

## On the Significance of the Age Factor in Language Attainment: A Synthesis and Novel Evidence from Morocco

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### Abstract

*The aim of the following study is to explore the interrelatedness between second/foreign language attainment and the learner's age. The interest in this study grew out of two essential reasons. First of all, although there have been many investigations dealing with the link between the learners' age and their second/foreign language attainment, the findings from the research continue to be inconsistent and inconclusive (Pfenninger & Polz, 2018). Additionally, the equivocal nature of the findings is related in part, to the failure of most of these studies to examine this relationship under properly controlled conditions (Nikolov & Djigunović, 2006). This paper attempts to undertake the central question at multiple levels of analysis among Moroccan learners of different age groups being subject to the same teaching and learning conditions. More interesting perhaps is that although much research has been undertaken to explore the significance of the age factor in language learning, this topic is still an uncharted area of research in the Moroccan educational context, and very little is known about it. Our concern here is to disclose the interrelatedness between the learners' age and their success or failure in language attainment. Drawing on data comparing young and older learners' attainment levels in English as a foreign language, the results prove very convincingly that young language learners tend to surpass their older classmates, though not significantly at different levels of analysis, but more substantially at one particular level pertaining to the language skill of reading. Another more central objective of this paper is to draw the attention of language teachers and educationalists in general about the importance of the young-adult difference in language learning, and to delineate some of the pedagogical implications for the teaching and learning of languages in the Moroccan schools.*

## **1. INTRODUCTION**

Probably, the question of age in relation to second/foreign language learning is one of the most contentious and controversial issues which has often created a stir among linguists, psycholinguists, neuro-linguists, educational psychologists, and applied linguists, to mention just a few. Abundant empirical research studies have been carried out often with conflicting findings and opposing implications regarding this factor.

The major goal of this paper is to be primarily concerned with a discussion of some theoretical issues pertaining to the status of age as related to second/foreign language learning and attainment. Such a discussion will attempt to survey the classical and more recent bulk of literature in the hope of obtaining a sufficient background concerning the basic rationales underlying the nature of this topic. It is also the aim of this article to present a critical review of some of the major research studies which have been undertaken so far, and to highlight some of the methodological problems which have often obfuscated the discussion of their findings. More interesting perhaps is that this study will attempt to compare the achievement levels of young and older learners of EFL in the Moroccan context.

This study comprises three different but closely related sections. Section one offers a theoretical background to this study delineating the conflicting conclusions drawn for prior research germane to the differential success among young and adult language learners along with a brief sketch of up-to-date views regarding the different approaches to language learning in relation to success. The procedural techniques adopted in this study along with an explanation of the research tools exploited to investigate the issue under prime consideration are outlined in section two. The third section presents the findings of this research and a discussion of its results. The study ends up with some recommendations for the teaching and learning of languages and then wraps up with proposed venues for future research.

## **2. LITERATURE REVIEW**

A review of the literature on the issue of age and language learning in general and attainment in particular easily reveals that there is a great debate among investigators on the question of whether children learn second/foreign languages more easily and proficiently than adults. The argument of a number of research studies rests on the basic contention that age is related to, and possibly influences proficiency in language learning. Brown (1980) succinctly put it that “one of the issues in second language research is the differential success of children and adults in learning a second language” (p. 2).

Asher and Garcia (1969), for instance, have conducted an enquiry comparing the pronunciation of Cuban immigrants in the United States of America, whose age is between seven and nineteen, with that of Native Americans. The results have shown that young learners tend to surpass the corresponding older ones in their fidelity of pronunciation. It has been contended that young learners’ observed language facility in the natural setting may be traceable to their being exposed to the foreign language in a physically active and play environment; adults do so in non-play and very difficult situations. Asher and Garcia (1969) reason, in the connection, that the younger the human organism when first exposed to a language, the greater the probability that it will acquire a native-like pronunciation.

Scovel (1969), in a similar line, stresses that young learners are more likely to speak a second language without a foreign accent. His argument is consonant with Lenneberg’s (1967) hypothesis which stipulates that all children are equally able to learn a second language efficiently and without a foreign accent, while adults may perhaps never get rid of it.

In complete agreement with the above line of reasoning, Oyama (1976) advances essentially the same contention. The author contends that the age of arrival is importantly significant in determining pronunciation accuracy. Young Italian immigrants to the United States of America have been reported to score appreciably better on measures of

pronunciation than their adult peers. Oyama (1976) concludes, as Asher and Garcia (1969) do, that the learner's age of arrival to the host country predicts near-native pronunciation.

Yamada et al. (1980) have documented essentially the same result; Japanese elementary school children are found to learn English words faster than the corresponding older learners (Yamada et al., 1980, p. 246).

However, in the framework of the age issue in relation to second/foreign language learning, the presently available empirical research provides conflicting evidence supporting the proficiency of different age groups. Opposite results are reported, for instance, by Snow and Hoefnagel-hohle (1978). Subjects participating in this research are drawn from three different age groups of English speaking students learning Dutch in Holland. They report that although adults (15 years and older) tend to surpass children (6 to 10 years), adolescents (12 to 15 years) seem to outperform more significantly than both by progressing very rapidly. However, it is very surprising to note that Snow and Hoefnagel-hohle's (1978) finding does not accord with any psychological theory.

Accordingly, the common belief that children are superior in the second language pronunciation (Asher & Garcia, 1969; Scovel, 1969; Oyama, 1976) is not upheld. The presently available research summarized above; however, does not provide the wealth of argument and evidence concerning the general issue. While there might be some truth in their arguments, they can in no way be made too much of because they are based on merely one skill, pronunciation, which is perhaps a poor indicator of overall second language competence.

Ramirez and Politzer (1978), by contrast, seem to adduce a more efficient account of the problem in question. The writers compare the performance of two age groups on comprehension and production tests. The results have shown that adults are superior and have an advantage over the corresponding young group. Generalization from this study; however, may be limited by some methodological problems. Chief among these, perhaps, is that comparing two age groups who belong to completely different levels of study- high secondary school students and kindergarten beginners- may not be intuitively appealing. It would be reasonable to argue, as Gardner (1988) does, that such studies need to be viewed with considerable caution for they involve students from different schools and, more surprisingly, of different levels of educational training.

