

CHAPTER ONE

INTRODUCTION

1.0 Overview

Age and language have a long history of interconnection. For centuries a perennial debate has been going on in which language was frequently referred to as a defining criteria of maturation, Singleton (1995). Informally, it is very much heard, in everyday conversations and speech, that a boy or a girl talks very well to his/her age, or that parents continually complain about their son or daughter who's nearly three, but hardly put two words together.

Serious scientific investigation began to be shaping up in the scene only by the second half of the 21st century. In 1959, two Canadian brain surgeons: Penfield and Roberts, claimed to have found evidence suggesting that before the age 9, children are able to relearn language when injury or disease damages speech area in their brains, however this capacity declines abruptly soon afterward. A decade later, Lenneberg (1967) as investigating cases of aphasic patients and feral children, discovered that early in life the human brain is characterized by a rapid growth of nerve connection that is coupled with an equivalent development of language capacity. According to Lenneberg (1967), Children maintain this capacity up until the onset of their puberty, around the age 12, but beyond this period, this capacity wanes and learning a language, then, requires some 'laboured efforts.

However, a bird's-eye view of the relevant literature reveals three major views representing the trajectory of age-learning relationship. A brain plasticity view, a biological predisposition view and an imprinting view, Asher (1967). The brain plasticity theory, on the one hand, postulates that a child's brain has a cellular receptivity to language acquisition which is controlled by a *sort* of a biological clock. With age, this biological clock changes the cellular plasticity;

thus rendering the brain unequivocally inert or mechanically inefficient to acquire an additional language in a native-like fashion. Biological predisposition, on the other hand, that mental power that enables children in all nations, by definition, to decide what *is* and *is not* possible in the grammar system of their mother tongue, Chomsky (2006). Imprinting view envisions language learning from a social vintage point. This theory claims that human children learn their language early in life very much in the way young animals do to establish their instinctive behaviour towards other animals of their species.

This study, therefore, focuses mainly on the role of age in language proficiency of Grade1 intermediate school students, early starters, *henceforth* (ESs) and grade3 intermediate school students, who represent late starters (LSs).

1.1 Statement of the Problem

Despite the early introduction of EFL programs in Saudi state schools and private schools for more than a decade now, students' general performance in this language has clearly been lagging behind, and their proficiency has been lower than expected. (Al Mahana, 2010: 69) refers to this phenomenon:

Although English syllabus in the Kingdom of Saudi Arabia is communicatively oriented, and although students in Saudi state schools receive seven years of formal English teaching.... most of them graduate from secondary school unable to use the language for communicative purposes.

Moreover, the demand of the increasingly competitive job market has geared up a massive scholarship program that dictates the need for certain level of English skills among school leavers. To this end, numerous efforts have been made; one of them is to introduce EFL instruction earlier in a child's life. This direction is best represented by private schools where English is encountered in the first day of schooling, when the child is 6. Meanwhile in state schools English was

introduced in grade 6 of elementary since 2003, when the child is roughly 12. It used to be taught in grade 1 intermediate when the child is 13. Surprisingly, the situation has been in constant deterioration every year, resisting any kind of attempts at reform. It is very much so because these attempts have missed one crucial point; they drew up facts and findings from naturalistic second language contexts and applied them to in instructed classroom situations, thinking that they will yield the same results. Reflecting on those facts and findings, syllabus designers have got the false impression that early start possesses the magic key to the Promised Land where every learner will acquire their language with perfect ease. This overemphasis and overestimation of the role of age factor has led to today's ever worsening, ever chaotic students' level of English language at both general and higher education. This study is an attempt to unravel this misunderstanding, misinterpretation and overestimation of the role of the age factor in foreign language learning.

1.2 Research Objectives

This study aims at the following points:

1. To find out which of the two groups outscore the other in terms of grammar and vocabulary?
2. To identify the differences that exists between both groups in overall performance.
3. To highlight the type of correlation between the age factor and the ultimate attainment.
4. To highlight those levels of language that is more or less critically sensitive to age.

1.3 Research Questions

This study is an attempt to answer the following questions.

1. What is the relationship between the age of onset of learning and the ultimate attainment in English?
2. What affects the learner's performance the most, the earliness or the intensiveness of exposure?
3. What's the effect of age on the learner's grammar performance?
4. What's the effect of age on the learner's vocabulary performance?

1.5 Research Hypotheses

The following predictions are postulated to be tested out against this study finding.

1. There is no significant systematic relationship between the age of exposure and the attainment in English vocabulary and grammar.
2. The 'intensiveness' of language input has more effects on learning than the 'earliness' of exposure.
3. There are considerable similarities between ESs and LSs in grammar performance.
4. There are considerable dissimilarities in terms of vocabulary performance between LSs and ESs.

1.6 The Significance of the Study.

The significance of this study comes from the fact that it tries to clarify the misinterpretation that's taking place regarding Critical Period (CP) effects in foreign language learning. It also attempts to dismantle the doubts that overshadow the question of when to start a foreign language. If proven true in naturalistic settings, CP accounts only for pronunciation, and as the aim of foreign language education is not the creation of native speakers from school learners, this study suggests that the focus should be shifted from the age of exposure to the quantity and quality of exposure in order to create a home-grown elite who speak neither British nor American English but the world variety of English.

1.7 The Study Limits

This study is an attempt to pinpoint, if there's any, effects of age on English as foreign language learning among intermediate school students in Hafr Al-Batin district of Saudi Arabia. It was conducted at the end of the second term of the school year 2012/2013. The choice of the title, **Effect of Age on the Learner's Ultimate Attainment of English Vocabulary and Grammar**, was dictated by both logic and convenience. It's logically so because by 'Ultimate Attainment' the reference is to the total amount of language competence or language intake, that these learners were able to internalize after they've been systematically exposed to that language over a given length of time. From convenience point of view, being a two-year- MA study, the time frame of study doesn't allow for a close follow-up to the learning over an extended period of time. The disparities in the average time of exposure between both groups of the study was a result of the difficulty to find, among school students of that area, students who started their learning at different points but were equally exposed to that language.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This section is particularly concerned with the theoretical foundation of this study by going through the body of literature that bears some resemblance to the present study. In this section, various views on age and its relationship to language learning will be exposed. These views are drawing from different scientific backgrounds; biology, neurology, psychology and linguistics.

2.1 The Notion of Critical Period

Critical period is defined as maturational time period during which some crucial experience will have its peak effect on learning, resulting in normal behavior attuned to the particular language to which the individual has been exposed, (Chakrabarty, Johnson & Newport, 1989). This idea indicates that language learning and other experience can better be commanded if learned within specific time period, otherwise learning will be reduced to the minimum when taking place outside this period.

The notion of critical period and how it applies to the learning of foreign languages has preoccupied not only linguists but it has also drawn attention of researchers from other non-educational and non-linguistic backgrounds, (neuroscience, cognitive science, psychology and computer science), bringing about a wide variety of experimental techniques and a widely varying theoretical perspectives. Although totally non-educational or linguistic, these perspectives have made huge impact on SL/FL education in both theory and practice.

2.2 Biological Evidence

The fact that there's a period in a human life during which language acquisition can be easy and beyond which this ability declines, is supported by evidence from biological as well as linguistic science. The concept of critical period does exist not only in man but also among other animal species. One of the most documented biological evidence in this respect is the behaviours displayed by certain birds, particularly ducks and geese. During the early days of their life, young ducks, for instance, can follow the first thing they encounter directly after hatching whether it is a chicken, people or even a mechanically moving object and can adopt it as their mother. The reason behind this behavior is that if geese were isolated from their parents right after birth, they'd identify anything as an attachment object instead of identifying a species member as the attachment object ('imprinting'), Singleton (2007). Later, when these same geese were exposed to their original parents -after a specific time period had passed- they failed to recognize them, (Chakravarty, Hakuta, 2003; Johnson & Newport, 1989). It's noticed that this behaviour of following only occurs within a certain period- after hatching- beyond this period ducklings develop a sense of fear of strange objects and retreat instead of following. Another phase- sensitive learning occurring in animal species is the vision and social attachment. Almli and Finger (1987) argued that a biological evidence for the existence of a critical period can be drawn from the case of the binocularity development in animals and man. According to this hypothesis, central nervous system cells, driven by each eye, grow and compete with each other for a place in the cortex. This competitive process culminates at a certain point in an organism's life, "weeks 4 and 12 in cat; 1 and 9 in certain monkeys and years 1 and 3 in man" (Singleton 2007:48). Moreover, Scott (1980), cited in Johnson & Newport (1989) found out another version of biologically determined critical period in dog, what he referred to as 'social attachment'. He

observed that in order for a dog to normally behave in its community and to subsequently build unlimited social relationships with other members of its species, an early attachment to one dog is vitally important. If, according to Scot's claim, a certain period of a dog's life passed with this '*social attachment*' unexercised or uncared for, a dog might spend the rest its life a total alien among its own folk! Brown (2000) cited evidence from Scovel (1988: 56), drawing analogy between the acquisition of human language and birdsong acquisition, arguing that the existence of an authentically acceptable accent is important in animal species not only for social identification, but also biologically essential for preservation and maintenance of their own species.

The development of socially bonding accent at puberty enables species (a) to form an identity with their own community as they anticipate roles of parenting and leadership, and (b) to attract mates of "their own kind" in an instinctive drive to maintain their own species.

Another classic example of the existence of critical period is the case of white crowned sparrows. If sparrows are brought up in isolation, they will sing a very crude song which has some structural similarities with the original, but bears other significant differences. However, if they are exposed to a tape recorded sparrow song within the first 10-50 days of their birth, they will pick it up very nicely, but if exposed after this time period has passed, they will continue singing the same crude song for the rest of their lives, (Chakravarty, 2003; Johnson & Newport, 1989).

In humans, many contradictory theories have been formulated, so far, as regards the biological origins of language. One debate postulates that language is a cultural creation that takes advantage of the- already- existing biological abilities. Homo sapiens, by virtue of their possession of organs whose primary functions is to serve purposes other than speech, had created language for a social purpose, in the same way they made beads and wore animal skins. Therefore, language has made the utmost use of these organs, with little overhaul, changing

them into articulatory organs, (Bolles, 2008). The other debate maintains that half a million years ago well before the breakaway of *Homo sapiens* from Neanderthals, our ancestors had developed some biological proclivity for some kind of speech. After the divide, each of the two took their language potential with them, turning it into a means of communication suitable for their time and purpose, until a fully-fledged physical adaptation took place with which language evolved accordingly. Thanks to their relatively large brain size, upright teeth, small mouth, flexible lips and larynx and pharynx that are different from those of animals, (Yule, 1986; Bolles, 2008; Chomsky, 2008), humans are biologically preordained to use language. Anecdotal evidence shows that if a human baby is raised together with an animal baby, say a kitten, in one and the same environment and both are given the same linguistic input, and the human baby will grow up speaking language, whereas the animal baby won't. To the exact contrary, if two human children from different social and cultural backgrounds are raised together, say, one from a hunter-gather society of the most primitive type, and the other born to a family of abundant wealth in an urban centre of a technologically advanced society, providing both children with the same input. Both will make up graduates of Quantum physics from the world's number one university. This is simply because normal human children, regardless of their environmental stimuli, come to life with genetic predisposition and natural readiness for languages, Chomsky (1965). Equipped with a little black box -of the sorts in planes- which Chomsky referred to as *Language Acquisition Device* or *Universal Grammar*, young children are able to acquire and distinguish human language from other sounds in the environment (Chomsky, 1965, 1972, 2008 a lecture @ Google; Brown, 2000). However, language perception and production is governed by biological timetables, in that the access to Universal Grammar-that little black box- may be lost due to brain maturation by the onset of puberty

(Penfield & Roberts, 1959; Lenneberg, 1967, 1969; Steinhauer, E. J White & J.E Drury, 2009).

It is generally believed that if a certain period in an organism's life has passed with language ability remaining dormant, by way of injury or disease, be it first or other subsequent language, it would, then, be increasingly difficult, if not at all impossible, for this organism to develop a natural language that helps them communicate normally in the speech community where that/those language(s) used, (Brown, 2000; Scovel, 1999; Johnson & Newport, 1989; De Keyser, 2000; Singleton, 2007). This evidence that SL/FL learners are likely to regularly default after puberty has formed the basis of the existence of a CP for both first and second language acquisition. Some researchers find it even tempting to refer to this as 'sensitive period' or 'optimal period', considering it as a major determinant not only in the first or second language ultimate proficiency, but also in shaping of other behavioural and social attitudes of the individual. Singleton, 1995: 4).

During development there are periods of special sensibility related to particular elements in the environment towards which the organism is directed with irresistible impulse and well-defined activity. These periods, which help the organism to acquire certain functions or characteristics, are ephemeral. In language, above all else, the transitory *sensitive* period is vital.

Particularly important to this line of argument is the research findings on the field of neurology which presents another powerful evidence in support of the existence of critical period for language acquisition and learning.

2.3 Neurological Evidence

Neurolinguistics is generally concerned with the study of neural mechanisms in the human brain that control the comprehension, production and acquisition of language. Therefore, there has been a longstanding interest among FL/SL researchers in the interrelationship between language and the brain, in order to better understand whether there are true neurological differences, in terms of

brain areas involved, between successful learner and poor learner, and what accounts for these differences.

The evidence most cited in the field of brain relationship to language acquisition, is Lenneberg concept of *lateralization*. Lenneberg (1967) suggested that a slow neurological process of assignment of functions to one side of the brain or the other begins at around the age of two up to the onset of puberty at around age of 12 after which this process comes to a total halt. During this period, all behavioural, attitudinal along with language functions are formed and gradually assigned to each hemisphere of the brain. According to Brown (2000), language and other analytical functions are located in the left hemisphere, while emotional, social and intuitive capacities are positioned in the right hemisphere. This process of assignment goes slowly through childhood years, until by the precipitous advent of puberty it comes to a total standstill. After this, language performance would become increasingly pathological and precarious.

It was observed by (Lenneberg 1967; (Krashen, 1973; Reymond; 1993; Brown, 2000; Singleton, 2007) that traumas that produce lasting and severe aphasia in adults can produce only transitory or less severe aphasia and ephemeral language loss in children. In such cases, according to Brown (2000), pre-pubescent children are said to be not only capable of recovering much quicker, but have also been found to be able to transfer language function to the right hemisphere of the brain, a process that is unavailable to post-pubescent individuals. Evidence claiming adults' inferiority compared to children's ultimately commanding an SL/FL is the progressive loss of plasticity and rigidity in the neural circuits subserving language. Penfield and Roberts (1959) suggest that as a result of loss of plasticity in the brain, it would be difficult to learn language after the age of nine, " for the purposes of learning languages, human brain becomes progressively stiff and rigid after the age of nine" (Singleton, 2007: 48).

