



THE AGE OF ONSET TO LEARN A FOREIGN LANGUAGE AND MOTIVATION IN THE PRONUNCIATION OF FRENCH AS A FOREIGN LANGUAGE FOR UNIVERSITY STUDENTS

¹TATIANA DURAND-FLORES, ²SANTIAGO SEVILLA-VALLEJO, ³MARGIT JULIA GUERRA AYALA,
⁴CARLOMAGNO SANCHO-NORIEGA, ⁵ROSA GONZALES LLONTOP

¹Universidad Nacional de San Agustín
Facultad de Filosofía y Humanidades
Escuela Profesional de Literatura y Lingüística
Arequipa, Perú

tdurand@unsa.edu.pe

<https://orcid.org/0000-0001-5175-1355>

²University of Salamanca

Faculty of Education

Salamanca, España

santiagosevilla@usal.es

<https://orcid.org/0000-0002-9017-4949>

³Universidad Nacional de San Agustín

Facultad de Filosofía y Humanidades

Escuela Profesional de Literatura y Lingüística

Arequipa, Perú

mguerraa@unsa.edu.pe

<https://orcid.org/0000-0002-8128-1662>

⁴Universidad Nacional de Frontera

Facultad de Administración Hotelera y Turismo

Sullana -Peru

csancho@unf.edu.pe

<https://orcid.org/0000-0002-6828-675X>

⁵Universidad Nacional Pedro Ruiz Gallo-Perú

rgonzalesl@unprg.edu.pe

<https://orcid.org/0000-0002-7516-8022>

Abstract: *The objective of this study is to determine how the age of onset to acquire a foreign language and motivation both influence in the pronunciation of the French language in university students. To accomplish this work, quantitative research was used and the methodology is descriptive correlative. There are previous studies that sustain that students of a foreign language that began at an early age have acquired better pronunciation of FLE compared to those who began their learning process at a later age. The human being at an early age has great muscular flexibility, it is precisely in this period that the muscles of the mouth must be trained to reproduce the sounds of the L2 phonological system. This research revises with Spearman test correlation this theory with French as a foreign language Peruvian' students. This study also analyzes the importance of motivation for this area of learning process. The empirical results allow to confirm that the best stage to learn a foreign language is childhood, since a child's brain has greater plasticity; which allows it to unconsciously appropriate a second language and the positive impact of motivation on learning of pronunciation of French as a foreign language. It is possible to conclude that we have to foster foreign language since younger ages.*

Keywords: *Difficulties in pronunciation in FLE; motivation; age of onset; ego flexibility.*



Table of Contents

1. Introduction
2. Materials and Method
3. Results
4. Discussion
 - 4.1 How age influences the acquisition of the pronunciation of a foreign language
 - 4.2 Cognitive theories of L2 acquisition by age
 - 4.3 Motivation applied to phonetics
5. Conclusion
6. Acknowledgments

1. Introduction

This research work addresses how both the age of onset of language learning and motivation, directly influence the pronunciation of French as a foreign language in Spanish-speaking university students. Indeed, we found that the learners who began the study of an L2 in early childhood have better pronunciation of French compared to those who learned L2 later, despite being highly motivated to know and learn the culture and language of a country other than their own; this did not significantly influence pronunciation. The level of pronunciation is consistent with the age at which they learned L2. The younger, the better they discriminate sounds. For [Penfield \(1965\)](#), when a student starts learning L2 at an early age, before puberty more specifically, they acquire the foreign language more quickly and without much effort. [Lightbown & Spada \(2006\)](#) state that the appropriate age to learn a foreign language is during childhood. However, this could interfere with the learning process of L1, thus they recommend starting the learning of L2 after age 3. On the other hand, for [Fleta \(2006\)](#) the infant is in permanent contact with both languages since birth; ergo, they can acquire both languages simultaneously.

We started this study in order to demonstrate that good pronunciation of French, a foreign language, is one of the most solid pillars regarding communication between individuals. Mispronunciation can hinder the communication of a message, and therefore the interaction between the interlocutors will be affected. Likewise, in the international French DELF exams (A1, A2, B1 and B2) and the DALF (C1 and C2) that correspond to the six levels of the Common European Framework of Reference (CECR), great importance is given to phonetics, giving each level 3 points out of 25 to demonstrate mastery of the phonological system.

