning by non-native speakers in the countries in which English or another second language is taught and learned in different ways, this study is an attempt to shed light on the issue under discussion. To put it another way, it investigates whether maturational constraints have the same impacts in countries in which people have already acquired their own native language and are always communicating through their own mother tongue and

in the countries in which people have a great amount of exposure to foreign language. That is, whether the age of language learning has the same impacts on learning a second language by language learners in L1 context and those in L2 context. As significant differences between adults and children's language learning in L1 context have been reported and not sufficient study was carried out to investigate maturational constraints on learning a second language in L2 context, this study is carried out to fulfill this purpose. It is to investigate maturational constraints impacts on second language learning by Iranian language learners who usually start learning English after the age of puberty.

#### 1.2 Statement of the Problem.

As Lenneberg (1967) cited in Fromkin (1988) proposed language could be acquired only within a critical period, extending from early infancy until puberty. In its basic form, the critical period hypothesis was proposed for first language acquisition. The age at which learning begins constrains the level of ultimate attainment in second language (L2) acquisition to a great extent, too. An "earlier is better" rule of thumb captures the negative correlation between

age of learning onset and eventual asymptotic performance (Molis and Birdsong, 2001). A remarkable body of experimental data is consistent with this generalization. Most of these studies offer a maturational account of age impacts and suggest that a critical period constrains both primary-language (L1) acquisition and L2 acquisition (see Long, 1990; Birdsong and Molis, 2001).

As Johnson and Newport (1989) and Birdstron and Molis (2001) believe, several kinds of behavioral evidence would constitute support for a maturational view of the limits on L2 attainment. First, there is a significant negative correlation between linguistic performance and the age at which L2 learning begins. Significantly, this effect should be observed in cases where L2 learning begins before the end of puberty.

Second, there should be few if any late learners who perform like natives; this result would suggest biological constraints. Finally, if limits on attainment are maturational in nature, then they should apply to L2 acquisition generally. We would expect, therefore, that critical period effects and near-zero evidence of native like attainment should be observed.

Moreover, the popular belief among linguists and psycholinguists has been that children are far superior to adults at L2 learning. Krashen, Long, and Scarcella (1979), having reviewed previous studies on the

age factor in second language acquisition (SLA), argue that amidst the contradictory findings three generalizations could be made regarding the relationship between the age, rate, and eventual attainment: 1) Adults proceed through early stages of syntactic and morphological development faster than children; 2) Older children acquire faster than younger children (again in early stages of syntactic and morphological development where time and exposure are held constant); and 3) Acquirers who have natural exposure to second languages during childhood generally achieve higher second language proficiency than those beginning as adults. Krashen et al. (1979) sum up the three generalizations, tersely, as "older – is- better for rate of acquisition" and "younger-is-better in the long run" (p. 574).

Other researchers have come up with results that do not support a maturational account. For example, Bialystok and Hakuta (1994, 1999), Birdsong (1992), Flege (1999), and others have found postmaturational nonage effects. Studies such as Bongaretes (1999), Cranshaw (1997), and van Wuijtswinkel (1994) have attested significant numbers of late learners who perform like natives on various linguistic tasks. And several studies (e.g., Bongaretes, 1999; Cranshaw, 1997; Flege, 1999) suggest that results are not

generalizable. In spite of the fact that such controversy exists, there are many incidences indicating the negative impacts of maturation on native like attainment in foreign language learning. There is an assumption that learning a foreign language in L2 context may be constrained by maturation. This study is an attempt to investigate the impacts of age on foreign language learning, specifically, learning reading, writing, and grammar, by Iranian language learners who usually start learning English after the age of puberty.

#### 1.3 Research Questions and Hypotheses

To cast light on these issues, the relation between age constraints and foreign language learning will be examined. The current study will attempt to discover if differences in age produce a distinct degree of proficiency in foreign language learning. To do this, the influence of age on reading, writing, and grammar will be investigated. This study will investigate the following three questions.

Question 1: Is there a significant difference between late-beginners and early-beginners in terms of L2 reading comprehension ability?

Question 2: Is there a significant difference between late-beginners

and early-beginners in terms of L2 writing ability?

Question 3: Is there a significant difference between late-beginners and early-beginners in terms of L2 grammaticality ability?

Based on the above three questions, the following three null hypotheses will be investigated.

Null hypothesis 1: There is no significant difference between latebeginners and early-beginners in terms of L2 reading comprehension ability?

Null hypothesis 2: There is no significant difference between latebeginners and early-beginners in terms of L2 writing ability?

Null hypothesis 3: There is no significant difference between latebeginners and early-beginners in terms of L2 grammaticality ability?

#### 1.4 Significance of the Study

The study is important pedagogically. Foreign language teaching involves curriculum planning, materials preparation, and teaching methodology which, to some extent, are related to the age of the learners. If it can be proven that

there is a critical period for foreign language learning and that puberty marks the termination of this period and that the learning ability of a language decreases after this period then it is worthy that those concerned with curriculum planning, materials preparation, and teaching methodology pay more attention to age factor and its impacts on foreign language teaching and learning. If it can be proven that there is a critical period for foreign language learning, ensuring ultimate attainment, methods materials and curricula would be better to be designed with age factor and its impacts taken into account.

But in case the hypothesis posed by Lenneberg (1967) cited in Fromkin (1988) saying that language could be acquired only within a critical period is rejected, other reasons why adults usually do not achieve native like competence in a foreign language and the ways in which they can overcome the problems they face should be sought.

This study is also a contribution to the former studies done on age factor. Most of the studies done so far have considered critical period in L1 context. The number of the studies considering critical period in a second language context is also enormous. This study is aimed at shedding more light on this issue considering critical period in a foreign context.

#### 1.5 Limitations of the Study

The current study will make no effort to cope with the complicated motivational and affective aspects of foreign language learning but will be tailored to the impacts of age on foreign language learning. In considering the variables of age and setting of exposure, results for the group exposed to the foreign language before puberty are limited to educational settings such as institutes.

The context in which the investigation is being done is foreign language context. So the results would not be of any generalizability to second language context. This research is not of a sufficiently comprehensive nature to be used to redesign foreign language pedagogy. The participants taking part in this study are all native speakers of Kurdish-Persian who were students at Iran Language Institute, Kermanshah branch. The participants were from Kermanshah and the study was done in that province, too; so it is possible that the results with other participants from another province be quite different.

Because of the difficulty of checking all skills and sub skills, this study tests the impacts of age on reading, writing, and grammar, exclusively. It was not possible to have the participants from all provinces across Iran, so participants were selected from one province, Kermanshah.

To control the gender variable this study had only female participants so it