

MONTERREY UNIVERSITY
EDUCATION AND HUMANITIES DIVISION

ACQUISITION OF ENGLISH AS A SECOND LANGUAGE FOR HISPANIC IMMIGRANT
ADULTS WITH LOW ACADEMIC AND SOCIOECONOMIC LEVELS IN THE UNITED
STATES OF AMERICA THROUGH A PROPOSED MONTESSORI APPROACH

DEVELOPMENT PROJECT
TO COMPLY WITH THE REQUIREMENTS OF THE INNOVATION AND CHANGE AREA

PRESENT:

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UNIDOS DE AMÉRICA: PROPONIENDO UN ENFOQUE MONTESSORI

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As members of the jury of the master's exam, we certify that we have read and approved the Innovation and Change Project that presents MARCELA LUCRECIA CORONA VILLARREAL and titled ACQUISITION OF ENGLISH AS A SECOND LANGUAGE FOR HISPANIC IMMIGRANT ADULTS WITH LOW ACADEMIC AND SOCIOECONOMIC LEVELS IN THE UNITED STATES OF AMERICA THROUGH A PROPOSED MONTESSORI APPROACH.

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To José, Ana María and Julia
with all my love.

Abstract

Having helped, as a social worker with Hispanic immigrants in Alabama, I found adults with low academic and socioeconomic levels did not speak English or spoke it poorly.

Since then, I have been interested in discovering whether or not, regardless of these characteristics, the adult will be willing and able to undertake the adventure of English as a second language; and if so, to adapt the teaching-learning method for this particular population.

This developing project aims to add to the body of knowledge on the subject, providing an innovative proposal of curricular design for this population using a Montessori approach. The proposal is supported by literature on the characteristics of Hispanic immigrants living in the United States, the features of the different dimensions, approaches, and methodologies used in ESL, and the main elements of the Montessori philosophy and methodology. The curricular pillars in which this proposal is developed are: centered on the immigrant adult; individualized attention; love, understanding, and recognition of the spirit; environment and stimuli; basic language skills; social awareness and; flexibility. This is, without a doubt, an ambitious project. Not only does it imply putting in place an educational project, but also, the Montessori approach and the population that is aimed at could be a real challenge. I believe this proposal, being innovative, has a basis and deserves to be considered for its development and implementation. Its success will depend on the effectiveness in the application of the cores and the curricular elements.

INDEX

GRAPHICS INDEX	9
TABLES INDEX	10
FIGURES INDEX.....	11
TERMS AND ACRONYMS DEFINITIONS	12
CHAPTER	
1. ACQUISITION OF ENGLISH AS A SECOND LANGUAGE FOR HISPANIC IMMIGRANT ADULTS WITH LOW ACADEMIC AND SOCIOECONOMIC LEVELS IN THE UNITED STATES OF AMERICA THROUGH A PROPOSED MONTESSORI APPROACH	
Identifying the Problem	
<i>Why is it so important to learn English as an immigrant?</i>	14
<i>Why haven't you learned English?</i>	14
Research Justification	15
My experience	15
Purpose of the Project	18
General objective	19
Specific objectives	19
Delimitations	19
Diagnosis	
Current reality	20
2. THEORETICAL FRAMEWORK	
The Hispanic Immigrant and his Characteristics	24
Adult Learning	28
Acquiring a Second Language in Adulthood	29
First language literacy (L1)	30
Biculturalism, community, and society	33
Review of Dimensions, Approaches, and Methodologies used in ESL	36
Audio lingual method - ALM	37
Paulo Freire's approach	39
Cummins' BICS & CALP	42
Cooperative Learning	44
Competency-based education – CBE	46
Task-based learning – TBL	49
Project-based learning – PBL	51
Situated learning	54

3. CONSIDERING A NEW APPROACH	
María Montessori	58
Historical framework	58
Biography.....	60
Pedagogical background	
Jean-Marc-Gaspard Itard	66
Edouard Seguin	67
Johann Heinrich Pestalozzi	67
Jean Jacques Rousseau	68
Montessori Philosophy	69
Philosophical principles	
Natural laws and maximum effort principle	71
Independence principle	71
Power of attention principle	72
Will principle	72
Development of intelligence principle	72
Development of imagination and creativity principle	72
Development of the emotional and spiritual life principle	73
Stages of child's growth principle	73
Freedom principle	73
Cosmic and peace education	75
Montessori Method.....	77
Adapted environment	78
Humble teacher	79
Scientific material	81
Control of error	82
Fundamental lesson	83
Three-period lesson	84
Montessori in Adults	86
Montessori Leaders	89
Larry Page y Sergey Brin	90
Jeff Bezos	90
Julia Child	91
4. CURRICULAR DESIGN PROPOSAL	93
Context Analysis.....	95
Future need	95
Benchmark	95
Institutional Foundation	
Philosophy.....	96
Methodology	99
Adapted environment	99
Humble teacher (profile)	101
Didactic material	102
Instructional format	102
Mission	106
Vision	107

Graphics Index

GRAPHIC

1. Total number of people who speak Spanish in the United States	20
2. Immigrants from all over the world	21
3. Total of Hispanics living in the United States	21
4. Annual income in poverty line vs. Quality ESL cost	22

Tables Index

TABLE

1. Synthesis of characteristics, dimensions, approaches and methodologies	56
2. Synthesis of characteristics of dimensions, approaches, and methodologies in common with a Montessori approach	105
3. Synthesis of findings and curricular pillars	109

Figures Index

FIGURE

1. Curricular Design Model	94
2. Adaptation of J. Amaya's Curricular Design Model	94
3. Synthesis of Findings and Curricular Pillar.....	110

Terms and acronyms definitions

For the purpose of this development project, these are the most frequently used terms and/or acronyms. The terms are properly identified throughout the work; however, to facilitate the reading, they are listed below:

ALM:	Audio Lingual Method
ASPE:	Office of the Assistant Secretary for Planning and Evaluation – U.S. Department of Health & Human Services.
BICS:	Basic Interpersonal Communicative Skills
CAL:	Center for Applied Linguistics
CALP:	Cognitive Academic Language Proficiency
CBE:	Competency Based Education
ESL:	English as Second Language
HICA:	Hispanic Interest Coalition of Alabama
L1:	First Language
L2:	Second Language
PBL:	Project Based Learning
Pew Research Center:	<i>(Proper name)</i>
RAE:	<i>(Real Academia Española)</i> . Royal Spanish Academy
SEP:	<i>(Secretaría de Educación Pública)</i> . Ministry of Public Education.
TBL:	Task Based Learning
Generative themes:	Freire defines “generative themes” to the topics and activities that are relevant for the learners (Graman, 1988).