Diller (1978) endorses the same results summarized in the previous paragraph, namely that older learners are more efficient than children with regard to second language performance. He speculates that, if learners at different ages are matched according to the amount of time they have been exposed to the second language, it is the older learners who are more likely to attain very quickly higher grades on measures of grammar and vocabulary.

Fathman's (1975) study seems to echo almost the same pattern of results. This investigation has examined the productive ability of non-native children (6 to 15 years old) who were learning English as a second language in American public schools. Older learners (11 to 15 years old) scored significantly on measures of morphology and syntax. Pronunciation tests, however, have shown the reverse. Young children (6 to 10 years old) are reported to be superior in the use of correct and accurate English pronunciation.

Additional evidence in support of old learners' tendency to outperform children with regards to language learning is reported in Thogmartin (1982). Although adults are found to surpass young children in the production and repetition of the foreign language skills, Thogmartin (1982) argues that the differences are not as significant as those reviewed in other studies (1982, p. 69).

Such efficiency on the part of older learners is accounted for by Rubin (1981) and Burstall's (1981) contention that adults tend to bring to the learning task more experience and greater cognitive ability. Rubin (1981), in particular, reasons that adults do better guessing (having at their disposal multiple hierarchies of redundant cues) while the child has not yet developed such hierarchies (Rubin, 1981, pp. 24-25).

In addition to the possibility that older learners are advantageous in having a more cognitively mature system to work with (Ervin-tripp, 1974; Fathman, 1975) has carried this assumption further to suggest that the reason why adults are more likely to attain better grades in the syntax and morphology of the second language is that, after puberty, the older learner's "ability to learn rules, to make generalization or to memorize patterns may be more fully developed" (Fathman, 1975, p. 251).

In a similar line, the findings of Krashen (1978; 1980; 1981), Dulay et al., 1982, and Krashen and Terrell (1988) seem to be compatible with the view that adults are more likely to outperform young pupils. It has been maintained in this connection that young learners tend to undergo an educational experience that is substantially less productive than that of adults. The relatively inferior score found among children is believed to be the result, as Krashen (1980) posits in his "monitor hypothesis", of their inability to manipulate the abstract and complex rules governing the second language structure (Dulay et al., 1982).

Kinard and Reinherz (1986) and Kerr (1972) take essentially the same stance stressing the adult's advantage and excellence in learning. Different reasons have been advanced to explain this pattern of results. While Kinard and Reinherz (1986) observe that children suffer educationally by being placed with older learners, Kerr (1972) asserts, as Rubin (1981) does, that adults excel because of their greater maturation required in the learning of a second language.

Contrastively, the bulk of much available research literature runs strongly against the above line of argumentation. There is actually a common consensus in this tendency to demonstrate that young learners are likely to be more proficient and to attain higher levels than adults in the second language (Seliger, 1978; Tsushima & Hogan, 1975; Svanes, 1987; Johnson & Newport, 1989). These results are in complete compatibility with Lenneberg's (1967) hypothesis that increasing age correlates with a decreasing command of the target language.

What is perhaps of immediate concern to us here is Lenneberg's (1967) strong argument for a 'Critical Period' in language learning between the ages of two and twelve. He reasons in this connection that the human brain displays a biologically-based capacity for language learning which gradually disappears by puberty when the brain grows up and lateralization is utterly finished (Flege, 1987). From this perspective, Selinker (1974) defines 'adult' language learning as learning which takes place after the age of twelve.

This neurological argument may explain, at least in part, Woodley (1984); Tsushima and Hogan (1975) and Svanes's (1987) observation that whereas young learners have the highest probability of achieving better commands in the second language, adults, by contrast have the lowest chance of attaining the same results. In view of this, Svanes (1987) comes to the implication that increasing age is consistently marked by lesser degree in language proficiency. This is in complete compatibility with Lenneberg's (1967) hypothesis that increasing age correlates with a decreasing command of the target language.

Comparable patterns of results are endorsed by Sharp (1975), Strevens (1983) and Genesee (1984). Strevens (1983) stresses, in this regard, that young learners are prone to learn anything including a practical command of the second /foreign language willingly and effortlessly (Strevens, 1983, p. 8). By the same token, the child is reported to be very enthusiastic in learning, and is naturally endowed with "the need for exploration, for seeing the other side of the mountain and for probing the unknown" (Brown 1980, p. 12).

Almost all these arguments are probably in consonance with the assumption that children are somehow better language learners than adolescents or adults. Especially crucial here is that research findings of this kind are perhaps pedagogically essential, as Diller (1978), Snow and Hoefnagel-hohle (1978), Halpern (1984) and Stern (1983) argue, when educational policy decisions must be made concerning the age grade at which students are offered second language instruction. This being the case, it follows that the psycho-educational debate concerning the appropriate age at which the second language would be

introduced stems essentially from the very basic question of whether or not children learn a second language any better or more easily than adults (Skutnabb-kangas, 1981; Sharp, 1975).

Hernandez et al. (2005) provide a competition and entrenchment based account within Bates's emergentist framework by providing neurolinguistic evidence in support of this discrepancy among the two age groups by focusing in part on late bilinguals while contrasting them to early L2 learners who are accordingly subject in theory to discernably and somewhat divergent processes of language acquisition given the age differential, and goes on to explain how phonological acquisition and lexical organization differ accordingly. In this study, Hernandez et al. (2005) explain how greater plasticity is associated to young learners to experiencing less entrenchment associated at the neurological level in the learner's brain to more control of the target language which is favorable for language acquisition, unlike adult L2 learners who are more likely to rely on metacognitive processes such as positive transfer. Other differences that constrain the age of acquisition exist at the phonological and semantic levels and have equally been accounted for neurologically (Hernandez & Li, 2007). Furthermore, the emergentist model is supported by evidence from the Netherlands affirming that the more the input at an earlier age, the most outstanding the L2 performance is (Unsworth, 2016).

Moreover, from a cognitive perspective, unlike adults, children are enthusiastic and talkative; nevertheless, the latter lose concentration and motivation easily (Moon, 2000). Besides, children possess limited world knowledge, and they lack experience. Moreover, children are still at the early stage of cognitive development, particularly as they do not have access to meta-language compared to old learners.