Furthermore, Pallier et. al. (2002) conducted a brain imaging study using Functional Magnetic Resonance Imaging (fMRI) to pinpoint the cortical centres involved in response to spoken sentences. The subjects of this study were 8 Koreans who were adopted in France by French families from when they were aged ≤ 8 , and a control group of 8 French native speakers. Both groups were to respond to spoken sentences in Korean, French and other unknown languages, namely, Polish and Japanese. When the response of both groups submitted to fMRI, no significant difference was observed between them in terms of areas activated in Korean and the other unknown foreign languages- Japanese and Polish. However, there was a larger area of activation relevant to the French stimuli, and much larger scope in the control group of French native speakers than in Korean adoptees, see fig. 2.1 below.

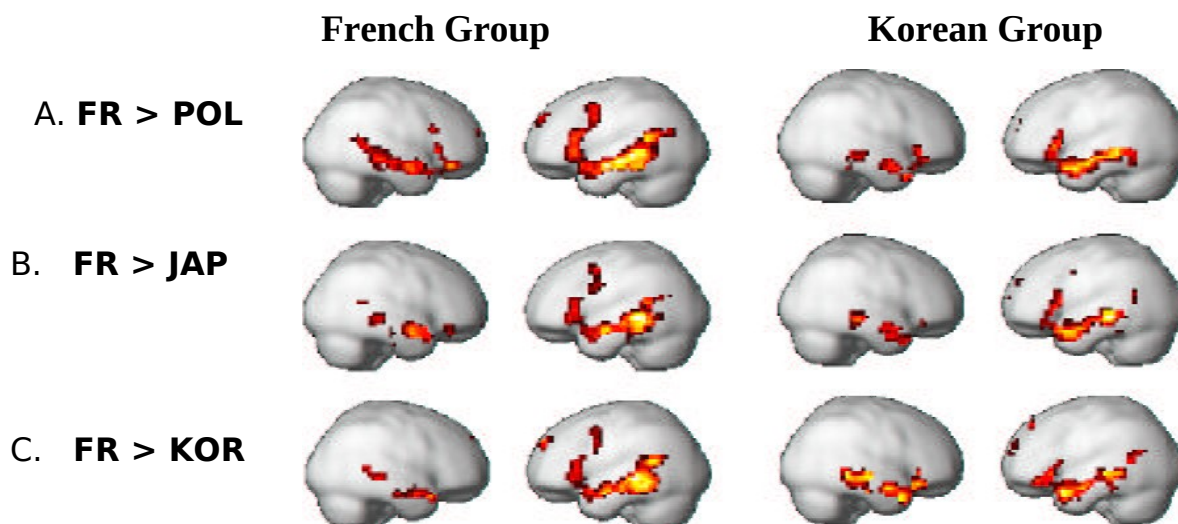


Fig.2.1 Brain images Displaying Centres of Activation during Language Stimuli.

Kim, Relkin, Lee and Hirsch (1997) applied (fMRI) to determine the spatial relationship between native and second languages in the human cortex. They found out that within Broca's area, a second language acquired in adulthood ('late' bilinguals) was spatially separated from the native language. However, when

acquired during the early childhood ('early' bilinguals), native and second languages tend to be represented in one cortical area.

Reflecting on this, it could be said that human brain can sustain its plasticity to fully develop a new language, though in a different cortical location, even after the age of seven or eight. The findings of this study strongly correlate with Penfield and Roberts' (1959) argument that proposes age *nine* to be the point beyond which language learning can be difficult if not at impossible.

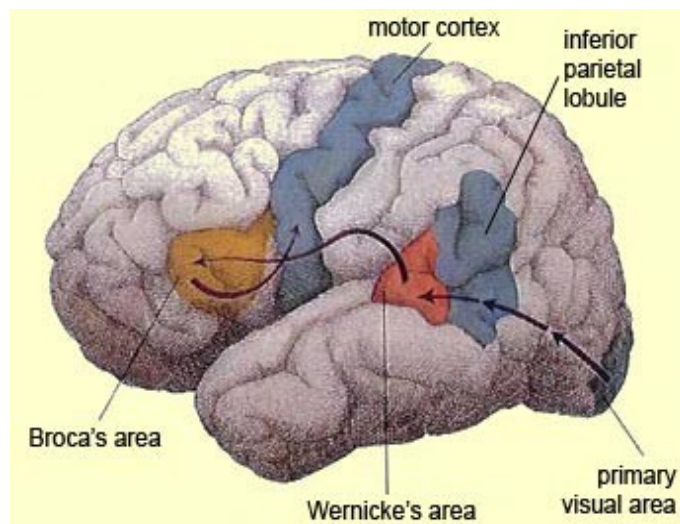


Fig.2. 2 Broca's Areas, Wernicke's area and other language- processing cortices in the brain.

Birdsong (2004) referred to a study by Brovotto and Ullman (2001) of oral production of regular/ irregular English pasts by 32 Spanish and 32 Chinese native speakers whose age of arrival (AOA) in the USA ≤ 17 , and with a minimum of three years residence. The result showed that the performance in both regular and irregular pasts was sensitive to frequency of occurrence. Further, Birdsong and Flege (2001) replicated the same study with 30 Koreans and 30 Spanish who had a minimum of 10 years residence in the USA and whose age of arrival is ranging from 6- 20 years. The result came to show that there was a strong correlation between performance on irregulars and the frequency of occurrence of each item. In other words, performance on irregular English pasts and irregular plural nouns

was found to be affected by and sensitive to both the frequency of occurrence and the age of onset of learning. This finding seem to apparently contradict with Bravetto & Ullman's study, but to reconcile and synthesize both results Birdsong hypothesizes: "for learners at stages leading up to the end state, many if not most target language forms are bits of idiosyncratic information stored in declarative memory" (Birdsong: 2004: 96).

From this statement we can deduce that regular and irregular pasts are learned with distinct neurocognitive systems; declarative memory- *our capacity to recall everyday facts*-while rule-governed aspects of language are processed by procedural memory- *our capacity of how to do things*.

Similarly, Pinker, Ullman, Corkin et al. (1997) studied cases of neurological patients with Anomia-*an impairment in word finding*- as a result of a damage to the posterior perisylvian region of the left hemisphere that leaves the person in a constant tip-of- the tongue state, unable to access his/ her mental dictionary. In first language acquisition, such patients found irregular verbs harder to remember than are regular verbs. When the same study was replicated with patients with Agrammatism – *inability to access mental grammar*, patients were found to be unable to string words together into grammatical sequences. This deficit is caused by damage to the anterior perisylvian region of the left hemisphere of the brain. With such patients, it was found that regular verbs were more problematic than irregular verbs. Accordingly, they concluded that all lexical knowledge including the sounds and meanings of words along with irregular verbs are stored in declarative memory, which is partly, if not completely, available to conscious awareness. Whereas , the act of learning rule- governed language features, such as morphology, including regular verbs inflections, and syntax are stored in procedural memory which is, to a large extent, subconscious, implicit process, thus bound by early critical period, (Ullman, 2005; Pinker, 2001; Birdsong 2001).

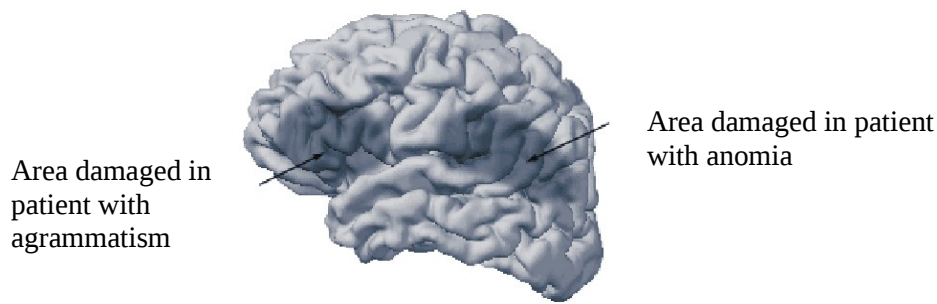


Fig.2.3 Locations of damaged areas in the brain of patient with anomia and agrammatism.

Being responsible for learning and storage of irregular forms and other semantic and idiosyncratic facts, (Birdsong 2001; Ullman 2001, 2005; Chun 2000) declarative memory is susceptible to, not to acute cut-off critical period, but a gradual decline and that all the normal cognitive aging, resulting from the declining dopamine D2 receptors, *a neurotransmitter* that occurs in a wide variety of animals including both vertebrates and invertebrates, decreased level of estrogen, (Birdsong, 2001; Ullman, 2001, 2005; Salthouse, 2004) which go slowly by a rate of 10% every 20 years of life throughout the life span, is concentrated in the region where declarative memory is located.

Declarative and procedural systems show different functioning across individuals' intra/ inter sex. Consequently, people's difference in the ability to learn or use knowledge stored in one or the other system which accounts for the individual differences among people (Ullman, 2005), is dependent on how much dopamine D2 and estrogen an individual possesses. In terms of sex differences, women show an advantage over men in verbal tasks which depends, to a large extent, on declarative memory. This happens by virtue of the higher levels of estrogen in pre-menopausal women. Quite to the contrary, men are found to be more superior at tasks that are expected to be dependent on procedural memory, such as aimed throwing and/ or mental rotation (Ullman, 2001, 2005; Birdsong, 2001; Pinker, 1994).

Salthouse (2004) argued that age effects on memory, reasoning and speed are not only higher with increased age, but it also starts earlier. In a test he administered to gauge the aforementioned variables, in which he had to test 1424 adults, the result showed that “performance of adults in their early 20s was near 75th percentile in the population, whereas the average for adults in their early 70s was near the 20th percentile.” (Salthouse, 2004: 141)

In adults SL/ FL learning contexts, especially pedagogical ones, according to Ullman (2005) adult second language learners can learn both lexical and rule-based knowledge with a single cognitive system; the declarative memory. This may be due to many factors, the first one being that the competitive nature of both cognitive systems attenuates as the procedural system subsides by around puberty, leaving the scene to the declarative system to act alone enhanced by the high level of estrogen (Ullman, 2005; Campbell and Alberts, 1972; Di Giulio et al. 1994; Fredrikson, 2000). Second, procedural memory is constrained by biologically determined critical period (Ullman, 2005; Birdsong, 2001; Fredrikson, 2000), therefore its chances to maintain implicit learning after certain maturational age seem to be slightly slim. Thanks to their heavy reliance on declarative memory, second language learners have ample opportunity to ultimately attain high level of proficiency. Additionally, the fact that procedural memory system does not always switch off suddenly and at once, as people can still learn motor skills which are procedural-system specific, can also give hope that ultimate attainment in second language can be achievable even somewhat later in an individual’s life (*ibid*). Then, with constant practice, the declarative- second- language grammar can develop into a procedural- first- language grammar, a hallmark of ultimate attainment. This same ‘ constant practice’ that tempted the behaviourists, more than half a century ago, to devise the ‘ Audio-lingual method’ in SL /FL teaching of which learning and relearning is a major characteristic. The following section

will be about how psychology contributes to and impacts SL/ FL theory and practice.

2.4 Psychological evidence

The learning, remembering and the use of a second language and psychology can be viewed in the light of three major schools of thought; the behaviouristic viewpoint by B. F Skinner, the cognitive theory represented by Piaget and Ausubel, and the constructivist, humanistic approach developed by Carl Rogers and Krashen.

Behaviourism became a key strand of psychology in the twentieth century. It endeavours to explain human behaviour by studying observable responses to environmental stimuli. It was proposed by such psychologists as B. F Skinner and Ivan Pavlov, who viewed human behaviour as interconnected chains of stimuli-responses, “emphasizing conditioning, building from the simplest conditioning to more and more complex behaviours” (Demirezen: 1988: 137). Each stimulus is a producer of a response and each response is an initiator of another stimulus, and the list goes on. Pavlov, for example, trained a dog to salivate to the tone of a tuning fork, until, by repeated occurrence; the dog formed a conditioned response. This later came to be known as the *Classical Conditioning*. Skinner developed *Operant Conditioning* which accounts for all of human learnings and behaviours that aren’t directly elicited by identifiable stimuli. For instance, we cannot identify a stimulus that leads a baby to walk or sit down. Naturally occurring consequences can also be said to reinforce, punish, or extinguish behavior and are not always delivered by people.

This theory of psychology gained wide recognition in the field of SL/FL during the 1950’s. The audio-lingual approach which was a reaction to the grammar- translation method was a legitimate offspring of this school of thought, *behaviourism*. According to (Brown, 2000; Ausubel, 1964; Demirezen, 1988) the audio-lingual approach was contrary to the mentalist grammar- translation method

in almost every thing; putting huge emphasis on rote learning of structures, learners have to rely on unanalyzed chunks with little or no attention being paid to meaning. It also gives a high priority to the spoken language over the written form, in that it recommends teachers to present the spoken language first, and in its natural speed rendition of the native speaker.

Cognitive psychologists, on the other hand, view second language learning as developing better the earlier is the onset of exposure. Capitalizing on the innate language learning ability that children seem to have, cognitive psychologists propose that age 11-16 is the optimal time to begin an SL/ FL, after that period the ability to learn languages rapidly declines (Piaget 1973; Brown, 2000) viewed the effects of age on second language learning as occurring at puberty (age 11), a period when a person becomes capable of abstraction, transcending from concrete and direct experiences and perceptions to the most intricate and mental ones. Tolerant to contradictions and indifferent to ambiguities as they are, young children don't realize the enormous complexities of learning a language, rather, they are found to soak it up subconsciously and effortlessly, a phenomenon that can be indicative of superiority of children over adults in second language learning. This tolerance to ambiguity and contradictions wears away by the age of 14 or 15. According to Piaget, when the need for resolution of these contradictions dictates an awareness of cultural identity and self-consciousness, it then renders learning an additional language cognitively overwhelming. This proposition is in clear mismatch with Penfield and Lenneberg's line of argument proposes that language learning capacity waxes and wanes from the age of two until totally halts by the onset of puberty at age 12, while Penfield and Roberts propose age nine as a cut-off point of CP.

It is this egocentricity in adults that Guiora (1969) referred to as *language ego*, which serves as a defensive mechanism to protect one's first language identity from falling prey to the frightening experience of foreign language

learning. Guiora (1969) points out that “the language ego may account for the difficulties that adults have in learning a second language”,

Krashen (1982) referred to these attitudinal factors learners display towards the language being learnt as *Affective Filter Hypothesis*. Krashen suggested that three affective factors are of key importance to the second language acquisition.