UAB: University of Alabama at Birmingham

US Census Bureau: United States Census Bureau

WTI: Welcoming Tennessee Initiative

Chapter 1

Acquisition of English as a Second Language for Hispanic Immigrant Adults with Low Academic and Socioeconomic Levels in the United States of America through a proposed Montessori Approach

Identifying the Problem

Why is it so important to learn English as an immigrant?

As Hispanics we must be proud of our origins. We have our culture and values well defined. Most of us emigrated to the United States of America looking for greater opportunities, and as Hispanics living in that country we must consider English language acquisition as an essential need. It is as important as finding a place to live. Learning the language will give our families greater opportunities for a better life. Fuentes, Mas, Mein & Jacobson (2011) assert that “learning English is considered necessary to function in society and to progress personally and professionally” (p. 61).

I asked Rosa, “Why haven’t you learned English?”

Rosa has lived in Alabama for over eight years and I was curious. “I am not smart enough”, she answered. “Why do you think that? You were very brave and had lot of courage to come to this country. I think you are smarter than you think. You should try”, I answered. Rosa then admitted she has lost good job opportunities because of the language barrier. In addition, she was afraid to go to English classes and be judged for her little knowledge, age, and legal status. This fact may seem to underestimate her. On the contrary, she is an extraordinary human being. She has taken care of her children and has given them the education that she could not have. However, her low language proficiency has limited possibilities for her and her family.

Unfortunately, there are many “Rosas”. They do not feel capable of learning a new language, perhaps because someone told them they are not good enough or because they think

they are too “old” to learn anything. Their status as adults, as immigrants, or their limited academic education in their home country are significant factors.

“The difficulties faced by newcomers could be from the simplest expression of survival such as soliciting or acquiring subsistence goods to the interaction with teachers in their children’s schools or, even, face some kind of legal appointment. Likewise, their habits are replaced by new ones and their sociocultural context in general undergo dramatic changes” (Fuentes, Mas, Mein & Jacobson, 2011, p. 63).

The aforementioned elements will be addressed in a clear and specific way throughout the development of this project.

Research Justification

Before initiating the research justification in this development project, it should be noted that empirical information has been and remains as a validated method in the field of qualitative research. In this regard, González (2011) affirms that empirical knowledge, “...it is mainly characterized by an experience-based approach that responds directly to one or other social demand, to one or other practical need” (p. 112). I, therefore, believe my experience is a valid and decisive element in the interest and development of this project.

My experience

Fifteen years ago, I undertook an adventure of learning to speak, write, and read in English. I was 23 years old. My level of English was very basic and my exposure to the language in Mexico was practically non-existent. With a plane ticket and some money, I set out for an experience that would change the course of my life. I went abroad with a well-defined goal: learn the language.

At the beginning of my journey I was able to enroll in an intensive English course and dedicate myself for a month to the study of the language. The classes were traditional: an instructor in front of the classroom teaching grammar and some pronunciation. Eventually, I ran out of money, and, to survive, I took on jobs in a cafeteria and selling souvenirs.

I worked hard. I worked days, nights, weekends, holidays; in hot, rainy, cold, and freezing weather; but I achieved part of my goal. Day by day, I listened and practiced simple phrases with clients and with my co-workers. “Where are you from?”, “What are you doing in this country?” “Do you like the city?” These were some of the questions I frequently heard, and I learned to respond to them quite quickly. This gave me confidence and motivation to keep learning.

In my free time, I read children’s stories in English and highlighted words I did not understand so I could look them up later. Reading stories I had read in Spanish gave me the foresight to guess, by context, the other words I did not understand and gave meaning to the reading. I listened to the news in English to educate my ear. I watched TV with subtitles in this language to sharpen reading and pronunciation. I printed many songs and sang them repeatedly following the beat to understand and facilitate the acquisition of the language.

Months later, I was accepted into a famous school and took a six-month class entitled “Communication in Business”. The class was designed for students of English as Second Language, and it gave me a completely different and greater academic experience. Although the class was only once a week, I had tasks to accomplish and articles to read, essays to write, programs to listen to, and a project to design. It was quite a challenge. Especially, considering I had to keep working, even more than before, to be able to survive and, in addition, to pay for the school.

The results were encouraging. My repertoire of conversation topics with customers had increased significantly, and my grammar and pronunciation had improved. Of course, the accent never disappeared, not even after all these years. However, that was not so important since I could communicate fluently in another language. Something almost unthinkable a year before.

A year later, when I came back to Mexico, life led me through different job opportunities that allowed me to practice the language daily and even improve it. Almost immediately after my return, I found a job as an assistant in an automotive company and, because of my level of English, I was sent to the state of Georgia in the United States for a couple of months to help move a line of operations to Mexico. A year later, I was promoted to a quality control position where I had the responsibility of conducting ballistic tests in laboratories in the states of Washington and Michigan, which required me to travel constantly to this country. After some time, I received a new promotion in the materials department and, although it did not require traveling, most of the time I had to communicate with providers – all Americans and Canadians – in English by e-mail and/or phone calls.

A couple of years later, my life took a new twist and I migrated to the United States along with my husband for a job opportunity. We lived in Alabama for over six years. Four of these, I worked in the materials area of another automotive company where I was responsible for production planning, materials supply, and customer service for three plants located in Alabama and Tennessee. Ninety percent of my work was conducted in English. At the end of this period, I decided to make a change in my profession and started working in a non-profit organization helping Hispanic women surviving domestic violence. During this time, I also earned a master's degree in communication management taught completely in English. Something that would not have been possible not for the language experiences I had years before.