The two factors of cognitive skills and amount of exposure appear to be commensurate with learning over time with learners (Muñoz, 2008). That said, the emergence of conciliatory research which attempted to reconcile the classically conflictual evidence by identifying the predominantly consistent observations that can be accounted for in a coherent and defensible manner. One such notable conclusion is advanced by Muñoz (2008) where it has been stated that "younger starters' advantage is only generally observed in situations in which they have had a greater amount of exposure." (p. 208)

Further evidence shows in contrast that if researchers control for the amount of input, age as a factor is rendered substantially less contributive and of less explanatory power than commonly thought, all of which led to the conclusion that the L2 starting age is not associated in a hardline deterministic mono-causal and exclusive fashion to language learning (Muñoz, 2011).

It is interesting though that at older age, bilingualism has been found to be a safeguard against cognitive decline which popularized the idea that is worthy not only of scientific investigation but also of commercial use (Antoniou et al., 2013), although it remains debatable as counter-evidence has emerged suggesting strongly otherwise (Berggren et al., 2020).

What seems to be agreed upon however is the idea that "early exposure is often seen as a key to success and a solution to all problems in language education" (Nikolov & Djigunović, 2006, p. 234). This holds true as well particularly for post-puberty L2 learners who have been shown to attain satisfactory levels of proficiency (Marinova-Todd, 2003; Urponen, 2004; Moyer, 2004). Researchers seem to stress also that near-native foreign language performance is possible even for adults (Newport et al., 2001) despite the fact that substantial evidence (See Ghalebi and Sadighi (2015, for a review) shows that at the syntactic, semantic and pragmatic levels, second/foreign language learning occurs more foundationally earlier in life.

At this point it is important to remind ourselves of the indissmissible fact that the earlier L2 learning occurs, the more proficient the learner becomes. The previous detailed historical analysis shows the extent to which more efforts need to be put in to resolve the pending research questions that have intrigued scientists for so many decades, and perhaps even for many decades to come, before any clear conclusive answers can be reached.

On the affective front, younger learners have significantly better attitudes toward learning English than older learners, according to research on the relationship between biological age and L2/FL learning motivation (Cenoz, 2003; Nikolov, 1999), which Kanno (2007) attributes to psychological and educational factors. In contrast to the self-consciousness that afflicts adolescents while performing in an L2, younger learners are known to have a natural predisposition to respond eagerly to new difficulties (Driscoll, 1999).

Early adolescence, on the other hand, is often connected with a period of transition and ambiguity, when students “struggle to achieve a coherent sense of self” (Lamb, 2012, p. 19). Older students are sometimes regarded as having a proclivity to reject the educational system as a whole, or as being less motivated by the use of more traditional and less active approaches in high school (Tragant, 2006). According to Marinova-Todd et al. (2000), most adult language learners are less successful because they lack the desire, time or energy commitment, and support from the situations in which they find themselves to expect high levels of success. This, however, does not account for late starters’ rapid learning rates in the early stages of L2 acquisition, which are frequently described (Muñoz, 2006) as benefiting from an initial short-term advantage, in which they experience a faster rate of learning than younger learners in the early stages of morpho-syntactic development.

In so far as the age question goes, it has long been entertained that affective variables play an important role in association with adult second language acquisition (Schumann, 1975). In this context, a study by Kinsella and Singleton (2014) performed a study wherein they recorded the L2 attainment of French-learning Anglophone L2 adult learners in addition to their affective measurements including motivation and attitude. The corresponding results revealed that the affective variables played a more important role than maturational factors. More recent evidence appears to point very strongly to age-related differences in EFL learning. These differences are believed to be primarily attributable to affective variables. A case in point is a study by Chen (2014) wherein he systematically observed that older students tended to use affective strategies more often than younger students.

Additional evidence by Kormos and Csizér (2008) illustrates the importance of the affective dimension to L2 learning by explaining how the motivation component plays an important role in determining the attainment level through various models of motivational behavior for learners of different age brackets groups. The study was performed with the participation of approximately seven hundred EFL Hungarian students from secondary level, university level in addition to a sample of adults, and the results showed that the older the learners are the more the affective input represented through cultural products acquired a significant role in the learning process.

In the American context, a study performed where L2 Chinese-learning US learners partook of an investigation of the affective aspect in relation to learning between different groups, and the results indicated that the age category interacted significantly with the level of proficiency in addition to the perception of their Chinese parents (Sung, 2013).

More broadly, it is equally important to acknowledge the importance of psychological and contextual factors even for L3 as documented by Pfenninger and Polz (2018) in a study where German-Slovenians and German-speaking individuals underwent an EFL training program. The findings which crop up from this research revealed that maturational factors play as much affective variables do, leaving the researchers with the conclusion that with the right conditions and training age does not seem to be a critical determinant of L3/L2 attainment.

So far, we have dealt with some significant and crucial elements which pertinently underlie the status of age in relation to language learning. We have also touched upon some problematic and complicated issues pertaining to this area. However, it would be foolhardy at this stage to draw any final conclusions on the validity of the theoretical assumptions underlying most of the arguments surveyed before. It is our belief that the surest path to a sane conclusion regarding this problem seems to lie in an empirical examination of the link between age and language performance measures. For, unless the phenomenon is itself probed, little can be done to determine its validity.

As a matter of fact, there is still a need for more robust and vigorous type of research which may attempt to exert an experimental control over some of these mediating variables. The method we suggest to be adopted in this regard hinges on correlational analysis and main effect evaluation linking age and EFL attainment in the Moroccan context.

### **3. RESEARCH METHODS**

#### **3.1. Research Design**

The present study is quantitative non-experimental in its design. Its main objective is to test for the effect of age and EFL attainment in addition to testing the existence of any significant EFL attainment differences between two different age groups. Initially, we measure the degree of the interrelatedness between age and EFL attainment using the chi-square test as a precursor for conducting between-group comparison. Furthermore, one way independent analysis of variance test is used to compare EFL attainment level of the different age groups in our sample. Detailed inferential statistics for age group based EFL grade comparison is conducted after providing adequate descriptive statistics.