(1) *Motivation*. Performers with high motivation generally do better in second language

Language acquisition (usually, but not always, "integrative"

(2) *Self-confidence*. Performers with self-confidence and a good self-image tend to do better in second language acquisition.

(3) *Anxiety*. Low anxiety appears to be conducive to second language acquisition, whether measured as personal or classroom anxiety. (Krashen: 1982: 31)

On the other hand, unlike children, adults possess vast native- language vocabulary stock especially with regard to abstract concepts, a high self-consciousness along with an enormous intellect capable of accommodating complex body of knowledge. This intellectual capacity besides being a hallmark of successful learning in general, it, in particular, is a precondition conducive to second language success. Still more, instances of successful adults who are in full realization of what they are going through, to the extent of devising linguistic tactics and strategies to make up for intuitive learning, presents another substantial evidence for adults excellence in human learning in general, and second language learning in particular. These advantages offer some comfort to those calling for adults’ superiority. Ausubel (1964) argued that the inability of adults to learn a second language to the same level as children was particularly due to popularity of the defunct audio-lingual method of the 1960’s, which maintained features that are, by and large, inappropriate for adults. Due to its overemphasis on rote learning, audio-lingual method was tailor- made for children, for its assumption that second

language learning, both in adults and children is merely a process of rote verbal learning. It requires of learners to memorize in a parrot- fashion phrases, sentences and dialogues without knowing their meaning. This may be, to some extent, acceptable in children learning a second language, but not necessarily the case with older learners to whom awareness of syntactic and lexical structures mean a lot more than just verbal habit formation, (Ausubel: 1964: 421)‘In adults this awareness, particularly in second language- learning, exists on a much more explicit and abstract basis, and hence meaningfulness in such learning is an even more important consideration than in children.’

It has, then, become a default setting in second language learning, perpetuated by methodological fallacies, that children are indiscriminately superior to adults, in all respects. Whereas, the constructivists (Brown, 2000; Rogers, 1983; Ausubel, 1964) argue that given a nonthreatening environment, and the context is properly set up, people, irrespective of their age, would fulfill their real learning potential up to the zenith of its heights. It is this constructivist concept that we will be discussing in following section.

The basic tenets of constructivism is that learners learn by doing, rather than by observing things being dictated to them from a superior vantage point of the teacher (Brown 2000; Mathews 2003; Witty, 2007). Collaboration and peer criticism are key elements in provoking learners to reach a new level of understanding. This method requires of teacher to encourage learners to engage in dialogue with the teacher on the one hand, and with one another, on the other. By so doing, the teacher’s grip on classroom activities is loosened to the minimum, rendering his role to be of a mere supervisor, (Brown: 2000: 90) maintains:

“Teachers, to be facilitators, must first be real and genuine, discarding masks of superiority and omniscience”

In order for an effective and meaningful learning to take place, teachers should not only create an atmosphere conducive to learning, but they should provide a

high quality input, as well, (Ausubel, 1964; Piaget, Witty, 2007; Rogers, 1983; Mathews, 2003). This is what Krashen (1982) referred to in his *Input Hypothesis* as *comprehensible input*. In his hypothesis, Krashen (1982) suggested that acquisition is not children's monopoly, adults can, nonetheless, acquire some aspects of SL/FL to high levels of proficiency, but in order for that to be successful, the input should gradually be manipulated to go by the rate of $\{i+1\}$, given that $\{i\}$ is the learner's current level of understanding, and $\{1\}$ is the new item to be learned. Krashen maintains: "We acquire by understanding language that contains structure that is beyond our current level of competence ($i+1$). This is done with the help of context or extra- linguistic information." (Krashen 1982: 21)

Despite the differences in their scientific backgrounds, the constructivists, according to Mathews (2003), agree on the stage- based theory, that children exhibit different interests at different stages. Thus, during the infancy the predominant activity involves emotional contact, at age two the child is involved in object manipulation, from ages three and seven role playing develops, and from ages seven and eleven years formal study in school occurs." (Mathews: 2003: 54)

We have so far pursued the body of evidence relevant to the effects of age on language learning, retrieval and production. We have also seen how researchers from different scientific disciplines give their accounts, interpretations and rendition of age-related effects on the ultimate attainment in language. The following section will be dealing with how linguists perceive the age factor in relation to SL/FL learning contexts.

2.5 Linguistic Evidence

Since it was applied in the field of SL/FL, CPH has been met with varying degrees of reception, ranging from hot, impassioned acceptance to absolute rejection, and between the two extremes, there is spectrum of intermingling shades. Even one researcher might, at a time, express different views regarding age relationship to learning that he'd find uneasy to compromise later in their career.

For instance, Singleton (1995) explained that his views about CPH have changed dramatically in his later research from what he conceived about it initially.

Research on age-related issues can be divided into three main strands; research in favour of the age factor led by Penfield & Roberts, Lenneberg and Johnson & Newport. Reflecting on research findings on neuroscience and biology, these researchers firmly believe that a person capacity to learn languages would totally dry out by about the onset of puberty. On the other extreme there's this version of CPH pursued by another handful of researchers notably Hakuta & Bialystok, Marinova et al. and Ausubel who all categorically disclaim age factor of any virtue other than the young start will increase the overall time of exposure. While on the middle ground stand Singleton, De Keyser, Krashen, Scarcela & Long who aren't for or against the age factor, but who quite believe in the fact that people of different age can bring different advantages to their learning experience.

2.5.1. The Age Factor and SL/FL Morphosyntax

Those researchers who made a strong statement in favour of CP, argue that CP applies to L2 acquisition across the board, claiming that there is 'a biologically determined period of life when language can be acquired easily and beyond which time language is increasingly difficult to acquire', (Brown 2000:53). Penfield and Roberts (1959) proposed, as was stated earlier in the biological evidence, that age *nine* is the point beyond which human brain would become progressively stiff and rigid to acquire languages, and that: "when languages are taken up for the first time in the second decade of life, it is difficult ... to achieve a good result." (Penfield & Roberts, 1959:255). They generated their evidence from cases of children with traumatic effects and feral children- like Genie- who were brought up in rather uncommon circumstances. Eric Lenneberg, the founding father of the concept, didn't only believe in the existence of CP, but argued that it has an onset and offset. Accordingly, it roughly starts at age two, (Singleton, 1995, 2007; Lenneberg, 1969) coinciding with the lateralization and it concludes at 12, by the onset of

puberty when lateralization is totally complete. Furthermore, Johnson & Newport, 1989; Singleton 2007), suggested that there's a limited maturational period up to age 7 which is very favourable to learn a language, and a second phase starts from age 7 to the onset of puberty during which language learning capacity declines, and beyond which there is a very sudden deterioration in language learning capacity. Long (1990) lines up with this view to say: "there's a limited developmental period during which it is possible to acquire language, be it L1 or L2, to normal native- like level. Once this window of opportunity is passed, the ability to learn language declines", (Birdsong 1999: 1). This line of research pursues the biological evidence presented by Penfield, Roberts (1959) and Lenneberg (1967).

2.5.2 Age Factor and SL/FL Lexicon

The interdependence of lexis and morphosyntax makes it extremely uneasy to draw a demarcating line between the two. Even lexicographers, according to Singleton and Lengyel (1995), find it constantly confusing as to how to integrate grammatical information relative to particular words in dictionary entries.

With regard to SL/FL vocabulary learning, there's no available evidence as to suggest whether or not vocabulary is acquired in the same fashion as are morphosyntax and phonology. Singleton and Lengyel (1995) referred to Yamada et al. (1980) who conducted a study to investigate the vocabulary learning ability of 30 Japanese intermediate school pupils. Subjects were distributed into 3 groups according to their age (10= 7- years- olds, 10 = 9- year's olds, and 10=11- year's olds). Each was given a list of forty English words. Each word was represented in an associated picture. The result of this study revealed strong age effects on learning.

Furthermore, Salthouse (2004) tested a number of 1,424 subjects to see whether vocabulary learning capacity is susceptible to aging. Subjects had to do multiple choice tests, choosing the best synonym from a set of five alternatives. The result indicated that performance was higher with increased age until about mid 50s, after

which it either remained stable or slightly declined. Hellman (2008) investigated the role of age in the eventual lexical attainment in adult on-set second language acquisition; he found out that the ability to learn vocabulary remained intact even for individuals learning a second or foreign during the third or the fourth period in their life. This, and other documented evidence, shows that people passing their critical period would experience certain degree of difficulty in learning language aspects like: morphology, syntax and phonology, but not vocabulary and semantic processing, suggests that vocabulary knowledge increases with age, and it goes as life goes, therefore, all mentally healthy individuals will go on learning vocabulary throughout their lifespan, seeing no point before death when their ability to learn vocabulary ceases to function!

2.6 Previous Studies

Evidence supporting the claim made by CP proponents comes from Johnson & Newport's (1989) study. This study has been the most quoted in the field of age-related SL/FL learning over the last thirty years. It was designed to measure the performance of 46 subjects of Korean and Chinese language backgrounds, who arrived in the USA between ages 3-39 years, and had unbroken stay in the USA for a minimum of three years prior to the test time. All subjects had five years of exposure to English from native speakers. Subjects were divided into two groups according to their age of arrival in the United States. The first group represents early arrivals which were composed of 23 subjects, 12 males and 11 females, who arrived in the United States before age 15. The second group representing late arrivals and consisted of 23 subjects; 17 males and 6 females and who were over 17 when they arrived in the United States. The two groups had to do grammaticality –judgment test consisting of 276 questions testing 12 types of morphosyntactic rules. The results of this study showed that there's a strong negative correlation (-.77) between the age of exposure and ultimate attainment and that early starters outperformed late starters in all types of morphosyntactic

rules. However, the capacity to learn language in adult learners doesn't switch off at once, either. Instead, there's a gradual decline with the increased age, reaching its peak by the onset of puberty, stabilizing soon afterwards.

De Keyser (2000) replicated Johnson and Newport's study with a group of 57 adult Hungarian native speakers. They divided the subjects into two groups; younger group represented those who arrived in the USA before they were 16, the older group included those who arrived after the age of 16. All subjects had unbroken residence in the USA for at least ten years. This study was designed in principle to do two things; to verify the validity of Johnson and Newport's findings that lent a strong support to the CPH notion. Second, to test Bley-Vroman's (1988) *Fundamental Difference Hypothesis*, which states that, unlike children who learn language almost completely through implicit mechanisms, adults have largely lost this capacity and have to learn languages reflecting on alternative mechanisms, such as problem-solving. The result was not only congruent with Johnson and Newport's but it was also found that verbal analytical ability has as much effects upon ultimate attainment as did the age of first exposure.

Conversely, the claim for CPH, however, has been counter-evidenced by researchers finding methodological and experimental flaws in the strong version of it. One such flaw is that the claim put forward by Penfield (1959) and Lenneberg (1967) had no direct evidence of people failing to learn their native language or languages they encounter subsequently. Instead, the only evidence it depends on for its claim were cases of feral or aphasic children after recovery. As for Genie, a girl who was isolated from language input and from human contact from the age of twenty months until her discovery at the age of thirteen years and seven months after experiencing extreme deprivation and abuse. This evidence was found by many as lacking credibility, for the circumstances under which Genie was found made it hard to predict whether her inability to produce normal speech was due to the switch-off of her mental faculty of speech or due to the

deplorable health and appalling nutritional conditions she was doomed to endure (Burstall, 1975; Sean, 1993; Curtiss, 1977; Johnson & Newport, 1989; Brown, 2000; Ausubel, 1964; Snow et al. 2000).

In line with this, Hakuta, Bialystok & Wiley (2003) found evidence relegating the role of age as the-only- determinant factor. They conducted a study in 1994, the largest single study on the field, collecting its data from USA general census of 1990. They used response from 2.3 million immigrants from Chinese or Spanish language backgrounds. The result showed that the effects of the level of education in the ultimate attainment were higher and larger than those of age of first exposure. They further concluded that when there were such age- related effects, they occurred only in some structures where there were typological differences between L1 and L2, in their case English vs. Chinese/Korean, and in minor areas such as; (determiners, plurals and subcategorization of verbs), (Marinova, Marshall, and Snow, 2000). They maintained that the decline in ultimate attainment did not occur at cut-off points, as it was claimed by Penfield (age 9) or Lenneberg (age 12) or Johnson and Newport (age 7), rather, it was found to be occurring at age 20 and at a stable scale throughout the life span of the individual.

Snow and Hoefnagel-Hohle (1978) studied longitudinally the naturalistic acquisition of Dutch by English speakers of different ages. The subjects were tested 3 times during their first year in Holland, with a test designed to assess several aspects of their second language ability. It was found that the subjects in the age groups 12-15 and adults made the fastest progress during the first few months of learning Dutch and that at the end of the first year the 8-10 years olds and 12-15 year olds had achieved the best control of Dutch. The 3-5 year olds scored lowest on all the tests.

Moreover, Stern, Burstall, & Harley conducted a study of 17,000 British children learning French in school context. The result indicated that, after five

years of exposure, children who had begun French instruction at age eleven performed better on all tests of second language proficiency than those who had begun at eight years of age. The investigators concluded that older children are better second language learners than are younger ones.

This argument has also been supported by another line of neurological evidence that claimed to have found more right- hemispheric operations to support language learning even after the offset of puberty, Brown (2000) quoted Obler (1981:58) as saying: ‘in second language learning, there’s significant right hemisphere participation and this participation is particularly active during the early stages of learning the second language’. Curtiss (1977) claimed that people depending on their right hemisphere can have certain characteristics that distinguish their learning from that of those depending on their left -language dominant hemisphere. These learners possess a language learning system that has the following components: good deal of vocabulary abilities, better semantic than syntactic abilities and better comprehension than speech.

Marinova, Marshall and Snow (2000), argued that the biggest fallacy about today’s CP is one of misattribution and misconception, they said this as referring to pro- critical period neurologists, e.g. Kim et al (1997) in (Marinova, Marshall and Snow 2000: 14)

Given the glamour of neuroscience and the concrete nature of neurophysiological studies, their conclusions have readily been accepted by SL/FL community. However, neuroscientists have often committed an error of misattribution, assuming that differences in the locations of two languages within the brain or in speed of processing account for differences in proficiency levels and explain the poorer performance of older learners.