Currently, I am an English teacher for children of upper elementary at the Sierra Madre Montessori School in San Pedro Garza García, Nuevo León, México.

My experience demonstrates that the acquisition of English as a Second Language changed my life. Before acquiring the language, I was a newly graduated professional working in a hospital as a receptionist earning minimum wage. My intention was never to be stuck in a low paid position. I knew I had to learn English in order to find new opportunities and to improve the quality of my life.

Purpose of the Project

Having helped, as a social worker with Hispanic immigrants in Alabama, I found adults with low academic and socioeconomic levels did not speak English or spoke it poorly, even, after having lived in the country for more than five years. This situation limited opportunities for better-paid jobs and, consequently, a better standard of living.

From my experience and having learned English as an adult woman, it was clear to me the acquisition of a second language in adulthood was possible. However, this was not the case within the group of people I was helping. So, why didn't they learn the new language, even five or ten years after they arrived? The obvious answer would appear to be their lack of involvement in learning and not from the amount of time spent in the country. Factors such as the fear of being deported, fear of making mistakes, lack of involvement with the culture of the host country, coexistence only with people from the same culture, socioeconomic level, lack of motivation, and previous educational level, can block the acquisition of a new language.

Since then, I have been interested in discovering whether or not, regardless of these characteristics, the adult will be willing and able to undertake the adventure of English as a second language; and if so, to adapt the teaching-learning method for this particular population.

General objective

To present an innovative curriculum design proposal for the learning of English as a second language in Hispanic immigrant adults with low academic and socioeconomic levels living in the United States of America by adapting the philosophy and some tools of the Montessori method.

Specific objectives

1. To examine this vulnerable and minority population. Their characteristics and current opportunities.
2. To analyze different types of learning methods used in ESL programs and not used.
3. To analyze the possibility of applying the Montessori approach to this particular population.

Delimitations

It is of paramount importance to emphasize the present work is a development project which chief aim is to present an innovative proposal of a curricular design, not the curricular design itself. The latter is intended to be achieved afterwards in a doctoral dissertation, since it is within my future plans.

The information presented here is the product of empirical knowledge, existing literature, and analysis. Therefore, this proposal will not be proved during the course of this work.

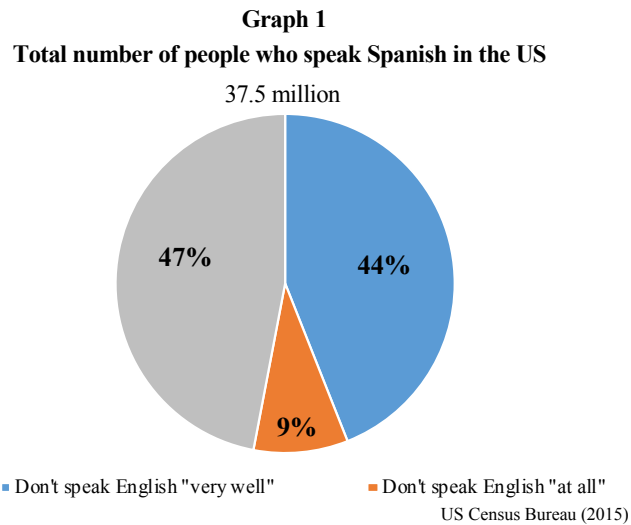
Research-action studies will be necessary at a later date to determine whether the proposal is successful or not, and/or to adapt it or modify it in order to achieve the desired learning.

Diagnosis

Next, I will present the most recent statistical data reflecting the current status of immigrant Hispanics regarding the acquisition of English, academic preparation, and income.

Current reality

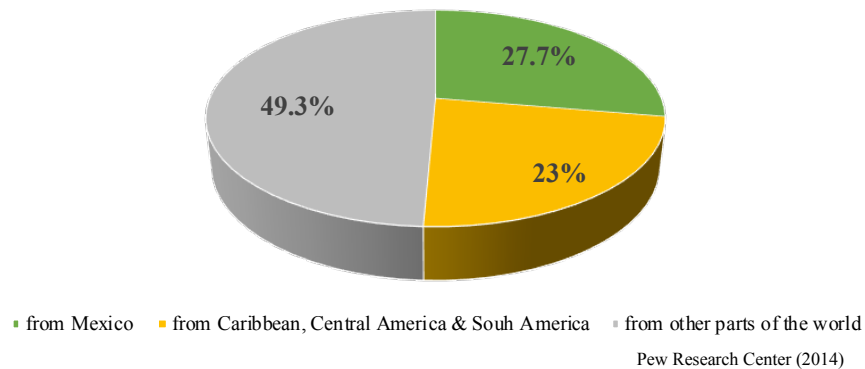
The US Census Bureau (2015) revealed that, between 2009 and 2013, more than 37.5 million people over 5 years of age living in the United States spoke Spanish. Of this population, 16.3 million (44%) did not speak English “very well”, and of these, 3.4 million (9%) did not speak it at all. (Graph 1).



Although the exact data for adults over 18 years of age who speaks some English or are “non-proficient” is not available, it is interesting to note, according to the Pew Research Center (2015), 14.3 million adults (over 18) do not speak the language “very well”. Furthermore, Pew Research Center (2014) estimates there are more than 42 million immigrants from around the world living in the United States, of which 27.7% arrived from Mexico while 23% arrived from the Caribbean, Central America and South America (Graph 2).

Graph 2
Immigrants from all over the world

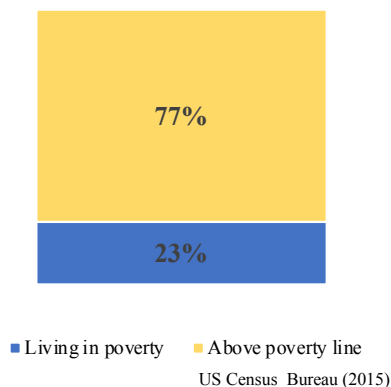
42 million



Let us also consider the education level of immigrant adults over 25 years of age. In this regard, the census estimates by 2015 there were at least 6.3 million Hispanic immigrants with less than a high school education level (US Census Bureau, 2015).