#### **3.2. Research questions and hypotheses**

The stated research questions will determine the results of the present study. Using one independent socio-demographic variable, age bracket, and five score variables which are the general EFL attainment as measured by GPA as well as reading comprehension scores, grammar scores, study skills scores and writing scores, we elaborate our two research questions as follows as we respectively derive two corresponding hypotheses for each question:

RQ1) Does age have a statistically significant effect on EFL attainment between different adult age groups in Morocco as measured through a sample of university level students?

H0) Age does not have a statistically significant effect on EFL attainment across different adult age groups in Morocco as measured through a sample of university level students.

H1) Age has a statistically significant effect on EFL attainment among different adult age groups in Morocco as measured through a sample of university level students.

RQ2) Is there a statistically significant interrelatedness between age and EFL general attainment and across reading comprehension, grammar, study skills and writing as measured through a sample of university level students?

H0) There is a statistically significant interrelatedness between age and general EFL attainment and across reading comprehension, grammar, study skills and writing as measured through a sample of university level students.

H1) There is no statistically significant interrelatedness between age and general EFL attainment and across reading comprehension, grammar, study skills and writing as measured through a sample of university level students.

#### **3.3. Participants and sampling procedure**

In terms of data, we used the official scores of first-year students enrolled in the 2021-2022 academic year. This data was provided by the administration of Sultan Moulay Slimane University located in the region of Beni-Mellal - Khenifra in Morocco. The data consisted of scores of two thousand two hundred and thirty five (N=2235) students of whom one thousand

three hundred and sixty students (N=1360) are females representing 61% of the sample, while the remaining eight hundred and seventy five students (N=875) are males representing 39% of the sample. For the purpose of this study, the students are categorized according to four different age groups based on a standard five-year incremental age difference basis. The age of the students of the first group ranges from 16 to 20 while the second group belongs to the 21-25 age bracket. The following two age groups fit respectively into an age bracket of 26-30 and 31-35. All students were part of the first year common core English Studies program at the Faculty of Letters and Human Sciences of Sultan Moulay Slimane.

### 3.4. Measurement tools

The measurement tool for EFL attainment was a specially devised test comprising reading aspect, writing in addition grammar and study skills test components. A sum score was then calculated to obtain a GPA score. The unification and uniformization of the test is such that it reliably and practically permits the standardization of scores through a common scoring rubric. The full score was calculated on a base of twenty for all groups.

## 4. FINDINGS

### 4.1. Descriptive statistics

Figure 1 shows the distribution of students whose scores were used in this study and which constitutes a relatively imbalanced gender distribution in favour of females.

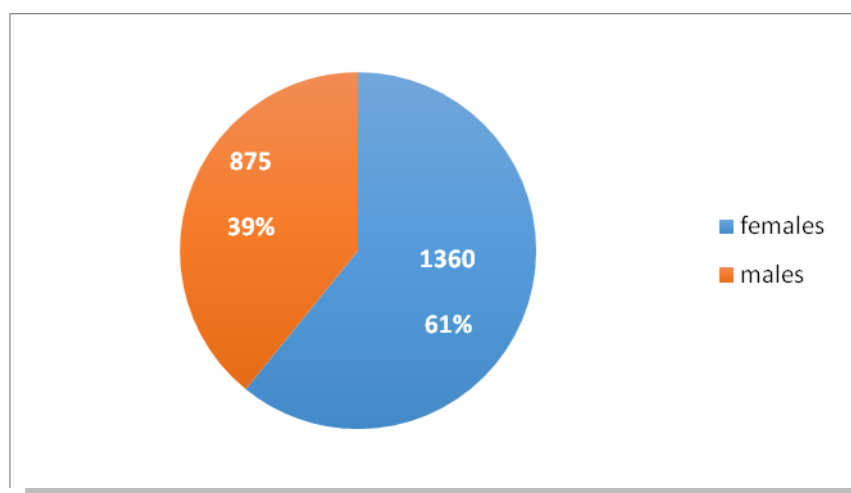


Figure 1 Distribution of Males and Females

Table 1 shows the average grades across all subjects of reading comprehension, writing, grammar, study skills and eventually displays the calculated average GPA score for each group of students. Figures 2,3,4,5 and 6 represent graphically the score data reported in table1.

Table 1. Mean GPA and EFL modules scores by age bracket

Age bracket	Reading comprehension	Writing	Grammar	Study skills	GPA
15-25	11.55	11.58	11.55	11.58	11.56
20-25	11.39	11.48	11.47	11.65	11.50
25-30	11.37	11.59	11.41	11.54	11.48
30-35	7	11.56	11.59	8.5	9.37