On the other hand, some researchers stand on a rather intermediate ground between the two extremes, claiming that CP does exist and can have a role to play in learning languages but that role concerns the lower-order processes. Walsh and Diller (1981:18) maintained that ” lower- order processes such as pronunciation are

dependent on early maturing and less adaptive macroneurological circuits, which make foreign accent difficult to overcome after childhood', (Brown 2000:56). Singleton (1995) reconciling all the body of contradictory evidence on CP, proposed that *younger= better in the long run*, not *the younger= the better* in all circumstances and over any time scale. This standpoint better epitomizes in Krashen, Long and Scarcella's (1979) statements that generally summarize the literature on age-related issues, representing a quite moderate version of CP. It postulates:

- 1) Adults proceed through early stages of syntactic and morphological development faster than children (where time and exposure are held constant.)
- 2) Older children acquire faster than young children (again in early stages of morphological and syntactic development where time and exposure are held constant.)
- 3) Acquirers who begin natural exposure to second languages during childhood generally achieve higher second language proficiency than those who begin as adults.

2.7 Summary

We have so far seen the differing views regarding the role of age in SL/FL proficiency. Different types of evidence have been presented from a wide variety of scientific disciplines; of neurological, cognitive, psychological and linguistic background. Among these views there are some researchers who support the notion of CP, while others categorically reject the whole idea; each has their evidence of claim. The relation of age to learning of syntax, phonology and vocabulary has been discussed according to experimental studies.

To conclude with, literature on CPH leaves us at a crossroads; stories of people taking up languages after puberty but dismally fail to learn normally, along with documented evidence of cases of people who started their language

after their puberty but have attained a native-like competence leave us in great dismay. Brown (2000), for instance, mentioned ‘Henry Kissinger Effect’, as referring to the US former secretary of State, Henry Kissinger whose foreign accent is noticeable but that did not impede him from acquiring a high proficiency in English, yet who is clearly very proficient to the same level of native speaker. One more classic example is Joseph Conrad, who began to learn English at the age of 21, but whose novels and short stories were classified among the world classics, despite the incomprehensibility of his speech. Furthermore, in everyday life we see on television interviews people who speak with clear foreign accent, a sign of a late start, but who are able to express the deepest of their thoughts from the back recesses of their minds. However, the increasing evidence coming from everyday classroom observations showing late starters struggling in vain with their English is a discouraging element that disturbs the rosy image. These contradicting instances put the very credibility of CP to constant questioning. Whatever it is, there’s a big question that the mainstream research has left unanswered; what is the relationship between age factor and learning success of those who have only classroom exposure to foreign languages? This is the very question to which this study is endeavoring to find answer.

CHAPTER THREE

METHODOLOGY

3.0 Introduction

The primary aim of this study is to investigate the morphosyntactic and vocabulary knowledge of intermediate school students to determine the relationship between the age of first exposure and the ultimate attainment in EFL, through grammaticality judgment and vocabulary tests. Tests of vocabulary and grammar were designed so that they cover a wide range of the most circulated grammar and vocabulary items regarding EFL instructed programmes. Data are analyzed using descriptive statistics methods, namely Statistical Package for Social Science (SPSS) to calculate the means, standard deviation and cumulative percentages in numerical format and graphic designs, to allow the most in-depth analysis possible of data.

The assumption here is that in instructed EFL contexts, where affective and environmental variables are held constant, age may not be a predictor in its own right of a learner's success or failure. It can be one element of success if and only if it's coupled with other variables; length of exposure and quality of input. Unlike EFL immersion programmes where learners are either partially or completely integrated into the target language community, in instructed programmes learner's age of start doesn't seem to lend any particular force to their ultimate achievement. Instead, success or failure in such programmes can, to larger extent, be determined by a whole host of other variables; attitudinal, cognitive and affective, (Krashen 1981; Mc Laughlin, 1992).

3.1 Subjects

This study takes 62 intermediate school students as subjects whose vocabulary and grammar performance is to be investigated. They were divided into two groups; (Grade1) 31 subjects and (Grade 3) 31 subjects. They began learning

English at 6 and 12 years of age respectively, representing two age groups: children and early adolescents; two crucial and controversial points in all CP accounts. Both groups of learners have learned English at school, taught by non-native English teachers who hold BA in English from Saudi, Egyptian or Sudanese universities. All subjects have never been exposed to the language informally or otherwise in any other contexts outside school.

3.1.1 Early Starters (ESs)

This group is composed of 31 first graders, representing the early starters-henceforth ESs-who attend private school, where English learning is always started on the first day of schooling, when children are 6 years of age, carrying on with two- 45-minute classes a week through their entire primary school years, until they were in the first grade intermediate- at the time of test. By the end of their elementary school, these learners will have spent a range of 288 instructional hours distributed over a period of six school years. When they entered intermediate school, classes were mounted up from only 2 classes, 1.5hour, a week in elementary to 4 classes, 3hours a week in intermediate school. By the end of their first year intermediate, they have studied 96 additional classroom hours, added to the 288 of elementary they will have, therefore, a total amount of exposure of 384 hours, at the time they were tested. Their age of onset of learning (6 years) indicates that they were in the midway through their CP when they could have still maintained their brain plasticity (Penfield and Roberts, 1959) and lateralization is slowly taking shape in their brains, (Lenneberg, 1967). However, by Krashen and Pinker's calculations these learners are right on the top of the hill of their CP where lateralization is totally complete, (Hakuta, Bialystok & Wiley, 2003). Table (1) below describes the distribution of hours of instruction over the course of the whole school programme.

One criteria of choice in this group is that a participant should have continued learning without stopping throughout elementary school years. It happens sometimes that a learner might start in a private school, continuing for two or more years, then drops out and joins a state school to find English programme has not yet started there. Break reduces the amount of exposure required for a participant. Another criterion of choice is that a participant should have stayed in one and the same school over period of seven years prior to the test time; from grade1 elementary through grade1 intermediate. Changing school, teachers, environment, colleagues and the general atmosphere of learning may make a difference in the learner's ultimate achievement. The third condition is the choice of school itself. The two schools that were chosen for ESs are ones that represent the model of private education in the region where the study took place. In those schools, lessons of all subjects, English is no exception, are mostly carried out using OHP (Over Head Projector) to show flash cards, power point slides and audiovisuals. This provides an ideal context for learning which a prime prerequisite for this study is also.

Finally, it is also required that participants should range in their level of achievement in English between high to average. This is because other variables affecting learning process need to be controlled in order to see the extent to which age can affect learning. Participant's level of achievement is decided reflecting on their general school and classroom performance. More detailed understanding of the amount of exposure this group has had can be gained from table 3 below.

Table 3.1 The distribution of hours of instruction for ESs

GRADES	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 1 Intermediate	Total amount of exposure
No. of classes a week	2	2	2	2	2	2	4	
No. of hours a week	1.5	1.5	1.5	1.5	1.5	1.5	3	
No. of hours a year	48	48	48	48	48	48	96	384

3.1.2 Late Starters (LSs)

This group is also composed of 31 third graders attending government schools where English is introduced somewhat later in a child's life, at grade 6 elementary school when they were 12 years old, proceeding through third intermediate (when tested). This group represents the mainstream public school English language programme in Saudi Arabia. The onset of learning of this group- age 12- represents a cut-off point, according to the strongest version of CP, of lateralization, (see Penfield & Roberts, 1959; Lenneberg, 1967; Johnson & Newport, 1989; Singleton & Lengyel 1995).

To these researchers, age 12 is the point when lateralization is complete and CP finally comes to a total halt. Little exception to this is Johnson & Newport (1989) who proposes age 15 to be the point at which critical period ceases to function as an effective second language learning mechanism and beyond which this mechanism stabilises. At their first encounter with English, these subjects were given 2 classes of 45 minutes, 1.5 hours, a week to have an amount of 48 hours throughout grade 6. Since the outset of their intermediate school, they were exposed to English on a rate of four classes of 45- minute lessons, 3hours a week,

spending a total of 288 hours of formal classroom instruction. Added to the 48 hours of grade 6 elementary, the overall amount of exposure to English of this group is 336 hours. (See table 2 for a detailed description). Although ESs has an extended overall time of exposure 384 hour, LSs has a larger exposure mean. Therefore, the exposure mean for ESs is 54:51:06 hours, on the other hand it is 82:00:00 hours for LSs- approximately 30 hours mean difference. This explains that ESs has an extensive exposure while LSs has an intensive one.

The choice of school and of participants was also informed. That is both learners and schools are representative of schools and learners in the region and at the time this study takes place. Two schools were chosen, one of them recently moved to a new facility fully equipped with teaching and learning resources; rooms are well- furnished and equipped with OHP where students can have lessons and get access to CDs and videotapes from resources room. As for the subjects, one condition of choice that's an eligible participant should meet is that they should have unbroken stay in the same school from the time they started intermediate school level to test time. They should not also have started English prior to the time when English is officially begun in state school, in grade 6.

In particular, both groups have a virtually constant amount of exposure to English; however, they have different points of headstart. The former started learning at the middle of their CP and was tested by the offset; they were 13 years old by the time of test.

Table (3.2) LSs hours of exposure to English.

GRADES	Grade 6 Elementary	Grade 1 Intermediate	Grade 2 Intermediate	Grade 3 Intermediat e	TOTAL AMOUNT OF EXPOSURE
No. of classes a week	2	4	4	4	
No. of hours a week	1.5	3	3	3	
No. of hours a year	48	96	96	96	
					336

Meanwhile, the latter started by the offset of their CP, aged 12, proceeding towards the verge of their adulthood- aged 15 when tested. The point is to see who will eventually end up having more language in the head than the others. In addition, to see which group has advantage over the other in what level of language and/ or which part(s) of grammar rule or vocabulary area that seems to be particularly sensitive to age.

To eliminate any attitudinal factors, such as motivation, self- consciousness, and/or cultural sensitivity towards the language being learnt, subjects were carefully chosen so that only those who are motivated and whose performance profile is ranging from high to moderate should participate. This is to minimize the undesired effects and to avoid the interference of other confounding variables that would disturb the results. It has frequently been heard from some learners voicing their discontentment with learning a foreign language. Therefore, if learners of such varying degrees of motivation and of varying level of performances were allowed in, then there would be great variations and scattering test results which would render accurate interpretation difficult, leading into other performance variables. Table (3.3) below is a schematic representation of the ways ESs and LSs exposed to English since the start of their learning.

Table 3.3 description of how ESs and LSs are exposed to English.

Textbooks		ESs	LSs
International Publishers EL Textbooks	G1 ELE		
	G2 ELE		
	G3 ELE		
	G4 ELE		
	G5 ELE		
National ELT Textbooks (MoE)	G6 ELE		
	G1 INT		
	G2 INT		
	G3 INT		

3.3 Materials

Data for this study were collected using two types of tools; judgment of grammaticality test and vocabulary tests. The tests were designed mainly using the most common classroom and textbook language of everyday school life. Items tested were those that students either have learned or encountered in one context or another over their school years.

3.3.1 Grammar Test

Grammaticality judgment was composed of a set of 50 questions containing 100 statements of equally the same size and length. For each pair of statements, one was grammatical and the other was ungrammatical; and subjects had to choose the grammatical ones by marking them with a single tick (✓). Pairs in each question were apparently the same in almost everything; structure and number of words in each, differing only in one rule violation contained in the ungrammatical one. Rule

violation may be in form of inserting a bound morpheme, wrong Wh. question, or word order, as it is described below.

Each set of ten questions was designed to test the subjects' English morphosyntactic knowledge in certain area of grammar. The five rule types tested in this section were representatives of the most basic aspects of English sentence that a learner is highly likely to encounter in any instructed EFL context. In table (3) below is a description of the rule types tested in each question. These rule types are personal pronouns, present simple tense, wh. questions, regular/irregular plural nouns and adjective- noun word order. The grammatical violation is made by one of these steps, (see appendix1)

1. Incorporating two pronominal items in places where only one possibility is grammatical:
2. a) I am from Saudi Arabia. ()
b) Me is from Saudi Arabia. ()

Table (3.3) Rule Types Tested in Grammaticality Judgment Test.

Rule type	No. of questions
• Personal Pronouns.	10
• Present Simple tense.	10
• Wh. Questions.	10
• Regular/ irregular plurals	10
• Adjective-noun word order.	10

3. Adding or omitting a bound morpheme (in present simple and plural nouns). Present simple tense is especially chosen because; a) it's the first tense that students encounter in English syllabus during their early

stages of learning, b) subject- verb agreement is a phenomenon students usually confuse. Consider the following examples taken from a primary school textbook:

18. a) He never goes to school on Fridays. ()

b) He never go to school on Fridays. ()

35. a) Three mans survived the accident yesterday. ()

b) Three men survived the accident yesterday. ()

3. Incorporating incorrect Wh. question word:

24. a) Where is my book? It is on the table. ()

b) What's my book? It is on the table. ()

4. Incorrect adjective- noun word order:

45. a) that young man over there is my cousin. ()

b) That man young over there is my cousin. ()

3.2.2 Vocabulary Test

Vocabulary test was modeled around grand themes to cover a wide range of everyday life situations; (family relations, school environment, jobs and other most familiar vocabulary items). It was designed in two formats; a multiple choice format and matching format. The multiple choice format consisted of 40 questions each contained three choices (a, b and c) one correct answer and two distracters; subjects had to put a circle around the letter of the correct choice. The second part of the test was the matching format in which subjects had to match a word to its opposite in a table, (see appendix 2).

The multiple choice format covered these topics:

1. School environment vocabulary:

2. You can borrow books from the.....

- a) Library b) office c) shop.

2. Family relations:

26. My father's brother is my.....

- a) Grandfather b) cousin c) my uncle.

3. Jobs:

40. He flies planes. He is a

- a) pilot b) plane diver c) plane flyer.

In the second part of the test, the subjects had to match up opposites in a table consisting ten most common vocabulary in column (A), on the left hand side of the table, with their corresponding opposites in column (B), on the right side of the table, by putting the number of the correct items in the brackets next to each word, details of this format see the whole test in the appendix (1) at the back of this study.

3.3 Piloting the Study

To begin with, ten subjects of each group took a 12- question- vocabulary and grammar tests so that their response to the test could be detected to help form an idea could about the amount of time each test requires. The subjects were able to answer those twelve questions in about seven minutes. Although they were able to do so in a relatively short time, some sentences seemed to pose real problems,(see table.4 & 6 below for subjects scores in grammar and vocabulary pilot test). As every-day classroom observations prove, children during their adolescence or teenage years generally have a very short and limited attention span. Therefore, after consulting some teachers, who also confirmed this, pointing out further that long test formatting would allow in some undesired effects, such as fatigue,

boredom and distraction which would undoubtedly affect subjects' overall performance in the test. The researcher is now convinced that the 100- question test in vocabulary and morphosyntax has to be broken down into smaller mini-tests taken in three separate sessions, gradually increasing in density and length for each session. After the trial test, the number of questions was raised to 20 questions in the first session, then 30 questions in the second one, and finally 50 questions for the last session. To avoid vagueness and ambiguities, instructions for every question were written in both English and Arabic.