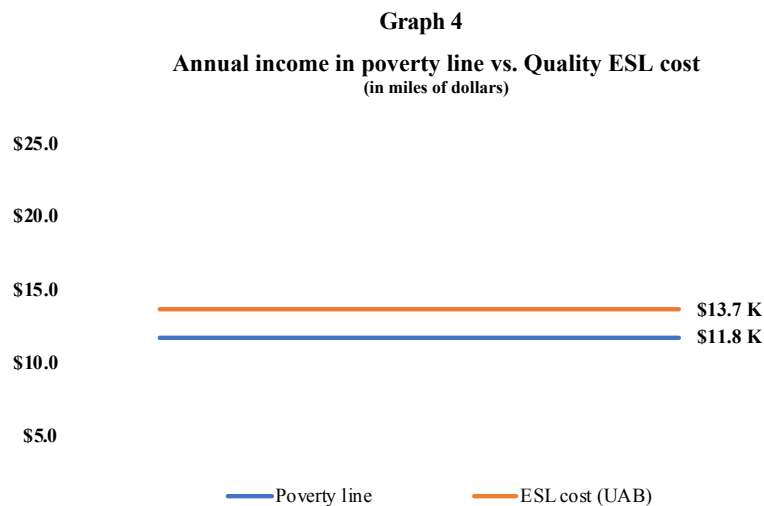
On the other hand, as shown in Graph 3, with regard to the total number of Hispanics in the United States (55.3 million), 12.5 million of these (23%) live below the poverty line (US Census Bureau, 2015).

Graph 3
Total of Hispanics living in the US
55.3 million



This translates to people with an annual income of (or less than) \$11,800 dollars (ASPE, 2016). According to statistics compiled by professors at Auburn University in Montgomery (Alabama), the unemployment rate among the Hispanic immigrant population is 12.9% and they are more susceptible to living in poverty than non-Hispanic whites and non-Hispanic blacks (Djamba, Davidson & Winemiller, 2012). Consider the U.S. Department of Labor (cited in CAL, 2010) in 2007, that an immigrant's average weekly wage was \$554 dollars compared with \$722 dollars earned by a person who was born in the country. This is alarming for a person in a country where a reputable ESL course may cost more than \$13,700 dollars a year (University of Alabama at Birmingham, 2016) (Graph 4).

In summary, the Center for Applied Linguistics (CAL, 2010) reports the factors affecting the level of income in the immigrant population are education, time of stay in the country, immigration status, and English language proficiency.



ASPE (2016); US Census Bureau (2015), UAB (2016)

This data suggests to further study this vulnerable and minority population, its characteristics and its needs. One of these factors is the acquisition of English as a second language to improve the quality of their living standards.

These are the first steps to try to find out whether or not, regardless of socioeconomic status and previous educational level, the adult is capable and has the motivation to undertake the challenge of English as a second language if given the opportunity; and if so, to adapt the teaching-learning method for this particular population.

To pose these issues, in the second chapter, I will address the literature on some of the characteristics of this population, the adult education in general, the acquisition of a second language in adulthood, semi-literacy in the first language, and biculturalism, community, and society. In addition, I will explore, describe, and analyze different approaches used for teaching ESL in adults and the characteristics of other learning approaches that are not applied specifically for this purpose.

Subsequently, in the third chapter, literature on the Montessori philosophy and methodology will be reviewed and explored as a possible new approach.

The fourth and final chapter will present a proposal, based on this approach, for the development of a curricular design in the acquisition of English as second language in Hispanic immigrant adults with low academic and socioeconomic levels in the United States.

Chapter 2

Theoretical Framework

The Hispanic Immigrant and his Characteristics

To give a better picture of a Hispanic immigrant life and before addressing the characteristics of the Hispanic immigrant, I will give a brief introduction on the migratory climate that has been experienced in some states of the United States of America in recent years.

The United States of America has been known as the land of opportunity and has welcomed immigrants around the world who have come to pursue an “American dream”. For many generations families have established themselves in the country and in so doing have enriched a diverse society. However, both documented and undocumented immigrants have been coming to the United States of America at a faster pace. There are currently 55 million Hispanics living in the country (US Census Bureau, 2015), and Sanchez-Birkhead et al., (2011) estimate the population will be 133 million by 2050. This situation has caused controversy and debate among citizens, government leaders, and politicians around the country.

King et al., (2014) mention that lack of consensus at the national level has caused states to implement their own immigration policies. For instance, Georgia with the HB 87 law, Arizona with the SB 1070 law, Alabama with the HB 56 or Texas with the SB4; also, Indiana, South Carolina, and Utah have passed laws that impose immigration policies and discourage undocumented immigrants from settling in these states (King et al., 2014; White, Yeager, Menachemi & Scarinci, 2014; Kopan, 2017).

To give an example of these laws, and from my own experience, I will briefly describe Alabama’s HB 56. This law was passed in 2011, and although most parts of it were blocked, the spirit of this law was to discourage immigration and make the immigrants feel unwelcomed. HB 56 allowed police officers to review the immigration status of any person who they reasonably

suspected as being in the country illegally. Additionally, people, viewed as suspect, were required to provide their immigration status when they applied to get license plates, and driver or businesses licenses (HICA, 2011). The Huntsville Times (2012) reported that the former Alabama representative Micky Hammon, R-Decatur, co-sponsor of the bill, said the goal was “to attack all aspects of the life of an illegal alien” (Lawson, 2012). Rep. Mike Hubbard and Senator Del Marsh quoted in the Birmingham News (2011): “... we will not allow Alabama to be a sanctuary state for illegal immigrants by tolerating their presence and permitting them to access state services”. Although HB 56 was aimed at immigrants from around the world, the intent of the law, in my opinion and based on the previous facts, was to target the newly expanded Hispanic population. Some opponents of the law have pointed out that the implications were greater, such as attacking a community and creating racial profiling.

Many things have changed since this law appeared in 2011; the current national political rhetoric makes it worse today for Hispanic immigrants.