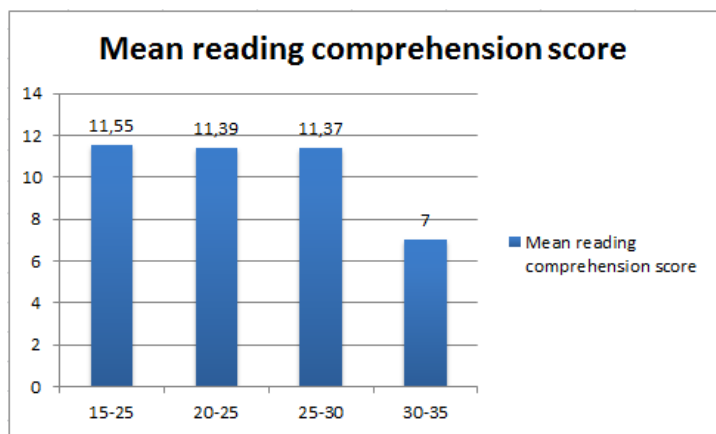


Figure 2. Mean reading comprehension score

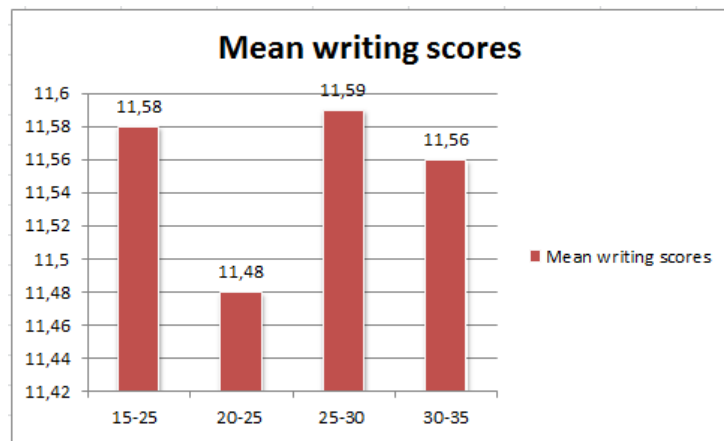


Figure 3. Mean writing score

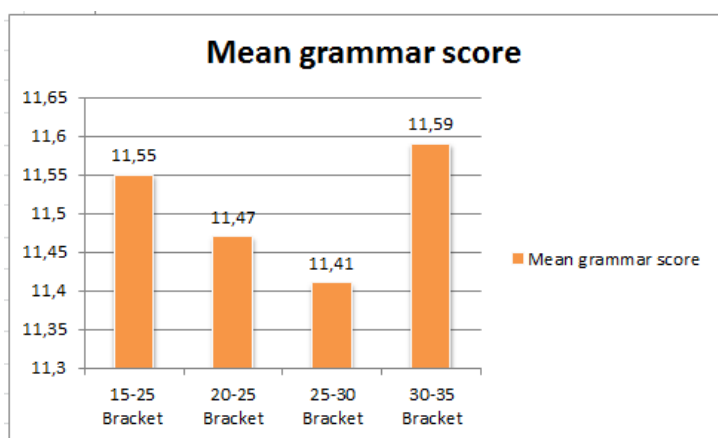


Figure 4. Mean grammar score

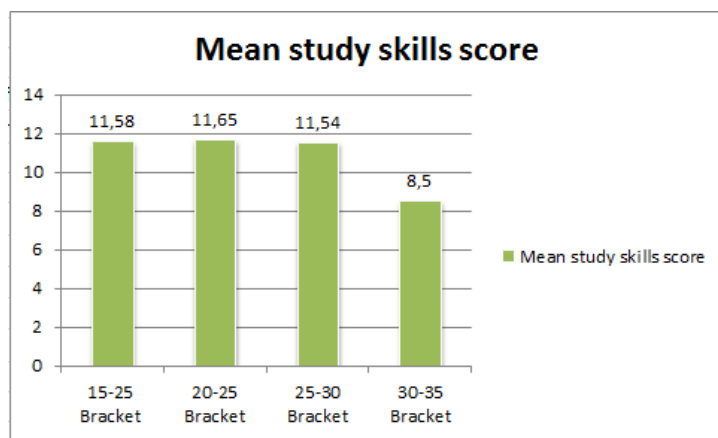


Figure 5. Mean study skills score

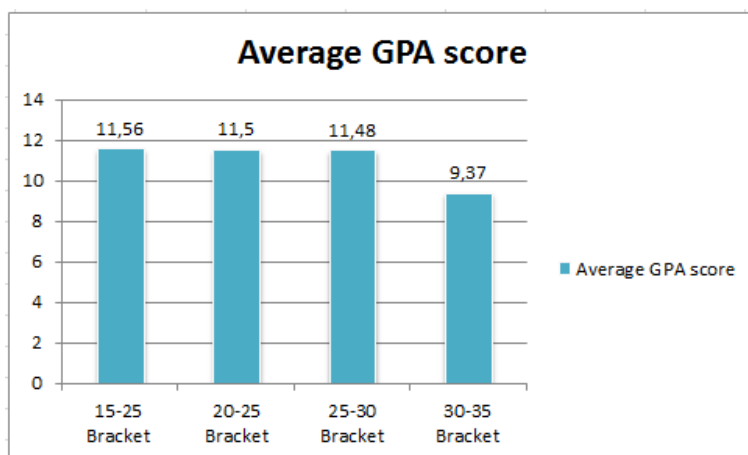


Figure 6. Mean grammar score

#### 4.2. Inferential statistics

First, to attempt to answer the first research question related to the effect of age on EFL attainment, a Chi-square test was performed to test the hypothesis emanating from the first research question. The results indicated that age bracket indeed plays a significant role in determining the EFL attainment level,  $\chi^2 (1, N = 2235) = 694.502, p < .001$  with an acceptable effect size strength,  $\phi = .322, p < .001$ . Likewise, we were able to demonstrate the statistical link between age and reading comprehension,  $\chi^2 (1, N = 2235) = 91.859, p < .05$

with an acceptable effect size strength,  $\phi = .117$ ,  $p < .05$ ; age with Grammar,  $\chi^2 (1, N = 2235) = 116.752$ ,  $p = .001$  with an acceptable effect size strength,  $\phi = .132$ ,  $p = .001$ ; and also study skills,  $\chi^2 (1, N = 2235) = 221.756$ ,  $p < .001$  with an acceptable effect size strength,  $\phi = .182$ ,  $p < .001$ . The only exception was writing at the level of which we uncovered a statistically significant relationship,  $\chi^2 (1, N = 2235) = 165.502$ ,  $p = .653$ .

Further, in order to explore the potential differential attainment between the four different age groups, a one-way independent ANOVA test was performed to evaluate the relevant hypothesis emanating from the second research question related to age group based difference in EFL attainment. The results revealed the existence of no overall difference between groups in a statistically significant way,  $F (3, 2231) = 2.408$ ,  $p = .065$ . Further ANOVA tests for writing, grammar, study skills were respectively insignificant,  $F (3, 2231) = 0.225$ ,  $p = .879$ ;  $F (3, 2231) = 0.287$ ,  $p = .835$ ;  $F (3, 2231) = 1.256$ ,  $p = .288$ ; except for reading comprehension,  $F (3, 2231) = 3.070$ ,  $p = .027$ .

Still, although such EFL attainment differences along the four age brackets are not statistically significant, apart from the reading comprehension test, they are all of them and without any exception favoring young language learners. This may substantiate, at least in part, the aforementioned hypothesis as postulated by Lenneberg (1967), among others, that the younger a learner is, the more proficient his/her commands of the target language will be.