To perform our research, a descriptive design was followed for the analysis of the control group and the non-experimental design for the variables of pronunciation, the level of motivation and the age.

2. Materials and Method

A descriptive design was followed for the control group analysis in order to determine the homogeneity assumption of the variable pronunciation and choose the relevant hypothesis test, for which the group distribution was preliminarily observed by means of a boxplot.

Subsequently, the non-experimental design performed with the use of the non-parametric chi-square test for independent samples in the case of the variables pronunciation and level of motivation. In the case of the variables pronunciation and age of onset of an L2 the chi-square test was used preliminarily but the count inferior to five, exceeded 22.2%, reason why it was decided the application of the exact test of Fisher. The variables were also processed in their ordinal values, which allowed them to be statistically analyzed with the Spearman test. In this way, the association between the variables was obtained.

The population was composed of 150 university students from whom qualifications in pronunciation were observed, and who were coded according to the institutions in which they study and their correspondingly assigned student code provided by the afore mentioned centers in order to identify them. Once the sampling was done the information was collected regarding the other variables.

The calculation corresponding to the sample, for a confidence level of 95% and with a margin of error of 5%, showed the number of 98 students. The sampling was simple random.

3. Results

The variables corresponding to the first pair of analyses, visualized in [Table 1](#), pronunciation and motivation, presented association with a high level of significance of 0.000, a value far distant and below 0.05, which for our investigation reflects that in the university students' group, the level of pronunciation is in line with their level of motivation, meaning that, the higher the motivation to learn the foreign language, the better the pronunciation levels of the students.

Table 1. Pronunciation and Motivation variables

	Value	gl	Asymptotic significance
Pearson's Chi-square	132,128 ^a	4	,000
Likelihood ratio	136,368	4	,000
Linear association	81,068	1	,000
Number of valid cases	98		

Note: The calculation of the results was obtained with bilateral significance.

The variables corresponding to the second pair of analysis, observed in [Table 2](#), pronunciation and age of onset of L2, presented an association with a high level of significance of 0.001, a very distant value and below 0.05 which represents for this study that in university students the level of pronunciation is consistent with the age stage in which they learned an L2.

Table 2. Chi square and Fisher exact Tests

	Value	Gl	Asymptotic significance	Exact significance	Exact significance	Probability at the point
Pearson's Chi-square	18,651 ^a	4	,001	,001		
Likelihood ratio	18,231	4	,001	,002		
Fisher's exact test	17,547			,001		
Linear association	13,744 ^b	1	,000	,000*	,000	,000
Number of valid cases	98					

Note: *For the exact test calculation of the result based on two-tailed significance; however, for the linear association with a one-tailed value.

Although [Table 1](#) and [Table 2](#) alternately show the degree of relationship between each pair of variables treated in the studies such results denote a relationship; [Table 3](#) and [Table 4](#) verify how strong that relationship is; where in the first case, pronunciation and level of motivation, present a weak relationship compared to the almost perfect and strong relationship between the age of onset of an L2 and pronunciation. It can be deduced from these results that university students who learned a second language from a very young age have a greater chance of pronouncing French better compared to those who learned the language later, despite the good motivation they have to know and learn the language.

The age of onset would have more impact on a better pronunciation of these university students in Arequipa than motivation itself.

Table 3. Pronunciation and motivation level correlation

		Pronunciation	Motivation level
Rho Spearman	Pronunciation	1,000	,384**
	Correlation coefficient	.	,000
	Sig. (bilateral)	.	,000
	N. °	98	98
	Motivation level	,384**	1,000
	Correlation coefficient	,000	.
	Sig. (bilateral)	,000	.
	N. °	98	98

Note: **. The correlation is significant at the 0.01 level (2-tailed). The level of correlation represented by the two asterisks has been provided automatically by the software.

4. Discussion

We perform the present study because we consider that, in the teaching-learning process of a foreign language, the student must have a correct pronunciation for the success of their communication in L2, thus guaranteeing the understanding of speech by their interlocutors, no interference will occur in the process and it will develop smoothly. On the contrary, a pronunciation with errors will demand that the interlocutor pay more attention; and in other cases, lose patience, get angry, or make fun of the pronunciation of the L2 learner. Cortés (2002) state that an apprentice who has a good pronunciation in LE will be better accepted among the natives. However, many times during the development of language learning sessions, pronunciation is neglected due to time constraints or in other cases due to lack of teacher training.