Table.3.4 Subject scores in vocabulary pilot test. The test was composed of 12 questions.

LSs voc	10	09	09	07	07	07	07	06	05	02	69
ESs voc	09	08	07	07	07	06	06	06	06	06	70

Table.3.5. shows the performance of students in vocabulary pilot test.

	Number	Minimum	Maximum	Mean	Std. Deviation
ESs vocabulary	15	6.0	9.0	7.267	1.0998
LSs vocabulary	15	2.000	10.000	7.06667	1.869556

In this test, LSs scored better than ESs in the top scores but they came lower in the bottom score. The mean score of LSs is 7.067 while it is 7.26 in ESs. This shows that ESs scored a bit higher in the overall performance while late LSs scored higher in the top marks. Table 3.5 shows the differences in the mean scores and standard deviation in both performances. The least score by late learners is 2, while the minimum for the ESs is 6.

Table 3.6 Subject scores in grammar pilot test which was composed of 12 questions

LSs Gram	11	10	8	8	6	8	8	6	4	4	73
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ESs Gram	10	7	8	6	6	8	7	8	7	3	70
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Table.3.7 shows analysis of students’ performance in grammar pilot test.

	N	Minimum	Maximum	Mean	Std. Deviation
LSs Gram	10	4.00	11.00	7.3000	2.31181
ESs Gram	10	3.00	10.00	7.0000	1.82574

3.2 Procedures

The second term of the school year 2011/2012 was the time when this test was held, that’s February 2012 to April 2012. Recruitment of subjects took place in January, 2012 and the first pilot test was held the next month, February of the same school year. Each of the three sessions took place during a school day at about 10:30, over a period of six weeks, separated from each other by a period of two weeks to allow for sufficient input of six more classroom hours. Time of each session was set in the middle of the week in order to control for two things: the first being the problem of constant absence which was persistent during the piloting. Therefore, this would have been a real problem had the sessions been taken consecutively. Second, a session to be at the middle of the week would allow subjects to be notified a day or two prior to the test time.

The subjects were not blind as to the nature of the test. Instead, they were recruited earlier before the pilot test, by being either directly told by a word of mouth or by a poster advertisement on the notice board. After giving their consent, they were informed that they had to participate in a study by taking a test in grammar and vocabulary that interested in comparing the ways ESs and LSs learn English, without, of course, being told what result was expected. However, as the main objective of this study was to test ESs and LSs language knowledge at

random, subjects were neither told what vocabulary or grammar items were expected in the test, nor were they asked to prepare or train in advance. They were, nevertheless, notified one or two days prior to the test time, lest recurrent absence should be a concern in its own.

The choice was made of subjects by spotting those with high to average profile of achievement in English tests. For those who agreed to participate, a promise of extra grades was given, in case they take the test seriously, without dropping out or cheating throughout the test proceedings. Each group took their test at their school in the same manner they take their school tests. Supervision over test-taking was made by the researcher himself. However, some colleagues helped in gathering the subjects from their respective classes, especially when the test is administered at a school other than the one in which the researcher works.

3.3 Validity

Prior to their administration in classrooms, grammar and vocabulary tests were to be given to a number of four experienced English language teachers. The teachers made their comments and suggestions in both form and content of the tests. One of the points they unanimously made was to avoid verbosity and ambiguities in test structure. The researcher was advised to make the sentences a lot shorter, easier and declarative in nature in both tests formats and to get rid of the irrelevant sentences and phrases. All of the teachers' comments were taken into account before piloting. When piloting, it became evident that some subjects still experience some degree of difficulty understanding some sentences or parts of sentences. This may be due, in part, to the fact that some haven't yet been disambiguated either by their inclusion of rather uncommon or less frequent vocabulary items or maybe they have uncommon structures. Each sentence is,

therefore, reduced to the minimum size possible, that it should not exceed a maximum of 9 words in length.

CHAPTER FOUR

RESULTS AND ANALYSIS

4.0 Introduction

As description was given of both the method and the subjects of the study, and as all the necessary procedures for carrying out the study were made, in this section, thus far, we will try to bring things into a stage of analysis. To this end, subject's performance was viewed from two broad perspectives; quantitative and qualitative. Quantitatively, the result was analyzed using four statistical measures: the mean, percentage, standard deviation and correlation coefficient. The underlying logic behind the use of each of the four measures is that a) the mean score is to see where the center of score of each group lays, b) the percentage is used to exactly locate the magnitude of error of each group, c) to see how an average subject's performance deviates from or conforms to the norm, thus giving wide/narrow individual differences, standard deviation is used, and finally d) correlation coefficient is used to scrutinize the nature of relationships among different variables of learning process. Qualitative analysis, on the other hand, was done to highlight those areas of strength or weakness that seemed to accompany each group learning style, regarding the aspects of language tested- vocabulary and morphosyntax.

4.1 Results of Vocabulary tests

4.1.1 Comparison of the mean score between ESs and LSs.

To begin with, a percentage analysis was done so that students' performance is viewed from three points; the highest, medium and the lowest score. As far as the highest score is concerned, no subject in either group got the perfect mark, nonetheless, 9.7% of ESs scored between 40 and 49, indicating that only 3 subjects out of 31 ESs have performed in a range of highly successful learners. While on the hand, 16% of LSs (5 subjects) scored in this same range, this suggests that more subjects of LSs performed in a higher range than did ESs, however, none had

scored the perfect mark. Nonetheless, as regards the body of score lying between 25 and 40, it is occupied by 64% (20 subjects) of LSs which is comparably greater than LSs, 44.8% (14 subjects). More to the point, 80% of LSs performance lies within this range (25 – 49), whereas 54.4 % of ESs performed therein.

Table 4.1. ESs Vocabulary Performance

Marks	Frequency	Percent	Cumulative Percent
15.00	1	3.2	3.2
16.00	1	3.2	6.5
17.00	2	6.5	12.9
18.00	2	6.5	19.4
19.00	1	3.2	22.6
20.00	2	6.5	29.0
21.00	1	3.2	32.3
22.00	1	3.2	35.5
23.00	1	3.2	38.7
24.00	2	6.5	45.2
25.00	1	3.2	48.4
26.00	1	3.2	51.6
27.00	2	6.5	58.1
30.00	2	6.5	64.5
32.00	5	16.1	80.6
35.00	1	3.2	83.9
36.00	1	3.2	87.1
37.00	1	3.2	90.3
44.00	2	6.5	96.8
49.00	1	3.2	100.0
Total	31	100.0	

Conversely at the lower end, a considerably good number (44.4), comparable to almost half of ESs performance kept ranging in the area falling down 50% of perfect score, compared to 19.2% of LSs who performed therein. Tables (4.1& 4.2) describe the percentage points of score relevant to the total number Of ESs and LSs. Given the quality and overall distribution of vocabulary scores, it doesn't seem that any of the two groups showed any degree of ceiling effect. That is, subjects of both groups experienced a considerable degree of difficulty, not only in vocabulary but also in grammar test.

Table 4.2. the 31 LSs vocabulary performance

Marks		Frequency	Percent	Cumulative Percent
	17.00	2	6.5	6.5
	18.00	1	3.2	9.7
	22.00	1	3.2	12.9
	23.00	2	6.5	19.4
	25.00	2	6.5	25.8
	26.00	2	6.5	32.3
	27.00	1	3.2	35.5
	28.00	1	3.2	38.7
	29.00	1	3.2	41.9
	30.00	4	12.9	54.8
	31.00	1	3.2	58.1
	32.00	2	6.5	64.5
	33.00	1	3.2	67.7
	34.00	3	9.7	77.4
	35.00	2	6.5	83.9
	40.00	1	3.2	87.1
	46.00	1	3.2	90.3
	47.00	1	3.2	93.5
	48.00	1	3.2	96.8
	49.00	1	3.2	100.0
	Total	31	100.0	

LSs mean is (30.84), which is quantitatively higher than ESs (27.23). This primarily shows LSs supremacy in vocabulary performance. However, as the mean is always affected by the extreme values fluctuation in both ends, it provides only partial view of the general performance without, of course, explaining how subjects performed within the range of score lying between these ends. Thus, dependence on the mean alone analysis would only give blanket generalizations of the actual performance. Therefore, a more screened value of the mean was obtained by computing the Trimmed Mean. A 5% from the lowest and the highest value was subtracted, so that any possibility of anomaly in the truth value of the mean is reduced to the minimum. Thus, the trimmed mean of ESs vocabulary performance is 26.77 compared to 30.62 of LSs, which is again higher than ESs. The reliability of these statistics stand out at 95% confidence interval, showing

accuracy of the actual mean as lying somewhere between 23.99 and 30.46 for ESs and between 27.72 and 33.95 for LSs, (see table 4.3 below for further details).

Table 4.3. Representation of ESs and LSs vocabulary performance in different statistical measures.

Descriptive statistics				
			Statisti c	Std. Error
ESs Vocabulary	Mean		27.225 8	1.58536
	95% Confidence Interval for Mean	Lower Bound	23.988 1	
		Upper Bound	30.463 5	
	5% Trimmed Mean		26.774 2	
	Median		26.000 0	
	Std. Deviation		8.8268 9	
	Minimum		15.00	
	Maximum		49.00	
	Range		34.00	
LSs Vocabulary	Mean		30.838 7	1.52548
	95% Confidence Interval for Mean	Lower Bound	27.723 3	
		Upper Bound	33.954 2	
	5% Trimmed Mean		30.618 3	
	Median		30.000 0	
	Std. Deviation		8.4935 1	
	Minimum		17.00	
	Maximum		49.00	
	Range		32.00	

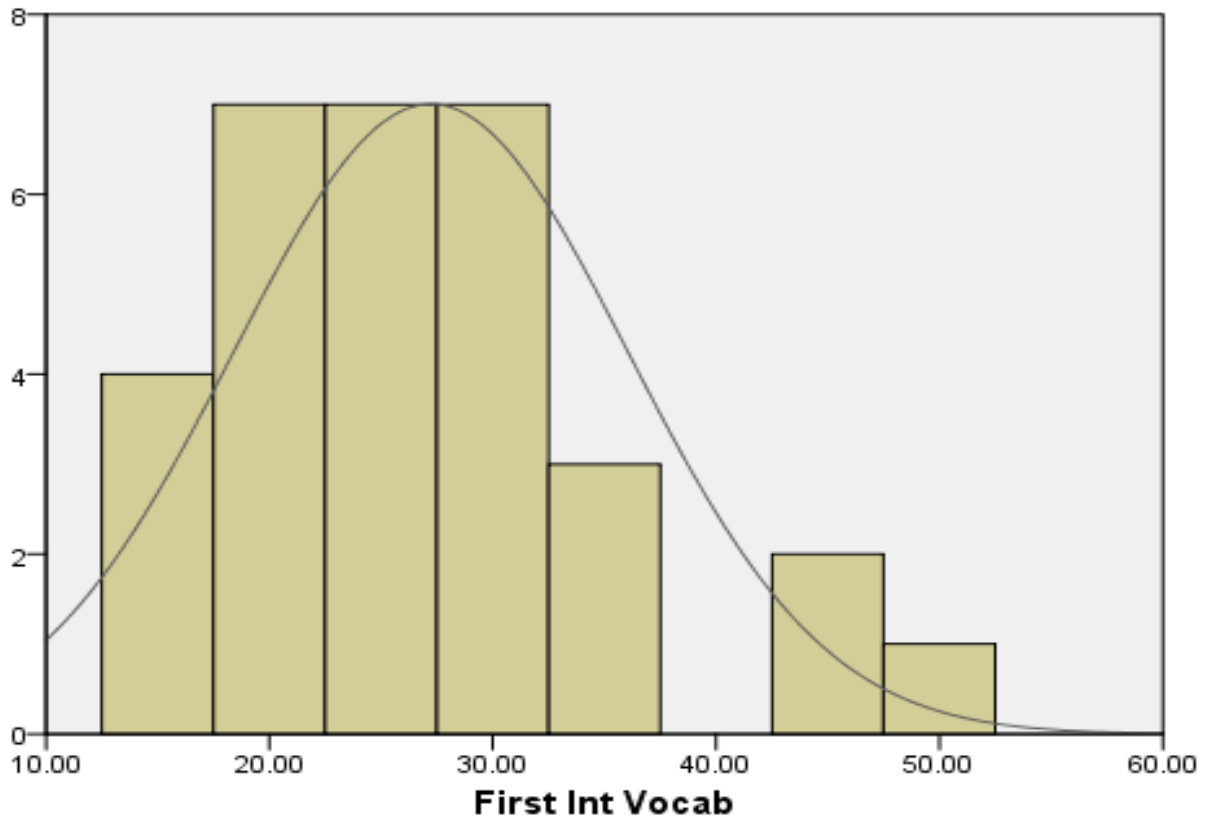


Fig.4.1. Normal distribution histogram with a line explaining the mass of scores of ESs in which the right tail of the curve is longer, and the distribution of scores is concentrated on the left of the mean. It shows that this group had relatively few high values, (positive skew).