After performing ANOVA and obtaining significant results for reading comprehension, we conducted the Bonferroni post-hoc test. The results subsequently revealed that those who reported themselves to be of 16-20 of age had significantly higher reading comprehension scores ( $M = 11.55$ ,  $SD = 2.36$ ) compared to the oldest 31-35 year bracket ( $M = 7.65$ ,  $SD = 1.41$ ) in a statistically significant way.

## 5. DISCUSSION

The initial investigation revealed that age is related statistically to EFL language attainment in the Moroccan context using a substantial sample size amounting to more than two thousand students. The Chi-square test showed a very strong association between age bracket and EFL attainment through the specially unified devised English language test. This interesting finding joins on the one hand much of the earlier literature surrounding the subject particularly pertaining to non-natives' ability to learn a foreign language (e.g. Fathman, 1975; Rubin, 1981). Despite that writing, reading comprehension and study skills were found to be associated to age significant, grammar did reveal to be an exception. These series of associations however paves the way for more specific age-group analysis and comparison to be conducted.

Although the group based comparison revealed that there are no statistical differences between the older students and the younger ones with respect to their achievement levels in grammar, study skills, and writing, the discrepancy is always found to be tipped in the favor of the younger population. More interesting perhaps is that the findings of this study tend also to indicate the reading comprehension stands out as an exception delineating a statistically significant difference favoring young language learners. Note shall be made here that a close examination of the reading comprehension results show that the age-impacted scores differential is significant only when comparing the scores of the 15-20 age-group to those of 30-35 age-group students. As important as the differences in scores are, as shown through the measures of central tendency with a difference in the mean approximating four and a half score points, no disparities among younger students groups were discerned.

In this context, evidence has shown that younger language learners tend to exhibit better results (Asher & Garcia, 1969; Snow & Hoefnagel-hohle, 1978; Rubin, 1981; Burstall, 1981) than their older mates (Kerr, 1972). Indeed, this account is reinforced at different levels of language skills and learning factors.

From a neurological point of view (Muñoz, 2008; Muñoz, 2011; Marinova-Todd, 2003; Urponen, 2004; Moyer, 2004) especially by virtue of learning the syntactic and

pragmatic knowledge (Ghalebi & Sadighi, 2015), the latter aspects are particularly essential for speaking and reading. From this perspective, at the explanatory level, plasticity is believed to play a determining role in helping younger students to neurocognitively accommodate novel language information, vocabulary and grammatical structures. This neurobiological and neurocognitive explanation is coherent par excellence and offers an interesting account of neurolinguistic reality.

Similarly, from an affective standpoint, it has been argued that young learners do have the psychological and affective advantage (Cenoz, 2003; Nikolov, 1999) and the psychological gain conducive to faster morpho-syntactic learning. There is much evidence indicating that the younger the learners are, the more involved they are motivationally and the more favorable their attitudes are towards the target language. Such a view is more consonant with Kinoshita's (2003) contention that younger learners tend to exhibit more motivation and a notably more positive attitude towards language learning.

However, the conclusion we have drawn appears to apply only to reading comprehension, a language skill, but not to other language skills e.g. writing and language components e.g. grammar. Our interpretation is that the older the learners are, the less likely the difference between them and other learners closer to their age bracket gets. That is to say, out of a through experiment, we hypothesize that if we were to measure the difference between learners that are younger than the age bracket of 15-25, and older learners, the differences in scores would hypothetically be more pronounced. By way of addition, the results also confirm in part our assumption stating that younger learners perform better than their older mates in EFL language attainment. This was true in our case using the data at our disposal only in so far as the youngest learners performed better than the oldest students on average and not every older group.

To summarize this part, we believe we have obtained findings through which we answered both research questions positively but in a nuanced way that needs to be detailed. First, our statistical analysis allowed us to establish an association between age and EFL attainment including the components of writing, reading comprehension, and study skills except for grammar. Further, in response to the second research question, we found that younger learners appear to perform better than considerably older students only in reading comprehension despite having been tested within the same class using the same standardized test and under the same circumstances.

Through our investigation, no matter how limited in scope and objectives it is, it does provide in a very positive and constructive sense a starting point for future investigations and further developments of the literature in the context of Morocco.

## **6. CONCLUSION**

Through this meta-analytic work, we were able to provide a synthesis of some of the major opinions across multiple decades of research devoted to the issue of age and second/foreign language attainment. We have been able to demonstrably show that the age issue in relation to language attainment has been and remains indeed very contentious as no major conclusive evidence is available. If there is an optimal age to learn a foreign language based on neurological factors, it is still not clearly proven through research. Some researchers have attempted to prove that younger is better for language learning, but others have concluded that age makes no difference. Therefore, the question of the relationship of age to second/foreign language learning still remains unresolved. More long-term studies would be fundamental to clarify the relationship of age to language achievement. Many of the studies which have been conducted up to this point have been short-term. All the conflicting results of research should lead us to the conclusion that age and the rate of learning may make a difference. Other factors which are not directly caused by age or critical language learning periods may be more important in determining the high achievement and success of foreign language learners.

## 7. LIMITATIONS AND RECOMMENDATIONS FOR FUTURE RESEARCH

The limitations pertain to multiple aspects of this research study. One salient limitation is the lack of multiple age groups respectively across many age brackets, the analysis of which would have made the study design better positioned in principle to answer multiple research questions related to EFL attainment across a longer and more comprehensive timeline, and this would have given a better visibility of the effect of age on performance in a trackable fashion.

Moreover, purposive samples are very useful but randomly selected samples are more representative of the population. Data collection should be optimized to the extent possible through making use of data available throughout the population. Diversified sample sources are very instrumental in making generalizable conclusions particularly for understudied contexts like Morocco.

Indeed, uniformization in testing is a major validity concern. In the context of the present study, although language attainment is operationalized in a very comparable fashion in our study in a way that does not undermine the validity of the construct measurement in any important way, there is room for making tests uniform across the various levels of participants be they school level of university level.