To perform this investigation, we had a sample of 150 university students, who took the subject of French as a foreign language, the same ones who were evaluated in pronunciation of FLE. The results showed the existence of an association between the variables: motivation-pronunciation, and age of onset - L2 pronunciation. However, the degree of association between both pairs has been measured and the one with the strongest association (almost perfect) is the age of onset and L2, it should be noted that this association is inverse (negative). The association between the first pair is weak. The age of onset of learning L2 was decisive in the good pronunciation of the students.

Pronunciation is a component of the phonetic linguistic element. It should be considered as the concretization of oral language; therefore, both the production and the perception of sounds must be considered. For successful communication in LE, it is necessary for the learner to master its pronunciation. Lauret (2007) adds that pronunciation is a physical competence, meaning that, the student must master the articulation of the new sounds of the target language, which will be achieved with daily practice.

Teaching pronunciation involves showing the new sounds of a foreign or known language but in different contexts. Learning pronunciation is also accepting great changes in articulatory movements such as automatic, spontaneous and unconscious ones. Also working on new associations of articulatory gestures will be implied. (Wachs, 2011)

With the Common European Framework of Reference, the fundamental aspect in the teaching of a foreign languages to children and adolescents is phonetics. The teacher should be concerned with transmitting the correct pronunciation of the sounds of a language in the first years of schooling. Later,

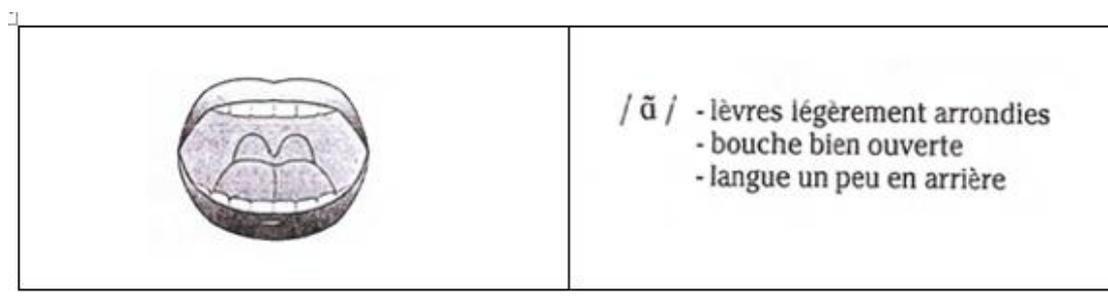
when the student reaches adulthood, he will systematically learn the foreign language.

According to [Tomé \(1997\)](#), in the learning-teaching process of a foreign language the two phonological systems that intervene must be taken into account. Thus, the FLE teacher must be trained in both the French and Spanish phonological systems, in order to determine the characteristics of each one and establish the inequalities and similarities between both. This knowledge will allow for a better correction of mispronunciation.

Our Spanish-speaking university students encounter interference from their mother tongue when they come into contact with the 36 phonemes and 130 graphemes of the French phonological system; this due to the existence of only 24 phonemes and 29 graphemes in the Peruvian Spanish language.

LE learners look for familiar or Spanish-like sounds to pronounce in comparison to the new sounds of French. This is the case of the nasal vowel [ã] which is pronounced as [ɔ̃], in this case, to correct the lack of pronunciation we make use of the articulatory method and show the articulation of the nasal [ã] which is equal to [an] but pronounced with the mouth more open.

Graphic 1. Articulation of the nasal



Source : Grammaire Progressive du Français. Niveau Avancé p. 108

In other cases, the use of articulatory or visual correction method may cause interference, so when we pronounce the word *feu* [fø] the learner pronounces [fo], not because he has perceived that sound but because he sees the articulation of our mouth, and he believes that it is the articulation of the vowel «o» in Spanish. Because of this, the most successful way to correct such problems is to approach the student's ear and pronounce the correct sound, in this way he will no longer see the articulation of the oral vowel, but will only hear it and it will be easier for him to pronounce it.