The characteristics of the Hispanic immigrant, in general, are varied since some people enter the country legally and some others do not. The “legal” immigrant could be a person with a PhD who comes to work at a university or a refugee without basic education completed in his home country. Concerning this, the Center for Applied Linguistics (2010), mentions that the population born outside the United States consists of legal immigrants (including naturalized citizens), refugees, and undocumented immigrants. The undocumented Hispanic immigrant usually presents a picture of similar characteristics, albeit with some differences.

A study by the Pew Hispanic Center where 14,000 Latino adults were interviewed for their English-speaking ability, found that the level of education, the age at which they arrived in

the United States, and the number of years living in the country had an impact on their ability to learn English and to use it frequently (CAL, 2010).

According to Motel & Patten (2012), the ten major Hispanic groups are: Mexicans, Puerto Ricans, Cubans, Salvadorans, Dominicans, Guatemalans, Colombians, Hondurans, Ecuadorians, and Peruvians. Concerning this, Passel, Cohn & Gonzalez-Barrera (2012), report, for instance, that “compared with other foreign-born residents of the U.S., Mexican-born immigrants are younger, less educated, and less likely to speak English very well, according to tabulations from the 2010 American Community Survey” (para. 3).

Motel & Patten (2012) report that while Mexicans-born immigrants have the lowest average age of 25 years, Hispanics of Cuban origin have the highest average age of 40 years. In addition, they report 32% of Colombians are more likely to immigrate with a university degree while 7% of Salvadorans are less likely to have a university degree.

Regarding undocumented immigrants, Passel & Cohn (2009) comment that compared to previous years, immigrants are now geographically scattered in several states. In the 90’s most were concentrated in the state of California. However, the trend of living in metropolitan areas is still happening as 94% of undocumented immigrants live in large cities, according to their report.

An important characteristic to note about undocumented Hispanic immigrant adults is the vast majority of their children are born in the United States and therefore the structure of the home of an immigrant family is more inclined to be formed by married (or cohabiting) couples with children (Passel & Cohn, 2009).

Another characteristic of undocumented Hispanic immigrants is the educational profile of adults between 25 and 64 years of age. Compared to other immigrants or American citizens, these immigrants have a very disproportionate inclination to have very low levels of education.

At least 35% of undocumented immigrants have achieved less than a middle school level (Passel & Cohn, 2009).

In addition, due to the educational level of this population, they are more likely to work in less qualified jobs or in office jobs. “Consequently, undocumented immigrants are overrepresented in several sectors of the economy, including agriculture, construction, leisure/hospitality and services” (Passel & Cohn, 2009, para. 16).

From another study, according Passel & Cohn (2009), most undocumented Hispanic immigrants do not have medical insurance. This trait in the population represents a significant problem. Sanchez-Birkhead, Kennedy, Callister & Miyamoto (2011) mention that Hispanics living in the United States for more than five years, have more obesity, hypertension, and heart disease than those who have been less time in the country. In this regard, the authors mention that the causes are varied, but they are concentrated in the following: “socioeconomic conditions, cultural health beliefs, past experiences with health care systems, citizenship status, lack of medical insurance, language barriers, and level of education may contribute to Hispanics’ worsening health conditions after arriving to the US” (p. 1168).

Immigrant Hispanic women also have a high mortality rate due to late diagnosis of diseases such as breast cancer or cervical cancer. According to Sanchez-Birkhead, Kennedy, Callister & Miyamoto (2011), this is because these women have less information about the harmful symptoms or early warning signs of these types of cancer, do not believe in monitoring and early detection procedures, and do not seek immediate care for health problems.

In summary, Hispanic immigrants have a wide range of traits depending on legal status and the conditions in which they arrived in the country. The population to which we are directing this thesis has similar traits. These traits may be low academic level in their country of origin,

little or no command of English, holding low-skilled and poorly paid jobs in agricultural and construction sectors (among others), are concentrated in large cities, and live with their spouse and with their children (many who are American citizens). They tend to take little care of their health for lack of information and for the high cost of insurance and medical services which makes them more likely to suffer from obesity, hypertension, heart problems, breast and cervical cancer.

The features mentioned above will be considered for the curriculum design proposal.

Adult Learning

The widespread idea is that adults are less willing to learn anything for a simple reason: our brain is less plastic than children's (Díaz-Sánchez y Álvarez-Pérez, 2013).

Jensen (2005) mentions that between birth and two years of age, the brain goes through a series of "sensitive periods" where the basics are acquired, especially the language, which will later help to develop skills such as reading, writing and reasoning. It also assumes the child's brain, after five years and up to twelve, is at a very important stage for the development of these skills. During this period, the brain reaches 90% of its adult weight and then it enters into a process of "pruning"; that is, the disposal of the connections that are not being used, "...weak and rarely active synapses are eliminated" (p.29).

Nevertheless, Jensen himself (2005) argues that a person is able to learn motor skills, even a second language, at 20 years of age since they do not require a defined, critical and biological period to be acquired; although, the "preferred periods" for them are at an earlier age.

Comparatively, Knowland and Thomas (2014) from the perspective of neuroscience, investigated the possibility of acquiring a new knowledge or skill in adulthood. Based on researched literacy studies, they concluded an adult who grew up illiterate is able to learn to read

and/or write and that, when compared to an adult who grew up literate, the difference would be based on reading time and not with comprehension, "...adults will need more practice to establish literacy than children learning the same task" (p. 106). They suggest a number of principles and implications for lifelong learning. These are:

- 1) Practice is crucial, if the goal is to achieve automaticity.
- 2) Motivation to achieve and attention to stimuli are necessary aspects of learning in adulthood.
- 3) Learning from a live tutor and actively engaging with materials, rather than relying on passive presentation, may be more important for adults.
- 4) The order in which the elements of a skill are taught is an important consideration in curriculum development.
- 5) The learning environment should be noise-free as much as possible.
- 6) When learning a distinction which was not previously relevant to the individual, materials should initially exaggerate relevant perceptual features.
- 7) Getting a good night's sleep will consolidate the learning in adults (Knowland y Thomas, 2014, p.116).