One last limitative aspect is the quality of data. Since the use of powerful parametric statistical tests is conditioned by the characteristics of data collected, which support in part the possibility of generalization of conclusions, as mentioned earlier, the more dispersed the data is, the better quality it reflects and the more generalizability it is conducive to. This increases the reliability of our conclusions and encourages the replication of the study in question.

## REFERENCES

- Antoniou, M., Gunasekera, G. M., & Wong, P. C. (2013). Foreign language training as cognitive therapy for age-related cognitive decline: A hypothesis for future research. *Neuroscience & Biobehavioral Reviews*, 37(10), 2689-2698. <https://doi.org/10.1016/j.neubiorev.2013.09.004>
- Asher, J. J. & García, R. (1969). The optimal age to learn a foreign language. *The Modern Language Journal*, 53(5), 334-341. <https://doi.org/10.2307/323026>
- Berggren, R., Seblova, D., & Lövdén, M. (2020). Education and age-related decline in cognitive performance: Systematic review and meta-analysis of longitudinal cohort studies. *Ageing Research Reviews*, 58, 101005. <https://doi.org/10.1016/j.arr.2019.101005>
- Brown, H. D. (1980). The optimal distance model of second language acquisition. *TESOL quarterly*, 157-164. <https://doi.org/10.2307/3586310>
- Burstall, P. (1981). *The Golden Age of the Thames*. David & Charles.
- Cenoz, J. (2003). Chapter 10. Teaching English as a Third Language: The Effect of Attitudes and Motivation. In C. Hoffmann & J. Ytsma (Ed.), *Trilingualism in Family, School and Community* (pp. 202-218). Bristol, Blue Ridge Summit: Multilingual Matters. <https://doi.org/10.21832/9781853596940-011>
- Chen, M. L. (2014). Age differences in the use of language learning strategies. *English Language Teaching*, 7(2), 144-151.
- Diller, K. C. (1978). *The language teaching controversy*. Newbury House Publishers.
- Dornyei, Z., & Ryan, S. (2015). *The psychology of the language learner revisited*. Routledge.

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- Driscoll, P., & Frost, D. (Eds.) (1999). *The teaching of modern foreign languages in the primary school*. Routledge.
- Dulay, H., Burt, M. K., & Krashen, S. D. (1982). *Language two*. Oxford University Press.
- Ervin-Tripp, S. M. (1974). Is second language learning like the first. *TESOL quarterly*, 111-127. <https://doi.org/10.2307/3585535>
- Fathman, A. (1975). The relationship between age and second language productive ability. *Language learning*, 25(2), 245-253. <https://doi.org/10.1111/j.1467-1770.1975.tb00244.x>
- Flege, J. E. (1987). A critical period for learning to pronounce foreign languages? *Applied linguistics*, 8(2), 162-177. <https://doi.org/10.1093/applin/8.2.162>
- Gardner, H. (1988). Creativity: An interdisciplinary perspective. *Creativity research journal*, 1(1), 8-26. <https://doi.org/10.1080/10400418809534284>
- Genesee, F. (1984). The social-psychological significance of bilingual code switching for children. *Applied Psycholinguistics*, 5(1), 3-20. <https://doi.org/10.1017/S014271640000480X>
- Hernandez, A., Li, P., & MacWhinney, B. (2005). The emergence of competing modules in bilingualism. *Trends in cognitive sciences*, 9(5), 220-225. <https://doi.org/10.1016/j.tics.2005.03.003>
- Ghalebi, R., & Sadighi, F. (2015). The usage-based theory of language acquisition: A review of major issues. *Journal of Applied Linguistics and Language Research*, 2(6), 190-195.
- Halpern, J. Y. (1984). A good Hoare axiom system for an Algol-like language. In Proceedings of the 11th ACM SIGACT-SIGPLAN symposium on Principles of programming languages (pp. 262-271).
- Johnson, J. S., & Newport, E. L. (1989). Critical period effects in second language learning: The influence of maturational state on the acquisition of English as a second language. *Cognitive psychology*, 21(1), 60-99. [https://doi.org/10.1016/0010-0285\(89\)90003-0](https://doi.org/10.1016/0010-0285(89)90003-0)
- Kanno, Y. (2007). ELT policy directions in multilingual Japan. In J. Cummins & C. Davison (Eds.), *International handbook of English language teaching*. Part One (pp. 63-74). Springer.
- Kerr, A. H. (1972). Psycholinguistics and a new empirical approach to the measurement of comprehension and readability of French as a second language. *Changing Education*, 278-293.
- Kinard, E. M., & Reinherz, H. (1986). Effects of marital disruption on children's school aptitude and achievement. *Journal of Marriage and the Family*, 285-293. <https://doi.org/10.2307/352396>
- Kinoshita, C. Y. (2003). Integrating language learning strategy instruction into ESL/EFL lessons. *The Internet TESL Journal*, 9(4), 1-6.
- Kinsella, C., & Singleton, D. (2014). Much more than age. *Applied Linguistics*, 35(4), 441-462. <https://doi.org/10.1093/applin/amu032>
- Kormos, J., & Csizér, K. (2008). Age-related differences in the motivation of learning English as a foreign language: Attitudes, selves, and motivated learning behavior. *Language learning*, 58(2), 327-355. <https://doi.org/10.1111/j.1467-9922.2008.00443.x>