The evaluation of pronunciation depends on the objectives and contents of the training: this can be integrated into the assessment of oral competence, whose message must be clear enough to be understood. Likewise, this evaluation must cover perception (auditory discrimination) and production. It also ensures two functions:

The diagnosis is used to define a work program, to place a student within a group or to evaluate their progression and testing ([Lauret, 2007](#))

The LE student is the only one responsible for their pronunciation learning; they must do regular and conscious physical training to strengthen and accustom their muscles. Regular and conscientious work guarantees the change of articulatory habits ([Lauret, 2007](#))

[Tagliante \(2005\)](#) proposes an evaluation table for pronunciation of the linguist Harris. It will allow the evaluator to assess the pronunciation, always over a standard of 5 points.

Table 4. Evaluation table for pronunciation

Score	Assesment
5 points	Few traces of foreign accent in his speech.
4 points	Always understandable despite a specific accent.



3 points	Pronunciation difficulties that warrant constant attention that sometimes leads to misunderstandings.
2 points	It is very difficult to understand because of pronunciation difficulties. Speaker must often be asked to repeat themselves.
1 point	Severe pronunciation difficulties are observed that make oral discourse almost incomprehensible.

Note: prepared by the author

4.1 How age influences the acquisition of the pronunciation of a foreign language

In the late 1950s, neurologists [Penfield, W. & Robert, L. \(1959\)](#) argued that there was a relationship between general intellectual ability and an ability of the child to imitate an accent. For them, pronunciation was basically an imitative process. Likewise, they highlighted that the ability to imitate reaches its highest level between ages 4 to 8s. After that age this ability gradually decreases throughout childhood.

On the other hand, the linguistic ego is related to the age factor and as it develops over time, it ceases to have permeability and plasticity. For this reason, this lack of security that the mother tongue gives them causes the child to have more receptive linguistic conditions that allow him to differentiate the sounds of L2. While the adult is more rigid and uses more the affective filter that restricts their learning possibilities.

[Chernigovskaya, T. V. \(1983\)](#) used electroconvulsive therapy to study late bilingual psychiatric subjects who learned L2 at school concluding that in this type of learning, the neural organization of L1 is frequently located in the left cerebral hemisphere, while the right is occupied by the L2. In late bilinguals, L1 and L2 are located in different areas of the brain. For this reason, they have greater difficulties when they learn a foreign language because they use an area that is not linguistically activated.

On the other hand, this process of lateralization of brain functions, which is completed at approximately age 13, has profound consequences on language processing, increasing the capacity for conscious analysis, on the one hand, but decreasing the capacity for phonological discrimination ([Ellis, 1997](#)). Indeed, in adulthood, our capacity for phonological discrimination is reduced to the sounds of our own language, in general, it is neither natural nor spontaneous. Consequently, the process of lateralization of brain functions, which is completed at approximately age 13, has profound consequences on language processing, increasing the capacity for conscious analysis, on the one hand, but decreasing the capacity for phonological discrimination on the other one. ([Ellis, 1994](#)).

Later, [Kim et al. \(1997\)](#) also did a study using magnetic resonance imaging to perform a brain scan, where differences in brain organization were observed between early and late bilingual learners; and the assessments about children and adults in relation to the patterns of brain activation and localization of language processing. It was found that, when children acquired L2 during the early stage of language acquisition development, both their mother tongue and their foreign language were represented in Broca's area of the frontal lobe, located in the left hemisphere of the brain. However, when the learning of L2 began after this period, it was located in Wernicke's area of the temporal lobe located in the right hemisphere of the brain, which is, separated from L1 ([Sevilla-Vallejo, 2017](#))

More recent scientific research in neurology also proves that the early acquisition of L2 causes it to share some peculiarities with the mother tongue, such as its location in the same brain hemisphere and is associated with greater metalinguistic and phonological awareness that contribute to the development of the Cognitive skills and a better pronunciation of the sounds of L2 that do not exist in L1, components that favor the development of children's abilities to learn foreign languages. In the critical period theory, the child goes through a period prior to puberty, in which he has the best conditions to learn an L2.