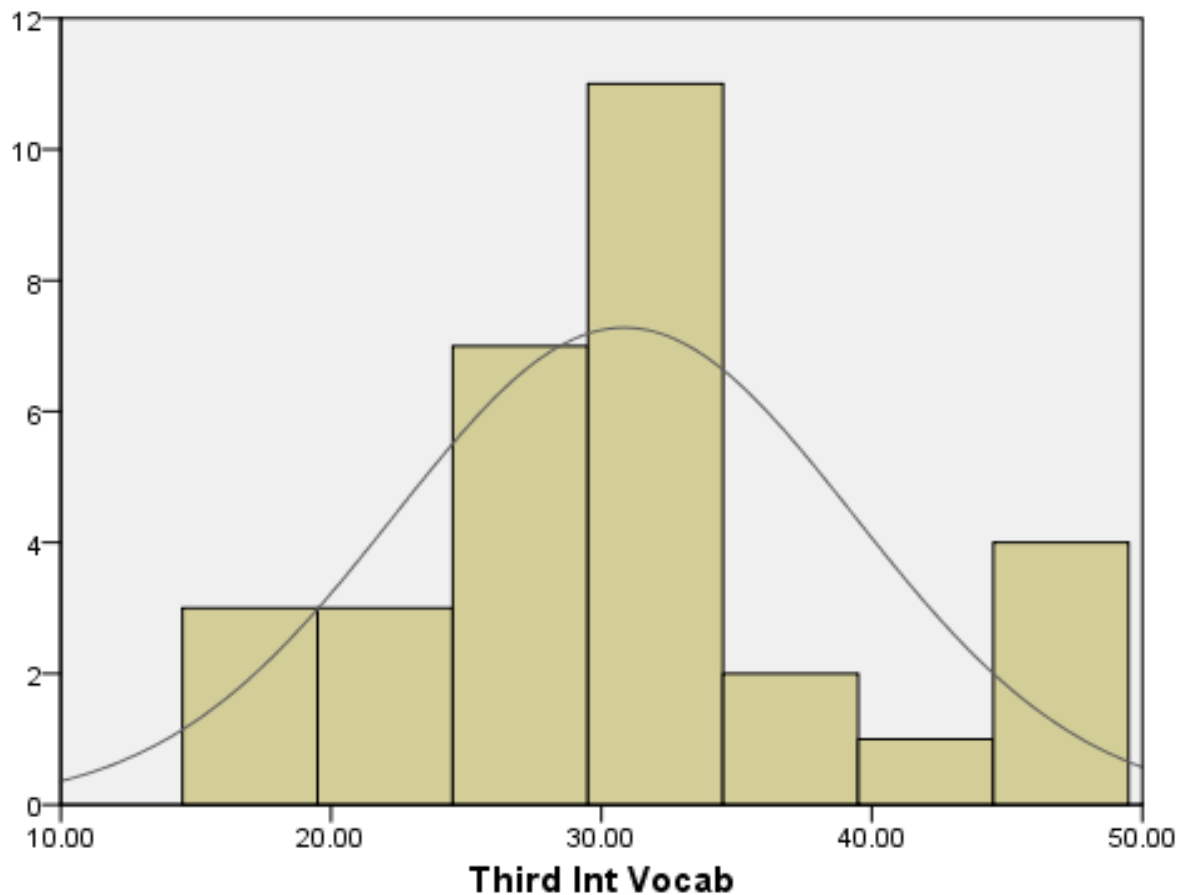


Fig.4. 2 Normal distribution explaining the distribution of LSs scores in vocabulary where both tails of the curve are virtually equal; the mass of score to the left of the mean is also equal to those to the right of it, giving a bell-like shape.

4.1.2. Comparing the Two Groups' Individual Differences

In terms of intra/inter groups differences, it can be noticed that the intra-group differences are far greater than inter-groups differences. Subjects of the same age group might perceive and process language data differently, so this may interpret the wide individual variations among subjects of the same group. Providing that these variations are a consequence of differences in perception, then, age ceases effect on how an individual learns vocabulary. One possible method of describing this; how individuals of the same group performed near or away from the centre of

scores, are by employment of standard deviation and standard error. The approximate distance away from the centre of scores that every individual of ESs is likely to display SD is 8.83, which is further away from the Mean compared to LSs SD 8.49. In the meantime, the standard error of the mean is 1.59 for ESs and 1.53 for LSs. This indicates that the variations among ESs in the level of vocabulary achievement are slightly wider and more noticeable than those among LSs. The difference is less than half a percentage point. It follows from this that when it comes to vocabulary learning there may be no significant differences between people during or after their critical period, hinting that vocabulary learning is, more or less, not among those language levels that are said to be highly sensitive to age effects. Vocabulary learning, then, is neither strictly bound up by early critical period nor is it susceptible to early fade-out. Instead, vocabulary learning would continue to develop even after an individual traverses the customary limits of their critical period.

In a nutshell, with both groups' performance having been discussed thus far, the remaining part of vocabulary analysis will be allocated to those areas in vocabulary that are likely to pose difficulty to either or both groups is to be made.

4.1.3 What are the Areas in Vocabulary that are Most Affected by Age?

As for the vocabulary items that involve potential difficulty, the magnitude of error falls on job-related areas. It is frequently noticed, throughout the test, that many individuals across groups, by definition, erred therein. Indiscriminately, both groups have mistaken the choice in job areas; 70.4%, 22 subjects, of ESs, and even greater number of late starters 80% , 25 subjects, made wrong choice with reference to this area of vocabulary. This constitutes the highest rate of error

occurrence in both groups, though, less frequent with ESs. This homogeneity would suggest that, in FL contexts, ESs as well as LSs tend to apply the same strategies of learning vocabulary and the contrast between them are not absolutely that sharp. Table (4.4) provides description of frequency of vocabulary errors according to both groups performance. Still, some areas in vocabulary seem to pose difficulty to one group but not to the other. For instance, 64% of ESs found it uneasy to successfully distinguish between *beautiful*, *delicious*, and *pretty* to fill the gap in the sentence: *My mother cooks.....meals for us*. However, this did not seem to attract the same magnitude in the LSs performance.

Table (4.4) representation of the rate of vocabulary errors as displayed by subjects of both groups

Vocabulary area	ESs error %	LSs error %
Jobs	70.4%	80%
Places	67.2%	54.4%
Clothes	60.8%	60.8%

On the other hand, *do*, *work*, and *make* were remarkably difficult to be clearly distinguished by LSs in the statement: *He for a big oil company*, in which 60.8% of LSs mistook the choice. The fact is that if this vocabulary item creates more difficulty for one age group of learners but not for the other, then this couldn't have happened by sheer coincidence, rather there may be some underlying cause for this. Two paths of interpretation could possibly be available here. Thus far, one plausible interpretation may be that it is an issue of prioritization. That, during the initial stages of their learning, people of different ages gives priority to items that best serve their learning needs while filtering out others as irrelevant. In addition, there are some vocabulary items that encompass conceptual complexities

and high cognitive load so dense as to require certain degree of brain maturation, instead of mere brain plasticity or lateralization.

4.2 Results of Grammar Test

4.2.1 Comparison of the mean scores of ESs and LSs

Regarding ESs grammar, none got the perfect score, nevertheless 9.7% scored within the range between 40-47, virtually similar to their vocabulary performance. This time, however, they had 47 as the top score and 44 as the second top score, lowering further down from than their vocabulary score,(Table 4.5 below for details) where 49 was the top score and 44 was the second top. This may, to some extent, show a degree of consistency in Ess performance.

Table 4.5. Representation of ESs Grammar Performance in Frequency and Percentages.

ESs Grammar				
Valid		Frequen cy	Perce nt	Cumulative Percent
	23. 00	1	3.2	3.2
	27. 00	6	19.4	22.6
	28. 00	3	9.7	32.3
	29. 00	3	9.7	41.9
	30. 00	2	6.5	48.4
	31. 00	2	6.5	54.8
	32. 00	4	12.9	67.7
	34. 00	3	9.7	77.4

Whereas more subjects of LSs 19.4% scored in the same range (40 -49), with 49 as the top score which is significantly higher than ESs, but different from their vocabulary performance, no one scored the full mark, however. 87% of ESs scored in the mass of scores lying between 40-25, while this range was occupied by 93.55% of LSs. At the lower end, ESs scored a bit higher than LSs by two subjects scoring at 23, while one late starter scored at 21, (see table 4.6 below for details).

Table 4.6. Representation of LSs grammar performance in frequency and percentages.

LSs Grammar				
Valid		Frequency	Percent	Cumulative Percent
	21.00	1	3.2	3.2
	24.00	1	3.2	6.5
	25.00	2	6.5	12.9
	26.00	1	3.2	16.1
	28.00	1	3.2	19.4
	29.00	2	6.5	25.8
	30.00	2	6.5	32.3
	31.00	3	9.7	41.9
	33.00	1	3.2	45.2
	35.00	4	12.9	58.1
	36.00	4	12.9	71.0
	38.00	2	6.5	77.4
	39.00	1	3.2	80.6
	41.00	1	3.2	83.9
	42.00	1	3.2	87.1
	43.00	1	3.2	90.3
	45.00	2	6.5	96.8
	49.00	1	3.2	100.0
Total		31	100.0	

The ESs grammar means score is 31.87 which is higher than the same group vocabulary mean (27.2) and also higher than LSs vocabulary mean (30.8). However, ESs scored lower than LSs in vocabulary whose mean is (34.1).

Generally speaking, it is clear from this that both groups had done better in their grammar test than in their vocabulary test, especially regarding the average score, and lower end, though not necessarily in upper ends. The 0.5% trimmed mean of early starters is 31.5, while it is approximately 34 for late starters, (see table 4.7 below for further details)

Table 4.7 ESs and LSs grammar scores in different statistical measures

Descriptive statistics				
			Statistic	Std. Error
ESs Gram	Mean		31.8710	.96580
	95% Confidence Interval for Mean	Lower Bound	29.8985	
		Upper Bound	33.8434	
	5% Trimmed Mean		31.5233	
	Std. Deviation		5.37737	
	Minimum		23.00	
	Maximum		47.00	
	Range		24.00	
LSs Gram	Mean		34.0968	1.21757
	95% Confidence Interval for Mean	Lower Bound	31.6102	
		Upper Bound	36.5834	
	5% Trimmed Mean		34.0161	

4.2.2 The Correlation between the Age and the Ultimate Attainment

As far as the overall performance is concerned, there's no statistically significant correlation has been found between the age of onset of learning and the ultimate attainment in grammar and vocabulary. The correlations between age and grammar is $r = 0.18$ and, between age and vocabulary is $r = 0.21$, $P > 0.01$. As it is now clear from these figures, these correlations are statistically insignificant, besides the fact they are close to each other. Provided that p-value is ($P > 0.01$), this would mean that there's a low likelihood of (1%) that this correlations are coming out of mere chance, see table.4. Weak as they are, these correlations would indicate that the age at which these learners were exposed to English affects neither their learning process nor their final attainment. This state of no-relation maybe due to the fact that unlike natural exposure where there's adequate language input, classroom instruction has only minimal language input available, thus it would not necessarily lead to the same profound effects of age upon learning as it should be. Since students' scores here are scattered in a wider scale, showing not much of a link between or among them, this would provide additional evidence of how trivial age- learning relationship is when the available language input is scarce. to say the least, this result might tempt one into assuming that when it comes to minimal input foreign language contexts, the age of first exposure has little or no correlation at all with foreign language learning success, and that the quality and quantity of exposure have a higher degree of predictability of ultimate attainment than the timing of exposure. In particular, this assumption, the very *raisons d'être* of this study, is further substantiated by general classroom observations that have reported no remarkable differences between those who started early and those who started late.

Surprisingly; however, a statistically significant correlation between both groups' performance in vocabulary and grammar was found, ($r = 0.75$), with p-value ($p < 0.01$). Unlike previous studies that reported that grammar learning is susceptible to biological maturation(Curtiss 1977; Johnson and Newport 1989),

while vocabulary and lexis continue to be learned throughout lifespan (Salthouse 2004; Pinker 2001), the present result here indicates to the exact opposite; that the learners' performance in one level of language is, more or less, linked up with the other, and that there's no demarcating line that was reported to assign different competence to each language level. Conversely, grammar and vocabulary were found to be learned almost equally, with no performance signs suggesting such a dichotomy. The fact that both groups have higher means in grammar than in vocabulary maybe explained by the fact that school syllabus placed more emphasis on grammar than in vocabulary. More still, the result of this study showed no decline in performance beyond CP for LSs who were exposed to English when they were right on the top of the hill of their CP and who were 15 years old at the time of test. Instead, both groups were found to have matching levels of performance regardless of their start. Therefore, the sweeping generalization across contexts that age of start holds the magic key to every success in foreign language learning should not be blindly accepted and that the characteristics of the learning context may have a bearing on the effects of age on foreign language learning. Taking a broad perspective, an instructed foreign setting where the target language is scarce may be seen to differ from a natural setting in some or all of the following characteristics: (1) instruction is limited to 2-4 sessions of approximately 45 minutes per week; (2) exposure to the target language during those classes are be limited both in source (mainly the teacher) and quantity; (3) the syllabus is designed to teach academic language that's totally different from the language of everyday communication; (4) the teacher's oral fluency in the target language is also limited; and (5) the target language is not spoken outside the classroom. These characteristic would cast doubts on the consensus view that "the earlier the better" in any place and time.

However, as this study is far from encompassing age-related issues under varying degrees of language exposure, caution must be applied as these findings

might not be transferable to, or accurately reflect age- learning trajectory in other foreign language learning contexts.

Table (4.8) Correlation between ESs and LSs age of onset and their overall performance in vocabulary and morphosyntax

Correlations				
		Grammar	Vocabulary	Age
Grammar	Pearson Correlation	1	.751**	.182
	Sig. (2-tailed)		.000	.157
	N	62	62	62
Vocabulary	Pearson Correlation	.751**	1	.207
	Sig. (2-tailed)	.000		.106
	N	62	62	62
Age	Pearson Correlation	.182	.207	1
	Sig. (2-tailed)	.157	.106	
	N	62	62	62
**. Correlation is significant at the 0.01 level (2-tailed).				

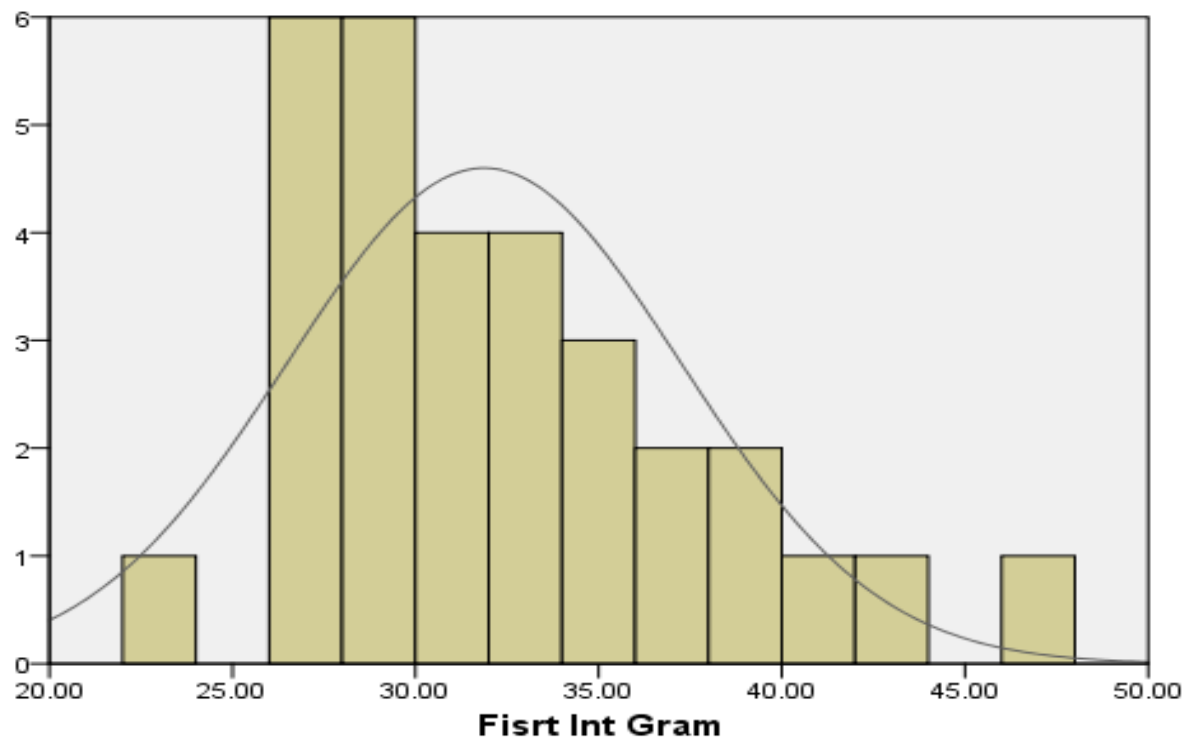


Fig. 4.3 A Histogram with a Line Representing ESs Grammar Scores.