So, is it possible to learn a new language in adulthood? What are the factors that facilitate or block the learning of a new language?

Acquiring a Second Language in Adulthood

As mentioned above, by my own experience, the answer to the first question is "yes". However, it is essential to consider the factors that facilitated my learning process: high motivation, defined objectives, literacy in the native language, commitment to host culture, among others. My goal was never to be a receptionist for the rest of my life.

In this regard, Piehl (2011) mentions similar tools to help with the process of acquiring a new language. She suggests the following: intensive study of the language in the country of origin, experience of the house where one lives, interactions with companions, classroom instruction, and involvement of the culture.

We have seen that it is possible to learn a second language (in this case English) when we consider certain important factors that facilitate the acquisition. From the perspective of several authors and, based on my experience with immigrants in Alabama, there are some factors that block ESL learning. They may be: fear of deportation, low self-esteem, xenophobia, fear of error, anxiety, lack of involvement with the culture of the host country, coexistence only with people of the same culture, sociocultural level, low economic resources, lack of motivation, and previous educational level (McCluskey, 2011; Zacharakis, Steichen, Sabates y Glass, 2011).

Additionally, Finn (2011) mentions that the complex life of some adults as “erratic work schedules, low-paying and low-skills jobs, working multiple jobs, and lack of job stability” (p. 35), are also factors that can block the learning process.

The National Assessment of Adult Literacy – NAAL (Cited in CAL, 2010), reports the percentage of adults who spoke Spanish with a literacy level below the basics increased from 35% to 44%.

All of the factors that block the acquisition of a new language are important, but in this project, we will focus on two of them due to the relevance for this population: adult literacy in the first language, and biculturalism, community, and society.

First language literacy (L1).

According to the research of Díaz-Sánchez and Álvarez- Pérez (2013) the acquisition of a second language (L2) will always be mediated by the schemes established in the native language

(L1). “In this aspect, we can see that the conceptual representations of the L1 intervene in the semantic processing of a L2” (p. 219). In the grammatical aspect, the authors suggest mental processing is alike when grammar is similar in terms of rules, roman alphabet, etc., in both languages.

In the same way, Sparks, Patton, Ganschow, Humbach & Javorsky (cited in Bigelow and Schwarz, 2010) point out that oral competence and literacy in the first language (L1) will determine the oral competence and literacy in the second language (L2). In summary, it could be indicated there is a difference in language processing and how neuropsychological tasks are carried out among literate individuals in the first language. (Bigelow y Schwarz, 2010).

In that respect I could assume, because of my native language in terms of language proficiency, grammatical aspects and, in general, by my previous educational level, I had the capability to comprehend English grammar, and to relate conceptual representations at an academic level.

On the other hand, Lopez (2011) states that, although it is true that the native language is a very important factor in the acquisition of meaning in a second language, it is also true there is the need to differentiate grammar of English and Spanish to avoid literal translations and poor writing, especially in more advanced English levels.

Now, I think it is essential to consider the causes of semi-literacy or illiteracy in the first language (L1). These can be varied, but are generally attributed to political circumstances in the country of origin (e.g. civil war); cultural reasons (e.g. gender); and, most importantly, extreme poverty (Bigelow y Schwarz, 2010). These causes are, in many circumstances, the same reasons why individuals decide to immigrate to another country in search for survival opportunities.

As far as we are concerned, it is of paramount importance to point out that immigrants

with low previous educational level are not necessarily people with learning disabilities or with intellectual deficiencies. They are people who, often, for reasons other than their intellectual capacity (e.g. lack of economic, political or social opportunities) were unable to initiate or continue their "formal" studies in their country of origin. However, this does not mean they have not had an "informal" education.

These people have learned to survive in a world full of obstacles; they develop other types of survival skills and superior resilience. Many of them have suffered hardships such as hunger, violence, cold, discrimination, among others, and have moved forward due to the love for their children and their determination to improve their living conditions. These people, those who show courage, strength and determination to seek greater opportunities are the individuals on who we will focus.

So, it is significant to consider the strengths of these people and not just the weakness when trying to teach them a new language.

Spruck (2008) states that in the current ESL system, the levels of schooling and literacy that immigrants bring from home are not officially considered. This, unfortunately, affects more adults with less schooling in their native language and limits the effectiveness of the program. Eventually, many of these adults tend to leave the program in the early stages and will not return to school. They are convinced of their inability to learn, rather than the failure of the program to consider their needs.

In this respect, Burt, Peyton, Adams, Center for Applied Linguistics & National Center for ESL Literacy Education (2003) consider that special attention should be paid to the classification of adult literacy in their native language for the correct management of second language teaching. A person could be classified as *pre-literate*, *illiterate* or *semi-literate*. The

first classification (*pre-literate*) refers to people who, by culture, literacy is not necessary or is not part of their daily life. In the second class (*illiterate*), literacy is necessary, but because of social, economic and cultural problems these people were unable to attend school. In the last class (*semi-literate*) the adults had a certain formal education, but it was interrupted by social, economic, political problems, etc.

For the purpose of this development work and for the personal interest manifested at the beginning of this project, we are focusing in the *illiterate* and *semi-literate adults*. “there is a need to value the literacy instruction in their native language before, or at the same time, of the literacy in English” (p. 9).

Therefore, I consider essential to address certain “topics in Spanish at the moment (or before) to teach English as a second language.

Biculturalism, community, and society.

The Royal Spanish Academy – (RAE, 2017) defines the word *society* as “a group of people, villages or nations that coexist under common rules” and as “natural or agreed group of people, organized to cooperate in the achievement of certain purposes”.

The word *community* has seven definitions in (RAE, 2017), some of them very similar to those of *society*; however, we will consider the following: “group of people linked by common characteristics or interests”.

According Dewey (1998) “society is a word, but many things” (p. 4) and affirms that within big social organizations there are political, industrial, religious, and scientific subdivisions, among others. In a society, there is also a diversity of languages, traditions and moral codes.

On the other hand, *culture* is defined by the RAE (2017) as “set of lifestyles and customs,

knowledge and degree of artistic, scientific, and industrial development, in a time, social group, etc.”