From the phonetic point of view, the works of [Polivanov \(1931\)](#); [Troubetzkoy \(1949\)](#) constitute one of the first attempts to explain the difficulties encountered by a student learning a foreign language,



such as the influence of the mother tongue, which is described as a phonological filter. These two researchers suppose the existence of a kind of filter that is put into practice during the acquisition of a foreign language; this is due to the hearing of the speaker, who is only accustomed from an early age, to the phonological distinctions of his mother tongue. Due to this fact, at the beginning of their learning, the L2 learner cannot produce the sounds of L2 that do not exist in their mother tongue because they are unable to perceive them. It is not a matter of hearing deafness or disability but rather a habit of familiarity with the speech signal. Hence, we may consider the importance of the influence of L1 in any process of acquiring a foreign language.

Later, the studies of [Asher & García \(1969\)](#); [Lado \(1964\)](#); [Ekstrand \(1978\)](#) prove that age plays an important role in learning how to pronounce the sounds of a foreign language. Hence the facility for children to reproduce sounds in L2.

Another theory explains that children who have just learned their mother tongue do not lose the ability to learn new sounds. This theory is also related to age. Later, [Flege et al. \(1996\)](#) state that early learning of L2 guarantees mastery of sounds that do not exist in the mother tongue; on the contrary, late bilingualism makes it difficult to pronounce sounds that do not exist in L1.

In the past decade, [Lauret \(2007\)](#) signaled that for specialists, children can acquire the sounds of a foreign language more easily than adults and also only children can acquire a pronunciation not marked by the mother tongue.

[Lauret \(2007\)](#) himself states that the premise of the «Joseph Conrad syndrome» holds that post-adolescents can rarely or never have a pronunciation «identical to that of a native» in a foreign language, which is supported by the critical period hypothesis. This has ground on the fact that the lateralization of the function of the cortex appears around puberty and would retract the attempts to control the sound patterns of the L2, that is, the discrimination of the sounds of the L2.

[Lauret \(2007\)](#) also states that it is difficult for an adult to understand and master the pronunciation of a foreign language. This is because their mother tongue makes him deaf to the sound structures of other languages (since they do not exist in his mother tongue), meaning that, speaking in their mother tongue irreversibly shapes their perception and production of sounds.

Consequently, a learner of a foreign language who incorrectly repeats a sound or word does not err because they have misheard it, but rather that they made a poor choice among the large number of information that was proposed to them, influenced by the customs of their mother tongue.

4.1 Cognitive theories of L2 acquisition by age

[Guberina \(1991\)](#) sustains in his Happy Age theory that up to the age of six a child is capable of reproducing the prosody of a foreign language, as well as imitating its sounds. This ability to imitate a language occurs between ages 4 to 8. It is during this period that the child develops the greatest facilities for learning a second language. The acquisition is still done naturally. It is during this period that precedes primary school that the child develops skills for learning L2. At this stage, the acquisition is carried out naturally. However, as well as having this great facility to learn L2, children also forget what they have learned very quickly if learning is interrupted.

[Lenneberg \(1967\)](#) in his theory of critical age, supports that between ages 7 to 9, the child goes through a period of perceptual reorganization: from a global treatment to an analytical one. This new strategy requires more attention and control from the child itself. This would explain the loss of the ability to discriminate sounds, found at that age. However, the influence of the mother tongue is too recent to have altered the hearing abilities of the child. In this period, the infant possesses a more advanced cognitive development, also having knowledge and skills acquired during the schooling stage, which will allow them to learn a foreign language without any difficulty. [Rondal, J. A & Comblain, A. \(1991\)](#) affirm that, when the socio-affective dimension is respected, 9-year-old children are curious, malleable, and spontaneous. For [Guberina \(1991\)](#), a child at the age of 9 can still begin learning a foreign language, despite being in a transitional stage between the favorable period and the period of



difficulties.

For Hagege (1996), in his theory *the limit age*, when the child reaches the age of 10 they reach their maximum development and begins to lose the perception capacity, in addition to the loss of plasticity of the motor controls that intervene in the production of phonemes Moreau & Richelle (1981). Likewise, it was found that the infant ceases to have the ability to have an authentic pronunciation. The joint becomes heavy. The copycat process is true, but it is not that good after age 8.