- Krashen, S., & Terrell, T. (1983). *The natural approach: Language acquisition in the classroom*. Alemany Press.
- Krashen, S. (1978). Adult second language acquisition and learning: a review of theory and practice. In R. Gingras (Ed.), *Second Language Acquisition and Foreign Language Teaching*. Center for Applied Linguistics.
- Krashen, S. (1980). The input hypothesis. Paper presented at the Georgetown Round Table on Languages and Linguistics. Washington, D.C.
- Krashen, S. (1981). The theoretical and practical relevance of simple codes in second language acquisition. In Scarcella, R. & S. Krashen (Eds.), *Research in second language acquisition*. Rowley. Newbury House.
- Kroll, J. F., & De Groot, A. M. (Eds.). (2009). *Handbook of bilingualism: Psycholinguistic approaches*. Oxford University Press.
- Lamb, M. (2012). A self-system perspective on young adolescents' motivation to learn English in urban and rural setting. *Language Learning*, 62(4), 997–1023. <https://doi.org/10.1111/j.1467-9922.2012.00719.x>
- Lenneberg, E. H. (1967). The biological foundations of language. *Hospital Practice*, 2(12), 59-67. <https://doi.org/10.1080/21548331.1967.11707799>
- Marinova-Todd, S. H., Marshall, D. B., & Snow, C. E. (2000). Three misconceptions about age and L2 learning. *TESOL quarterly*, 34(1), 9-34. <https://doi.org/10.2307/3588095>
- Marinova-Todd, S. H. (2003). *Comprehensive analysis of ultimate attainment in adult second language acquisition*. Harvard University.
- Moon, J. (2000). *Children learning English*. Macmillan Heinemann.
- Moyer, A. (2004). Age, accent and experience in second language acquisition. In *Age, Accent and Experience in Second Language Acquisition*. Multilingual Matters.
- Muñoz, C. (2006). *Age and the rate of foreign language learning*. Multilingual Matters.
- Muñoz, C. (2008). *Age-related differences in foreign language learning*. Revisiting the empirical evidence.
- Muñoz, C., & Singleton, D. (2011). A critical review of age-related research on L2 ultimate attainment. *Language teaching*, 44(1), 1-35. <https://www.doi.org/10.1017/S0261444810000327>
- Newport, E. L., Bavelier, D., & Neville, H. J. (2001). Critical thinking about critical periods: Perspectives on a critical period for language acquisition. *Language, brain and cognitive development: Essays in honor of Jacques Mehler*, 481-502.
- Nikolov, M. (1999). 'Why do you learn English?' 'Because the teacher is short'. A study of Hungarian children's foreign language learning motivation. *Language Teaching Research*, 3(1), 33-56. <https://doi.org/10.1177/136216889900300103>
- Nikolov, M., & Djigunović, J. M. (2006). Recent research on age, second language acquisition, and early foreign language learning. *Annual review of applied linguistics*, 26, 234-260. <https://www.doi.org/10.1017/S0267190506000122>

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- Oyama, S. (1976). A sensitive period for the acquisition of a nonnative phonological system. *Journal of psycholinguistic research*, 5(3), 261-283. <https://doi.org/10.1007/BF01067377>
- Pfenninger, S. E., & Polz, S. (2018). Foreign language learning in the third age: A pilot feasibility study on cognitive, socio-affective and linguistic drivers and benefits in relation to previous bilingualism of the learner. *Journal of the European Second Language Association*, 2(1). <http://doi.org/10.22599/jesla.36>
- Ramírez, A. G., & Politzer, R. L. (1978). Comprehension and production in English as a second language by elementary school children and adolescents. *Second language acquisition: A book of readings*, 313-332.
- Rubin, J. (1981). Study of cognitive processes in second language learning1. *Applied linguistics*, 2(2), 117-131. <https://doi.org/10.1111/j.1467-1770.1975.tb00242.x>
- Schumann, J. H. (1975). Affective factors and the problem of age in second language acquisition. *Language learning*, 25(2), 209-235. <https://doi.org/10.1111/j.1467-1770.1975.tb00242.x>
- Scovel, T. (1969). Foreign accents, language acquisition, and cerebral dominance. *Language learning*, 19 (3-4), 245-253. <https://doi.org/10.1111/j.1467-1770.1969.tb00466.x>
- Seliger, H. W. (1978). Implications of a multiple critical period hypothesis for second language learning. *Second language acquisition research: Issues and implications*, 11-19.
- Selinker, L. (1974). *Error analysis: Source, cause, and significance*. Longman.
- Sharp, J. J. (1975). Learning: Management or Encouragement?. *Engineering Education*, 65(5), 433-435.
- Skutnabb-Kangas, T. (1981). Bilingualism or not: The education of minorities (Vol. 7). *Multilingual Matters*.
- Snow, C. E., & Hoefnagel-Höhle, M. (1978). The critical period for language acquisition: Evidence from second language learning. *Child development*, 1114-1128. <https://doi.org/10.2307/1128751>
- Stevens, P. (1983). What is 'standard English'? in L. E. Smith (Ed.) (1983). *Readings in English as an International Language*. Pergamon.
- Stevens, P. (1983). Teachers of what? A global look at the "E" of TESOL. In *On TESOL* (pp. 1-10). TESOL.
- Stern, H. H. (1983). *Fundamental Concepts of Language Teaching*. Oxford University Press.
- Svanes, B. (1987). Motivation and cultural distance in second-language acquisition. *Language learning*, 37(3), 341-359. <https://doi.org/10.1111/j.1467-1770.1987.tb00575.x>
- Thogmartin, C. (1982). Age, individual differences in musical and verbal aptitude, and pronunciation achievement by elementary school children learning a foreign language. *IRAL: International Review of Applied Linguistics in Language Teaching*, 20(1), 66.
- Tragant, E. (2006). Language learning motivation and age. In C. Muñoz (Ed.), *Age and the rate of foreign language learning* (pp. 237-268). *Multilingual Matters*.

- Tsushima, W. T., & Hogan, T. P. (1975). Verbal Ability and School Achievement of Bilingual and Monolingual Children of Different Ages. *The Journal of Educational Research*, 68(9), 349-353. <https://doi.org/10.1080/00220671.1975.10884795>
- Sung, K. Y. (2013). L2 motivation in foreign language learning. *Journal of Language and Linguistic Studies*, 9(2), 0-30.
- Unsworth, S. (2016). Quantity and quality of language input in bilingual language development. In E. Nicoladis & S. Montanari (Eds.), *Bilingualism across the lifespan: Factors moderating language proficiency* (pp. 103–121). American Psychological Association. <https://doi.org/10.1037/14939-007>
- Urponen, M. I. (2004). *Ultimate attainment in postpuberty second language acquisition*. Boston University.
- Woodley, A. (1984). The older the better? A study of mature student performance in British universities. *Research in Education*, 32, 35–50. <https://doi.org/10.1177/003452378403200105>
- Yamada, J., Takatsuka, S., Kotake, N., & Kurusu, J. (1980). On the optimum age for teaching foreign vocabulary to children. *IRAL: International Review of Applied Linguistics in Language Teaching*, 18(3), 245-.