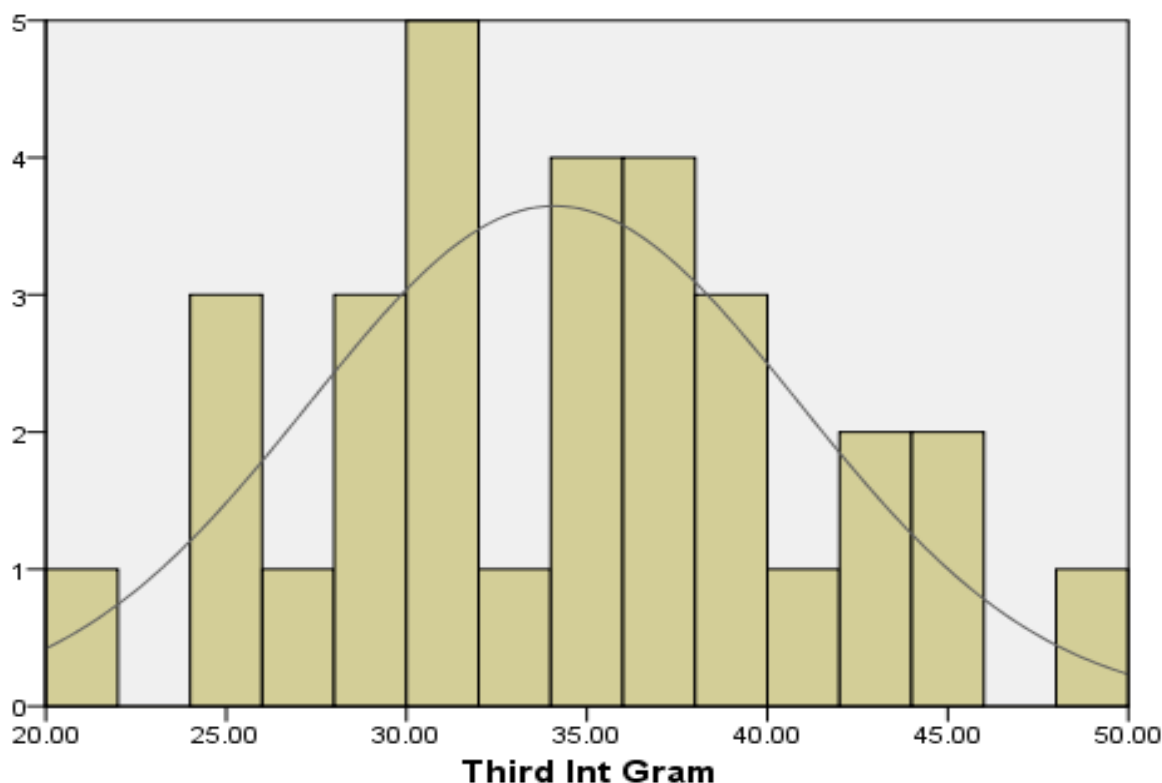


Fig. 4.4 LSs grammar scores.

4.2.3. Comparing the two groups' Individual Differences?

Both groups have shown a remarkably narrow margin of individual variations in their grammar scores relative to their vocabulary. They also showed a short range in grammar 24 and 28 for ESs and LSs respectively. While in vocabulary their ranges were 34 and 32 respectively. This can mean two things; a) unlike vocabulary which is infinite in a sense that an individual can pick up what he needs from an endless list of items, grammar, on the other hand, is finite and disciplined, inasmuch as it is governed by particular sets of finite rules, thus it can be learned by rote memorization of the rules, and b) learning of grammar follows a predictable order. Perhaps it's due to some lexical compatibility or structural proximity between an L1 and L2 that learners tend to learn some morphemes, words or structures earlier than others in a rather predictable fashion.

The individual differences among ESs are smaller, $SD = 5.38$, while they are more noticeable among late starters, $SD = 6.78$, these data are summarized in (see table. 4). The standard error, SE difference between the two groups is 0.25 which is lesser compared to the disparity in both groups vocabulary performance which is 0.34.

4.2.4 What are the areas in grammar that are Most Affected by Age?

Analysis of grammar performances of both groups suggested three important facts: a) As they did in their vocabulary test, LS again outperformed ESs in grammar test, b) the magnitude of errors of both groups clustered around two rule types, notably *personal pronouns and wh-questions* (see table 4.9 below), and c) the individual differences among ESs were comparatively smaller than LSs, despite late starters supremacy on the ultimate performance. The grammar test was comprised of five rule types:

- Personal Pronouns.
- Present Simple tense.
- Wh. Questions.
- Regular/ irregular plurals.
- Adjective-noun word order.

As far as both groups are concerned, it is clear that there is a clear tendency for error-making around certain rule types; especially present simple and personal pronouns, (see table.10 below).

Table 4.9 Representation of ESs and LSs Grammar Errors in Percentage Terms.

Rule type	ESs error %	LSs error %
Personal pronouns	48%	54.4%
Present simple	51.2%	48%
Wh-questions	54%	38.4%
Regular/irregular plurals	44.8%	38.4%
Adjective-noun order	48%	44.8%

Four of the five rule types tested seem to pose a considerable difficulty for ESs, though varying in their degree of difficulty and frequency of occurrence. Some rules, nonetheless; such as present simple and wh-question, have a high frequency of error than others, receiving 51.2% and 54% respectively. Meanwhile other rules have only a low frequency of error occurrence, posing difficulty for some learners but not for others, and the percentage of their occurrence doesn't go far beyond the chance level. Of low- frequency error rules are: personal pronouns and adjective- noun order; which were mistaken by about approximately half the number of ESs. While regular and irregular nouns dichotomy received the least errors; only 14 subjects out of 31 Ess mistook these rules. A significant number of LSs, on the other hand, found it difficult to judge on grammaticality of sentences including present simple and personal pronouns, though personal pronouns received error- magnitude that is higher and remarkably more conspicuous than mere coincidence. In particular, of the ten sentences used to test each rule, some sentences polarized substantial weight of errors among and between groups than

others. For instance, among ESs, grammaticality was blurred in the following constructions:

1. Subject- verb concord in present simple:

- 1) He work in an office. ()
He works in an office. ()
- 2) Ali and Fahad goes to the same school. ()
Ali and Fahad go to the same school. ()

2. Wh-questions distinction:

- 1) What school do you go to? ()
Which school do you go to? ()
- 2) How much brothers and sisters have you got? ()
How many brothers and sisters have you got? ()

3. Adjective- noun order:

4. My grandmother is 75. She is a woman old. ()
My grandmother is 75. She is an old woman. ()

A significant number of LSs, 17 subjects, experienced more difficulty in personal pronouns than in other rule types, specifically, they weren't able to judge correctly on subject/ object pronouns in these constructions:

- Is she a teacher? ()
- Is her a teacher? ()

Present simple received a significant error magnitude by LSs, which fell mainly on subject- verb concord in equally the same way as ESs. This pair of sentences, for instance, polarized the most errors 48% of LSs:

- He work in an office. ()
- He works in an office. ()

The fact that LSs seem to likely experience less difficulty in some rule types than ESs may reveal two important facts: a) learning of grammar follows certain cognitive logic, which suggests a predictable order of acquisition. That's, those language items that are compatible with other items from the learner's mother tongue tend to be learned first, while less compatible items are either

automatically delayed or factored out until a later need or necessity dictates their learning, and b) some LSs seem to learn easier especially during the early stages of foreign language encounter, simply because drawing on their previous L1 experience and world experience, these learners may find short-cuts of access to their pre-existing schemas where they can easily store and retrieve new items; thus reducing the cognitive load that these items might have otherwise posed. While others items that are started all anew seem, on the other hand, to involve heavy conceptual or cognitive load as there's no a pre-existing schema where they can fit in. Such difficulties are represented ESs learning style than LSs, due to the paucity of their foreign language input and lack of pre-existing.

4.2 HYPOTHESES TESTING

4.2.1 Hypothesis One

There is no significant systematic correlation between the age of exposure and the attainment in English vocabulary and morphosyntax.

It was initially hypothesized that a relationship between the age of exposure and the ultimate attainment is globally lacking in nature. Although the result of this study indicated the same point, a weak and statistically insignificant correlation was found between the age of exposure and the ultimate attainment; (0.18), $P > 0.01$, between age and morphosyntax, while it is (0.02) $p > 0.01$ between age and vocabulary. These findings show clearly that the hypothesis postulated earlier is supported by statistical evidence. In the light this evidence, to start young doesn't involve any secret recipes for foreign language success. Instead, it may complicate matters worse. Early-start failure may inculcate attitudes whose long-lasting repercussions can possibly defy any future attempt at restoration.

On the other hand, many recent studies have presented evidence to the exact contrary. For instance, to mention only a few, Johnson and Newport's (1989)

found a strong *negative* correlation between the age of exposure and the ultimate attainment in English morphosyntactic rules, De Keyser (2000) and Seol (2005), replicating Johnson and Newport (1989) found in addition to the strong effects of age on learning, there is also a great impact of the individual verbal analytical abilities upon the end –state language attainment.

The difference between the result of this study and the aforementioned ones is one of setting. That is, studies that found strong negative correlations between the age of start and foreign language proficiency were conducted under wholly different set of circumstances. Accurately, these are studies whose subjects were learners who were exposed to language in naturalistic settings, where they were either partially or totally immersed in the community of the language being learned, with adequate amount of time or input available. This is necessarily incompatible with a setting, like the present case, in which learners encounter the language in a fairly limited learning conditions; where they are exposed to it in one place; the classroom, from one source; the teacher, and in one time; the lesson. Therefore, the amount of language is, by all accounts, is far from sufficient to allow age to extend its full potential effect upon learning. Studies conducted under such input circumstances have found relatively little or absolutely no correlation of any sort between attainment and the starting age. For example, Burstall and Harley (1975) who, in a large-scale study investigated the performance of British pupils learning French found that there is a strong positive relation between the age of exposure and the attainment in all aspects of language. Susan Snow and Hoefnagel-Hohle (1978) reached the same results when investigating the performance of English speakers of different ages learning Dutch. Hakuta, Bialystok and Wiley (2003), studying a large population of 2.3 million Americans of mainly Chinese and Spanish language backgrounds found slightly little effects of age on the eventual attainment, arguing if regression in the level of attainment existed, it would be at an age later than puberty. Al- Thubaiti, (2010)

studied the performance of 132 subjects Saudi college students, who have various starting-points of learning English, but she had found no statistically significant effect of starting age on second language performance, but clear effects of rule type. Al- Thubaiti's study suggests that not only in initial stages is such lack of correlation possible, but it also persists to be absent in the end- state performance.

4.2.2 HYPOTHESIS TWO:

Intensiveness vs. Extensiveness of Exposure

ESs vocabulary mean is 27.23, and it is 31.87 in grammar, while the mean for the overall language performance of this group is 59.065. In contrast, LSs vocabulary mean is 30.84 and in grammar it is 34.096, whereas the mean in the total language performance of this group is 64.94. Now, the difference is clear; 3.61 points between LSs and ESs in vocabulary, 2.23 points in grammar, and while in the overall performance the difference is 5.84 points.

These differences indicate that LSs did better than ESs not only in separate levels of language but also in the overall performance in those levels added up. This would unequivocally suggest that, in minimal input situations, the timing of exposure is less important than the amount of exposure. Therefore, the hypothesis that the **intensiveness of language input has more effects on learning than the earliness of exposure** has truly been met by the result of this study.

The preceding analyses reveal one plausible explanation to these differences; that the inadequacy of linguistic input might perhaps deprive ESs to take full of advantage of their early start and the longer time overall, rendering them with no any significant learning benefits over LSs. With this inadequacy of linguistic input, it seems, little has been gained by ESs over the prolonged seven years they have spent learning the language.

4.2.3. HYPOTHESIS THREE:

-the Similarities between ESS and LSS in Grammar.

It is assumed throughout age- related literature that each age group has its own learning characteristics that distinguish it from other group leaning the same material. For instance, there are certain characteristic featuring late starters and never occur outside this group of learners. It's been noticed that these learning are known to have huge vocabulary size than grammar and a greater receptive than productive skills. However, the present study different seems to indicate a mismatch with what was previously hypothesized that LSs don't only surpassed in vocabulary (LSs mean: 30.84, ESs mean: 27.23), but they showed superiority in grammar (LSs mean: 34.1, ESs mean: 31.9), a feature peculiar to ESs only.

In sum, it is unmistakably evident from the preceding discussion that LSs outscored ESs in both vocabulary and grammar, even though ESs was three years distant from their CP. The alternative hypothesis will go:

-LSs outscored ESs in vocabulary and Grammatical rules.

This hypothesis may be true as far as instructed SL/FL are concerned but doesn't necessarily reflect the state- of- the art of all contexts. In naturalistic settings; however, ESs may have immeasurably higher advantages compared to LSs in the same contexts.

4.2.4 Hypothesis Four:

-There is a considerable overlap between ESs and LSs in overall performance.