4.3 Motivation applied to phonetics

Motivation is an essential component because it is the state in which the student puts into play processes of prior interest, works on the linguistic content and connects with their own experience (Sevilla-Vallejo, 2018; Sevilla-Vallejo, 2019). Likewise, it is observed that motivation is closely related to the cognitive processes necessary to process language. For Vanthier (2009), no one can learn if they are not motivated. Therefore, it is the responsibility of the teacher to create motivating situations during the teaching-learning process that arouses the interest of children. This requires knowing the emotions, thoughts and attitudes of the students. That is why it is important that we know the personality and needs of our students.

Motivation is divided into two classes according to the origin of the interest aroused. Intrinsic motivation refers to the personal interest of each student for their own learning as such, without the presence of other stimuli (Buckley & Doyle, 2016). In other words, in the case that we are going to work, no external factor would intervene in the L2 learning process itself. While extrinsic motivation occurs when the student works to obtain a reward.

Since Abraham Maslow established his theory of motivation, it is known that human beings have, as more immediate motivations, those that refer to meeting physical needs, but once these are satisfied, the need to demonstrate their capabilities is born in the subject and acquires a sense of self-development (Maslow, 1954). Motivation has its evolutionary roots in the emotional responses given by the primitive brain for the same survival and the satisfaction of the most immediate needs (Ceballos-Marón, Sevilla-Vallejo, 2020). However, this is strengthened to the extent that it leads the subject to work on capacities and abilities that allow them to relate to others and lead them to feel self-satisfied.

In the classroom, teachers have the mission of presenting subjects in such a way that grades are not limited to primary needs, such as getting a pass, but taking into account the emotions of the students, encourage them to improve themselves by the same desire to communicate and express who they are. In other words, learning must go from being a means to being the objective itself.

According to Schumann's (1975) theory, motivation is governed by two factors:

Factors concerning the linguistic learning of a group of people (socio-cultural variables). And factors concerning individual differences (affective variables, ego permeability, personality, type of motivation).

Schumann (1975) in his study realizes that socio-cultural variables did not prevent successful linguistic learning, even when they were adverse. On the other hand, individual variables have a determining weight in motivation in the L2 learning process. In this case, we are going to focus on the permeability of the ego. According to the author, as teachers we can propose three models to address motivation:

Integrative motivation responds to the desire to integrate socially into the culture of the target language, which is seen as a positive force for the acquisition of a second language.

Assimilating motivation takes place in cases in which the student opens up to the target culture and considers the L2 speakers as their reference group. The student wishes to be a non-distinctive member of the target language community. This motivation is rare in adult L2 learners, but occurs frequently in children.

Instrumental motivation is aimed at material ends, such as a job promotion. By connecting with aspects of survival itself, it can be a very intense motivation.



In the specific area of motivation for the acquisition of phonetics, [Lauret \(2007\)](#) highlights that motivation consists of wanting to pronounce a foreign language correctly, that is, in accepting to move away from the pronunciation of the mother tongue and work to build competence of reception and emission of new phonemes. For this, there is great theoretical ([Bisquerra, 2003](#)) and applied evidence on the importance of working from emotions to awaken the necessary motivation in learning. In this sense, when adults have a permeable ego, expressing themselves with other phonetics can be a pleasure if an environment that stimulates and protects students is generated. In the case of children, the ego is under construction; for this reason, they have greater flexibility that allows them to pronounce a foreign language more easily. However, in the case of adolescents and adults, they have a more critical perspective, in which there may be greater ego rigidity and the ability to adapt their pronunciation.

These students value to a greater degree the positive and negative effects on the language they are learning, its sound, its speakers, its culture, which can be an obstacle to pronunciation. In any case, the adoption of a new pronunciation necessarily requires an aesthetic adherence to the music and sounds of the language. We can also add that there is an attraction for native speakers and their culture, an emotion that is strongly reflected in people who have good pronunciation. So the affective aspect plays an important role in pronunciation. If the L2 learner does not like the language he is learning, he will hardly have a good pronunciation.

5. Conclusion

The results obtained in the research indicated that the motivation and difficulties in learning the pronunciation of French, a foreign language, are not related in the university students of the sample, since they are highly motivated to learn French, and the reasons behind their weak performance are others.