Therefore, we could refer to the *Hispanic or Spanish-speaking Community* within the *American Society*. This Hispanic community will have its own *culture* or *cultures* according to the lifestyles, customs, and knowledge of the Hispanics themselves. A Mexican or a Central American may have diverse cultural traits, but both will belong to the Spanish-speaking community within the American Society.

Now, we will review the literature about biculturalism and its benefits within a society. According Basilio et al., (2014), biculturalism can be understood as the exposure to two cultures by demographic factors; for example, a Mexican living in the United states. However, this definition does not consider the individual differences. A better conceptualization of the term is “a psychological construct that characterizes the degree to which individuals have internalized aspects of two cultures in terms of their identity, behavior, beliefs, attitudes, values, and worldview, and can respond functionally to both ethnic and mainstream cultural cues” (Theoretical Conceptualizations of Biculturalism section, para. 2). This definition is more accurate since it considers the process of cultural adaptation and not only a demographic factor.

Dewey (1999) tells us that diversity introduces changes and progress. To this respect, Daniel & Huizenga-McCoy (2014) claim that students with diverse linguistic and cultural characteristics are more engaged when classroom instruction focuses on significant aspects that affect their particular communities and circumstances.

LaFromboise et al. & David, Okazaki, y Saw (cited in Basilo et al., 2014) affirm that bicultural competition can be achieved through the following:

- a) Being knowledgeable about cultural beliefs and values.

- b) Having positive attitudes toward both cultural groups.
- c) Having bicultural self-efficacy, which is the belief that one can effectively function in both cultures
- d) Being able to communicate with members of both cultural groups, including language competence and nonverbal communication.
- e) Possessing a repertoire of culturally-situated roles.
- f) And being grounded in both cultures through social networks (Basilo et al., 2014, Theoretical Conceptualizations of Biculturalism section, para. 2).

In contrast, assimilation of the immigrant refers to eliminating the national identity, replace the native language with the language of the new country, and adopt the habits of the majority; however, most integration models do not suggest the abandonment of the native language or culture, but the stimulation of the adaptation of both cultures: the immigrant and the hostess (Spruck, 2012).

As mentioned above, one of the factors necessary to achieve the acculturation of a new culture is the acquisition of the language.

Haja Mohideen Mohamed & Tasdiq Nomaira (2015) claim that the minority culture may feel less intimidated and more welcoming by the host culture when the members of the first speak the language fluently and when they are socially competent and have greater emotional support. In addition, as stated by Spruck (2012), civic engagement is, along with the acquisition of language and other factors, the pillar to achieve acculturation.

The United States does not have a coherent immigration policy; however, some states develop initiatives to help immigrants integrate into civic affairs and become citizens who respect the common good of the new society. Some examples of these initiatives mentioned by

Spruck (2012) are *Maryland Council for New Americans*, a civic-private partnership, and *Welcoming Tennessee Initiative (WTI)*, which seek to integrate new residents into the community. However, big cities like San Francisco or Houston have their own *civic participation and immigration issues* offices where opportunities for education and community participation are offered. Another example is the association where I worked in the state of Alabama: *Hispanic Interest Coalition of Alabama (HICA)*, a non-profit association dedicated to the social, civic, and economic integration of Hispanic families in Alabama.

In my experience, the adult immigrant sometimes manifests denial to leave his culture aside to join a new one. Consequently, this population tends to isolate itself, thus avoiding the continuous exposure to the language and its constant practice.

This project aims to raise awareness about the advantages and benefits of biculturalism and seeks to involve the student in the host society through the design of different intercultural activities.

Review of Dimensions, Approaches, and Methodologies used in ESL

In this section, literature will be reviewed, and different dimensions, approaches, and methodologies used in ESL will be briefly exposed. Due to the wide variety of adult students who enroll in various programs to acquire English as a second language in the United States, no model or program has proven consistently effective in the service of these students. (Center for Applied Linguistics - CAL, 2010).

Adult ESL programs serve a diverse population through a variety of funding streams, depending on learners' status (e.g., immigrants, refugees, asylees), goals (e.g., basic or functional literacy, family literacy, workplace education, citizenship preparation), and circumstances (e.g., farm workers, displaced workers, incarcerated youths and adults).

The diversity of learner populations served, program settings, systems of delivery, and instructional philosophies result in a wide range of program designs and instructional practices (CAL, 2010, p. 19).

Nevertheless, the objective of this section is to expand our vision for the design of a new curriculum that benefits Hispanic immigrant adults with low academic level in the United States of America.

Audio lingual method - ALM.

The professor of English and literature at the University of Jordan Al'balqa, Abu-Melhim (2009) tells us that audio-linguistic methodology was developed in the 1940s, almost at the end of World War II in response to the need to develop effective auditory and oral skills, rather than writing, reading, and grammar skills. The United States was willing to end linguistic isolation and to learn new languages. In this regard, the author gives us some principles that are central to the audio-linguistic method:

1. Languages must be set in their own contexts as unique systems.
2. Speakers may know little about a language, but still be competent in its use.
3. Language learning is a process of activities resulting in habit formation.
4. Regarding behavioral psychology, the audio-lingual theory incorporates the notion of stimuli and responses; the subject is given a stimulus and must respond to it. "Correct" responses are then rewarded, or positively reinforced. (Abu-Melhim, 2009, p. 40).

Alkhuli (cited en Abu-Melhim, 2009) assumes this method was developed following a certain sequence in language skills: listening, speaking, reading, and finally writing. This order implies that students speak what they have listened to, read what they have spoken, and write what they have read. This sequence is one of the main characteristics of the method.

The theory is that a good listener will, eventually, become a better speaker; and when he pays attention to what is being said and spoken, he will internalize linguistic characteristics of pronunciation and intonation, thus making him a better speaker. When the person has mastered, to some degree, these first two skills, he can then deepen into reading in a more natural and simple way, especially if the reading material is linked to the listening and speaking material. At this stage, the correspondence of phonemes is very important. Finally, writing is considered to be subordinate to oral learning (Abu-Melhim, 2009).