As regards the overall performance in lexis and morphosyntax, ESs didn't show any conspicuous superiority over LSs except for that they

displayed relatively smaller individual differences in grammar test, which may be due to their still functioning UG. Instead, LSs showed unchallenged supremacy not only in the two levels separately, but also in overall performance of those levels added up together. ESs overall mean is 59.07, whereas LSs overall mean is 64.9, which is 5.83 points higher than ESs. The null hypothesis is, therefore not fulfilled. The best hypothesis to describe this is:

-There is a considerable difference between ESs and LSs in overall performance

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

This study intends primarily to give answer to some basic questions associated with foreign language learning, such as the question of whether or not age has any effects on learning, and why LSs and ESs are observed, in classroom contexts, to display a uniform level of attainment despite the difference in their starting point. . Many studies on age-related issues have overemphasized the question of when to begin over the question how begin to, claiming that when to begin a foreign language is all that matters. If properly answered, these questions would give us a logical interpretation with which some of the mysteries of when and how to begin a formal classroom instruction can be cleared up. In the previous section an analysis was done so that it was found that age has no role in the ultimate attainment. Here a summary, conclusion and recommendations for those who are involved in EFL field are given in this section. The start is from the summary of findings.

5.1. Summary of Findings

This summary gives a brief account of what has been hypothesized, done, inferred or observed in the course of events from the start of study to the finish. It was initially hypothesized that in minimal input settings, age seems to bear no relation at all to foreign language attainment. Two age groups – early adolescents and teenagers- composing of 31 each were tested on morphosyntax and lexis. The result is totally different from what's previously been hypothesized. It became crystal clear that LSs outscored ESs in both levels of language- vocabulary and morphosyntax, except in that ESs displayed a relatively shorter range of individual differences in the area of morphosyntactic rules, ESs SD= 5.4 than LSs SD= 6.8.

Statistically insignificant correlation was found between the age of onset and the ultimate attainment; this is in addition to LSs outscoring in the mean score. Then, it becomes evident that when length and quality of exposure are held constant, LSs catch up faster and make much quicker progress than do ESs, thus there're no any detectable effects that can be assigned to an early start. There is; as well, no sign around the corner to suggest that age 9 or age 12, as was previously claimed, are the points beyond which successful foreign language learning is unlikely. Rather, there's clear evidence that LSs continued to perform better than ESs in all aspects of their learning, despite the fact that the former group have already passed their presumed CP. It's evident, then, that LSs are retaining their learning capabilities and can push them to the maximum, by learning language in equal footing with ESs. This would, no doubt, put the strong version of CP to the real test. Without careful rendition to the problems of quantity and quality of input and the length of exposure in foreign language syllabuses, there're no viable justifications to that frantic rush by many education agencies around the world to introduce foreign language instruction much earlier. In contrast, such efforts will not only end up futile, but there's high possibility that they'll do great damage to the learning process when students hate the language as it is poorly presented. In the light of the present evidence, there's good reason to believe that in foreign language contexts where language input is insufficient, age doesn't seem to possess the magic key to the Promised Land where students' success is perfectly guaranteed.

This study may be fitting in the body of research that maintains that when high quality input and good deal of exposure are guaranteed people of different ages can bring different advantages to the language learning experience.

5.2 Conclusion

Thus, this study is designed to test the relationship between the age of onset learning English language and the ultimate attainment in that language. It tested the lexical and morphosyntactic competence of 62 intermediate school students who have different points of onset of learning English. They were asked to do a grammaticality judgment test and a vocabulary test, each consists of 50 questions. The result has shown that late starters have outperformed early starters in almost all levels of language, except in that early starters have shown a relatively shorter range of individual variations. It was also found in this study that there is a weak correlation between the age of exposure to English and the ultimate attainment $r = 0.18$ and 0.2 for grammar and vocabulary respectively. However, a strong positive correlation between vocabulary and grammar attainment $r = 0.75$. This indicates that in minimal input contexts, where only classroom exposure is available, the age of the onset of learning a foreign language doesn't maintain any superior position over the other variables.

5.3. Recommendations

The implications of this study findings have dictated the necessity of involvement of all those who work in the field of SL/FL theory and practice; syllabus designers, teachers and researchers.

5.3.1. Recommendations for Syllabus Designers

The introduction of FL instruction in primary or elementary school is a positive change in itself. Nonetheless, trusting age with the burden of language learning success without doing enough on the empirical front is clearly as risky to FL education as ruinous to any attempt at reform. In order for SL/FL to be effective, and in order for the age of start to have its full potential effects, the following points are to be carefully scrutinized by those whom it may concern.

1. Enough teaching time in the curriculum is the most reliable predictive factor in success.
2. Intensity of exposure and length of time overall. Learners who attend 4 hours a week is building on much more solid ground than that who attends only 2.
3. Bridging the gap. This can be done by a syllabus that can smoothly take learners from one grade to the other or one stage to the next without making noticeable gapping $i+1$, (see Krashen).
4. Age appropriate curricular and extra-curricular activities. These are:
 - Learning styles and cognitive conditions
 - Teaching/ learning strategies.
 - Compensatory resources.
 - Integration of content and language.

5.3.2. Recommendation for Teachers

As teachers are the spearheads of any attempt at educational reforms, they should have the following characteristics in order for them to make the headstart be more efficient.

1. They should be trained to work with ESs. Knowledge of cognitive and psychological properties of ESs would help push their potentials to the zenith of their heights.
2. Good language command. A teacher should be fluent and able to provide high quality language input.
3. Keeping track of recent development in SL/FL teaching and learning.
4. Creating a positive learning atmosphere. Teachers should step down of their *ivory tower*, dismantle all the masks of superiority and engage in dialogue with their students.

5.4.3. Recommendations for Further Research

Like the story of blind men and the elephant, this study tries to describe only what it perceives; leaving unresolved the great part of the riddle. However, its message would have been clearly conveyed, had this study pinpointed those areas where further research is needed. Some of those areas that need further investigations are:

1. Further research is needed on ESS and LSS at university level to see if ESS gets any long term benefits from their early start, on the one hand, and to see if there's any sort of decline in LSS performance by increasing age. There is a need also for studies on subjects in intensive programs and longer time overall, but with different headstart in order for us to get a comprehensive idea of the relationship of age and ultimate attainment.
2. Age 13 and 15 may not be enough to provide a full view of when exactly language leaning capacity starts to decline. Therefore, studies are needed on people some years beyond this age in order to make sure whether or not a period in life exists at which people ground to a total halt in their language learning.
3. Phonological along with the academic skills (reading, writing) of language need a separate investigation to control for the effects of age factor.
4. As subjects of this were still in their preliminary stages of their learning, this fact dictates the necessity to design a very simple material. Therefore, Studies are needed with advanced language material and tasks to see how age of start can affect the creative use language.

Finally, age related research is an inter-disciplinary domain. Thus, future research should not only focus on language perception and/or production as the

sole predictor of learning success, rather there should be a particular attention to be paid to the latest developments in neuroscience, especially the brain imaging techniques that produced a definitive line of evidence about the brain areas that are involved in language processing and computation. Psychology provides yet another evidence of child's cognitive development, and how other metalinguistic and personal factors can affect language learning success. Sociology can predict effects of socioeconomic background of a learner on their ultimate attainment irrespective of when they started their learning.

This study would, therefore, do well if it answered those inquiries it set out to answer. It would do still better if it was able to make a point, but it would do the best if it pinpointed those areas where further research is needed.

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APPENDIX 1

1. Grammar Test

Name: الاسم:

School: المدرسة:

Grade: الصف:

Put a tick (✓) in front of the correct statement

ضع علامة (✓) أمام العبارة الصحيحة

1. a) I am from Saudi Arabia. ()
c) Me is from Saudi Arabia. ()
2. a) His is a doctor. ()
b) He is doctor. ()
3. a) They' re schoolboys. ()
b) Their schoolboys. ()
4. a) Us are Saudis. ()
b) We are Saudis. ()
5. a) She hospital is in the centre of town. ()
b) Her hospital is in the centre of town. ()
6. a) This is my teacher. His name's Ali. ()
b) This my teacher. Him name's Ali. ()
7. a) What's you name? My name's Ahmed. ()
b) What's your name? My name's Ahmed. ()

8. a) What is this? It is a pencil. ()
b) What is this? Its a pencil. ()
9. a) Is she a teacher? ()
b) Is her a teacher? ()
10. b) Our brother is sixteen years old. ()
c) We brother is sixteen years old. ()
11. a) I always has breakfast at 6:00 a.m. ()
b) I always have breakfast at 6:00 a.m. ()
12. a) He works in an office. ()
b) He work in an office. ()
13. a) Ali's a doctor. He help many people. ()
b) Ali's a doctor. He helps many people. ()
14. a) She's a nurse. She looks after people. ()
b) She's a nurse. She look after people. ()
15. a) Our parents doesn't let us stay out late. ()
b) Our parents don't let us stay out late. ()
15. a) Ali and Fahad go to the same school. ()
b) Ali and Fahad goes to the same school. ()
16. a) They usually play football after school. ()
b) They usually plays football after school. ()
18. a) We never goes to school on Fridays. ()
b) We never go to school on Fridays. ()
19. a) I goes to bed early at night. ()
b) I go to bed early at night. ()
20. a) Your bike needs to be repaired. ()
b) Your bike need to be repaired. ()
21. a) What are you? I'm fine, and you? ()
b) How are you? I'm fine, and you? ()
22. a) Which are your names? Fahad and Hassan. ()
b) What are your names? Fahad and Hassan. ()
23. a) How far is it from Makkah to Medinah? ()
b) What far is it from Makkah to Medinah? ()
24. a) Where's my book? It's on the table. ()
b) What's my book ? It's on the table. ()
25. a) What school do you go to? ()
b) Which school do you go to? ()
26. a) When does the lesson start? ()
b) Which does the lesson start? ()
27. a) How many brothers and sister have you got? ()
b) What many brothers and sisters have you got? ()
28. a) How much sugar do you want in your tea? ()
b) How many sugar do you want in your tea? ()
29. a) Why do you come to school? To learn. ()

- b) What do you come to school? To learn. ()
30. a) What long have you been learning English? ()
b) How long have you been learning English? ()
31. a) The man shot 4 bird with his gun. ()
b) The man shot 4 birds with his gun. ()
32. a) Many child's suffer from obesity these days. ()
b) Many children suffer from obesity these days. ()
33. a) The vet examined the horse's foots. ()
b) The vet examined the horse's feet. ()
34. a) See a dentist if you have problems with your tooths. ()
b) See a dentist if you have problems with your teeth. ()
35. a) Three mans were killed in an accident yesterday. ()
b) Three men were killed in an accident yesterday. ()
36. a) He has two expensives car. ()
b) He has two expensive cars. ()
37. a) Women work hard at home. ()
b) Womans work hard at home. ()
38. a) Hassan speaks three language. ()
b) Hassan speaks three languages. ()
39. a) The government will build many new school this year. ()
b) The government will build many new schools this year. ()
40. a) Teachers work long hours. ()
b) Teachers work long hour. ()
41. a) He has a red car. ()
b) He has a car red. ()
42. a) It's a lovely day. ()
b) It's a day lovely. ()
43. a) Ali is a smart boy. ()
b) Ali is a boy smart. ()
44. a) I live in a flat small. ()
b) I live in a small flat. ()
45. a) That man young is my cousin. ()
b) That young man is my cousin. ()
46. a) This is an English test. ()
b) This is a test English. ()
47. a) I have a family big. ()
b) I have a big family. ()
48. a) My grandmother is 75. She's a woman old. ()
b) My grandmother is 75. She's an old woman. ()
49. a) He lives in a country house. ()
b) He lives in a house country. ()
50. a) He has a swollen ankle. ()
b) He has an ankle swollen. ()

APPENDIX 2

Vocabulary Test

Choose the correct word اختر الإجابة الصحيحة

1. It's hot! Can you the window, please?
a) open b) push c) close.
2. You can borrow books from the
a) shop b) office c) library.
3. You can buy sugar from the
a) bank b) supermarket c) office.
4. You can borrow money from the ?
a) bank b) cinema c) hotel
5. He builds roads and bridges. He's
a) a doctor b) a salesman c) an engineer.
6. We always have at home at 6:30.
a) dinner b) breakfast c) supper
7. Ali has a lot of money. He's.....
a) poor b) smart c) rich.
8. Can you a car?

- a) ride b) drive c) mount.
9. The test was very we finished it quickly.
a) easy b) hard c) difficult.
10. Please, answer these.....?
a) words b) questions c) answers .
11. We study many..... at school: English, Arabic, ..etc.
a) materials b) subjects c) things
12. In the morning, we always say: "....."
a) good evening b) good morning c) good afternoon.
13. He has no money at all. He's.....
a) poor b) happy c) rich.
14. My mother cooks meals for us.
a) delicious b) beautiful c) pretty.
15. I'm going to bed now, good.....
a) morning b) bye c) night.
16. Your father's brother is your.....
a) grandfather b) brother c) uncle.
17. The holiday was good. We had a great
a) chance b) time c) moment .
18. A is the place where we buy medicine.
a) hospital b) pharmacy c) home.
19. A Is the place where we have meals
a) supermarket b) bakery c) restaurant.
- 20 . I can't help you,?
a) pardon b) excuse me c) sorry.
21. You can buy flowers from a
a) grocer's shop b) barber's shop c) flowers shop.
22. Fahad is sixteen years.....
a) age b) big c) old.
23. What's your.....? I'm a teacher.
a) work b) job c) employment.
24. What do you do ?
a) I'm a doctor b) I'm writing a lesson c) I'm studying.
25. He for a big oil company.
a) works b) makes c) does.
26. Fahad spent his last in Spain.
a) birthday b) holiday c) journey.
27. My father's father is my.....
a) grandfather b) cousin c) uncle.
28. My mother's sister is my.....
a) grandmother b) niece c) aunt.

29. He is a He never eats meat.
a) vegetarian b) herbivorous c) carnivorous.
30. Put the light It's getting dark in here.
a) on b) up c) off.
31. Jeddah is a big.....
a) town b) village c) city.
32. We never go to school at.....
a) weekdays b) weekends c) weeks.
33. Bananas, oranges and apples are.....
a) vegetables b) fruit c) flowers.
34. I early in the morning at 5:00.
a) go up b) get up c) get away.
35. Where is he? He is from Spain
a) from b) for c) to.
36. My sister is She looks after sick people.
a) a teacher b) a nurse c) an engineer
37. Take your..... if it's raining.
a) umbrella b) coat c) jacket.
38. Ali is He will be back soon.
a) on b) in c) out.
39. is someone who writes for a newspaper.
a) A writer b) A journalist c) An author.
40. He flies planes. He's a.....
a) pilot b) plane driver c) plane flyer.

Match the word with its opposite (رتّب الكلمة و عكسها) ضع الر قم بين القوسين

A	B
1. succeed	() fast.
2. difficult	() dislike.
3. slow	() safe.
4. dangerous	() sell.
5. quiet	() easy.
6. buy	() boring.
7. go	() new.
8. like	() fail.
9. Old	() noisy.
10. interesting	() come