It has been verified that students who learned a foreign language in adolescence have difficulty in the pronunciation of French vowels, because they did not develop linguistic skills. While students who began to study a foreign language between the ages of 6 and 8 have efficient vowel pronunciation, due to the fact that they acquired and developed a good linguistic competence.

It is confirmed that the most difficult vowels for students to pronounce are the nasal vowels [œ̃] [õ̃] [ɛ̃].

It is found that the mother tongue influences the perception and production of sounds of the French as a foreign language.

Regarding the relationship between motivation and pronunciation, a lower correlation is obtained, the causes of which should be studied in future articles. It is not easy to isolate extraneous variables that may be affecting the results, but we can present, according to the theoretical model, some reasons for further analysis. Although motivation is a very important component to connect the student to learning, it does not represent the entire learning process itself. It may happen that the student is interested, but does not find the necessary tools to develop their skills. It is very likely that this variable is interfering with the age of onset. From the results, it seems that the age of onset is the strongest factor to consider which we can relate to the flexibility of the ego that was mentioned. Then, in the sample, it is possible that the most motivated students do not have enough ego flexibility or predisposition to perceive the phonetic differences exposed in this work. The question should be deepened, doing a comparative study of both variables. However, although not necessarily relevant, there is a correlation between motivation and pronunciation, so we can say that there is a slight tendency for the first one to benefit the latter. In addition, the challenge of working with the students on the permeability of the ego is presented and that would allow increasing both motivation and pronunciation to a greater extent.

6. Acknowledgments

We are grateful to of San Agustín National Public University of Arequipa for financing this research work.

References

- [1] Asher, J. y García, R. (1969). *The Optimal Age to Learn a Foreign Language*. *The Modern Language Journal*,

- 53(5), 334-341. <https://www.jstor.org/stable/323026>
- [2] Bisquerra Alzina, R. (2003). Educación emocional y competencias básicas para la vida. *Revista de Investigación Evolutiva*, 21(1), 7-43. <https://revistas.um.es/rie/article/view/99071/94661>
- [3] Buckley, P., Doyle, E. (2016). Gamification and student motivation. *Interactive Learning Environments*, 24 (6), 1162-1175. <https://doi.org/10.1080/10494820.2014.964263>
- [4] Ceballos-Marón, N. A, Sevilla-Vallejo, S. (2020). El efecto del aislamiento social por el Covid-19 en la conciencia emocional y en la comprensión lectora. Estudio sobre la incidencia en alumnos con trastornos de aprendizaje y menor acceso a las nuevas tecnologías. *Revista Internacional de Educación para la Justicia Social*, 9(3), 1-13. <https://revistas.uam.es/riejs/article/view/12127/12021>
- [5] Chernigovskaya, T. V. (1983). Bilingualism and brain functional asymmetry. *Brain and Language*, 20(2) 195-216. <https://www.sciencedirect.com/science/article/abs/pii/0093934X83900421?via%3Dihub>
- [6] Cortés, M. (2002). *Didáctica de la prosodia del español: la acentuación y la entonación*. Editorial Edinumen.
- [7] Ekstrand, L. (1978). *English without a book revisited: The effect of age on second language acquisition in a formal setting*. Reprinted in S. D. Krashen, R. C. Scarcella, & M. H. Long (Eds.) (1982), *Child-adult differences in second language acquisition*. Malmö, Sweden: Department of Educational and Psychological Research, School of Education.
- [8] Ellis, R.. (1994). *The study of second language acquisition*. Oxford : Oxford University
- [9] Ellis, R. (1997). *Second Language Acquisition*. Oxford: Oxford University Press.
- [10] Flege, J. E. (1996). Age of learning affects rate-dependent processing of stops in a second language. *Phonetica*. 53(3), 143-161. http://jimflege.com/files/Flege_SchmidtWharton_Ageaffects_Phonetica1996.pdf
- [11] Fleta, T. (2006). Aprendizaje y técnicas de enseñanza del inglés en la escuela. *Encuentro: Revista de investigación e innovación en la clase de lenguas*, 16, 51-62. <https://ebuah.uah.es/dspace/bitstream/handle/10017/1200/06-Fleta.pdf?sequence=1&isAllowed=y>
- [12] Guberina. (1991). Rôle de la perception auditive dans l'apprentissage précoce des langues,. *Revue Le Français dans le Monde*, août-septembre, 65-70. <https://dialnet.unirioja.es/servlet/articulo?codigo=7073926>
- [13] Hagege, C. (1996). *L'Enfant aux Deux Langues*. Ed. O.Jacob.
- [14] Kim, K (1997). Distinct cortical areas associated with native and second languages. *Nature*, 388, 171-174. <https://www.nature.com/articles/40623.pdf>
- [15] Lado, R. (1964). *Language Teaching: A Scientific Approach* Hardcover. McGraw-Hill.
- [16] Lauret, B. (2007). Enseigner la prononciation du français: questions et outils 26-27. Ed. Hachette Livre.
- [17] Lenneberg, E. (1967). *Biological Foundations of Language*. Wiley.
- [18] Maslow, A. (1954). *Motivation and personality*. Nueva York: Harper & Row, Publishers. <https://www.eyco.org/nuovo/wp-content/uploads/2016/09/Motivation-and-Personality-A.H.Maslow.pdf>
- [19] Moreau, M-L. y Richelle, M. (1981). *L'Acquisition du Langage*. Editions Mardaga.
- [20] Penfield, W. & Roberts, L. (1959). *Speech and Brain Mechanisms*. Princeton University Press.
- [21] Penfield, W. G. (1965). Conditioning the uncommitted cortex for language learning. *Brain*, 88, 787-798. <https://doi.org/10.1093/brain/88.4.787>
- [22] Polivanov, E. D. (1931). La perception des sons d'une langue étrangère. *Travaux du Cercle Linguistique de Prague*. *Psicología educativa contemporánea*, 28(3), 304-334. <https://www.sciencedirect.com/science/article/pii/S0361476X02>
- [23] Rondal, J. A y Comblain, A. (1991). Apprendre une langue étrangère à 9 ans, dans *Le Français dans le Monde*, 250.
- [24] Schumann, J. H. (1975). Affective factors and the problem of age in second language acquisition. *Language Learning* 25, 209-235. DOI:[10.1111/j.1467-1770.1975.tb00242.x](https://doi.org/10.1111/j.1467-1770.1975.tb00242.x)
- [25] Sevilla-Vallejo, S. (2017). Why should teachers tell stories at class? Narration for Educative and Identity Purposes. I Javier F. García, Teresa de León y Eduardo Orozco (eds.). *Las tecnologías de la información y comunicación para la innovación y el desarrollo* (pp. 287-308). Alexandria Library.
- [26] Sevilla-Vallejo, S. (2018). La aventura interminable. Algunas claves sobre la motivación y los procesos de lectura. *Revista Cálamo FASPE*(66), 1-6. <https://ebuah.uah.es/dspace/handle/10017/41882>
- [27] Sevilla-Vallejo, S. (2019). La lectura viva. Criterios psicológicos y didácticos para fomentar el descubrimiento en los textos. María Isabel de Vicente-Yagüe y Elena Jiménez Pérez (eds.). *Investigación e innovación en educación literaria*. (pp. 241-250). Síntesis.
- [28] Lightbown P. y Spada, N. (2006). *How Languages are learned*,. Oxford University Press.
- [29] Maslow, A. (1954). *Motivation and personality*. Harper & Row, Publishers.
- [30] Tagliante, C. (2005). L'Évaluation et le Cadre européen commun. *CLE international*, 66-67.



- [31] Tomé, M. (1997). *La percepción de los sonidos del francés por los estudiantes españoles*. *Estudios Humanísticos. Filología, Universidad de León*, 2, 263-269.
<file:///C:/Users/user/Downloads/Dialnet-LaPercepcionDeLosSonidosDelFrancesPorLosEstudiante-104896.pdf>
- [32] Troubetzkoy, N. (1949). *Principes de phonologie*. Klincksieck.
- [33] Vanthier, H. (2009). *L'enseignement aux enfants en classe de langue*. CLE International.
- [34] Wachs, S. (2011). *Tendances actuelles en enseignement de la prononciation du français, langue étrangère*. *FLE. Revista de Lenguas Modernas*, 14, 183-196.
<https://revistas.ucr.ac.cr/index.php/rlm/article/view/9687/9134>