Abu-Melhim (2009) also mentions that another important characteristic of the audio-linguistic methodology is the teaching of structural patterns through tools such as repetition or substitution. An example of these patterns could be: Article-adjective-noun (*The pink dress*). Additionally, the author says native language takes a minimal role, although the teacher can have access to it, if necessary, or if the students need to say something between them.

In this respect, Yanhua (2014), states that the main technique used in this methodology is repetition. Repeat constantly until the student feels natural to say a sentence. And it is the teacher's responsibility to avoid mistakes and correct them immediately to prevent the error from being part of a bad habit.

Finally, the introduction of new material into the dialogue is another characteristic of this approach. The goal is to create relaxed conversation environments for the student while introducing new material to learn (Abu-Melhim, 2009).

On the contrary, Yanhua (2014) sees repetition as a disadvantage of this method since it could be boring and tedious for adults because they get tired of repeating structures and rarely commit in the long term in this type of instruction. "Students are not learning to communicate

spontaneously as a native speaker would. Rather, they are memorizing set phrases and repeating them on command.” (Abu-Melhim, 2009, p. 43).

Paulo Freire's approach.

Paulo Reglus Neves Freire (1921 – 1997) was a Brazilian pedagogue and philosopher born in one of the poorest regions of Brazil. He, himself, suffered the devastating consequences of hunger, during the great global depression in the late 20 's. These experiences were decisive in his educational thought that sought to raise the status of unprotected and illiterate classes (López, 2008).

His educational thought became popular during the 60's and 70's first with *Education as the Practice of Freedom* and then with, *Pedagogy of the Oppressed*. The latter was first published in Mexico in 1970 since he had been exiled from his native Brazil because of his political and revolutionary ideas. Later, this work was published in more than 20 languages, including Portuguese (López, 2008).

In this regard, Estupiñan and Agudelo (2008), mention that Freire's pedagogy is related to his sensitivity towards the educational and social problems of his time. He intended to educate millions of illiterates and raise awareness of their "oppressed" position to liberate them from their "oppressors." According to his ideology, traditional pedagogy (also called banking model of education) was not reached by the masses, but only by the privileged. Therefore, Freire considered that the oppressed should be aware of their reality and commit to their social and political transformation (Estupiñan & Agudelo, 2008; López, 2008).

Regarding “banking model of education”, López (2008) mentions that students are passive since they receive the knowledge that must be kept and filed. The best teacher will be

that who transmits more knowledge, and the best student will be that who accepts it and memorizes it.

So, Freire, knowing how far this model of education was from real life, especially for the oppressed and illiterate masses, decided from reality to educate to these people in a radical way. For him a radical man was:

This individual is not afraid to confront, to listen, to see the world unveiled. This person is not afraid to meet the people or to enter into a dialogue with them. This person does not consider himself or herself the proprietor of history or of all people, or the liberator of the oppressed; but he or she does commit himself or herself, within history, to fight at their side (Freire, 2005, p.34).

Freire (2005) affirms his essay, *Pedagogy of the Oppressed*, is not based on intellectual delusions nor is the product of mere theoretical conjectures. It is the result of specific situations, expressing the feeling and opinion of peasants, workers, and middle-class men and women with whom he had been working.

On the other hand, in an article published about the application of Freire's pedagogy in the learning of ESL, Graman (1988), while working with adults in a rural area of Colorado, realizes that by focusing on language as such, it destroys his function as a tool, since it is very difficult to make a transition from mere mechanical exercises of grammar and pronunciation to the topics relevant to his students. Therefore, he decided to follow Freire's approach to give his ESL classes.

Graman (1988) argues that dialogue of "generative themes", as Freire calls the topics relevant to students, is the type of activity in which students must engage to build knowledge and language in an active and critical way. On the contrary, non-authentic language, which Freire

calls "verbalism," divides the reality of these people with language and learning. Thus, education for Graman (1988) is an attempt to connect the reality of the teacher and the student to learning. "...people learn language best when the focus is on content, as in natural language acquisition, rather than on the explicit instruction of grammar, vocabulary, and pronunciation" (p. 438).

In addition, Graman (1998) states that by having a critical dialogue on issues students are interested in their day to day, for example something related to work in the field, they will connect concrete ideas with more abstract ones, e. g, rights or responsibilities.

Freire's pedagogy, unlike others used in ESL, considers a very important aspect in education: humanization. For Graman (1998) an approach that addresses the existential, political, and axiological issues as part of the lives of students and teachers is needed. "If the teachers and students want to encourage critically conscious second-language learning, they should take action to put Freire's pedagogy into practice in the classroom" (p. 441).

Based on the above, we can say Paulo Freire revolutionized the way to address education of the masses and those who have less. He questioned social justice and the awareness of those at political and economic disadvantage within a society and sought their freedom. Graman (1998) applied the pedagogy of Freire in ESL to a vulnerable population and proposed a method in which teachers and adult students with low linguistic competence, could elaborate their "generative themes" and could connect their experiences with the world and the language. However, this proposal has its challenges and limitations as well. The most difficult element to develop, when applying Freire's pedagogy, is to raise awareness and make them think for themselves, especially when they have spent a lifetime following instructions and doing what others want or ask for.

Freire's approach has very important elements to consider for this project; mainly, the humanization of education and raising awareness about the reality these people are living and making them "free" from their own limits.

Cummins' BICS & CALP

Jim Cummins, from the University of Toronto, introduced Basic Interpersonal Communicative Skills (BICS) and Cognitive Academic Language Proficiency (CALP) in the late 1970s in response to John Oller's affirmation who stated that all individual differences in language competence can be considered by a single factor called Global Language Competency. In an article published in 1999, Cummins responded to this statement saying not all aspects of language use and performance should be incorporated into a single global dimension (Cummins, 1999).

Cummins (1980) makes a distinction between two types of language acquisition skills: BICS (Basic Interpersonal Communicative Skills) are the superficial skills of speech and listening, generally acquired easily and quickly by students who spend a lot of time with native speakers of the language. CALP (Cognitive Academic Language Proficiency), on the other hand, is the basis of academic ability for different areas.

These two dimensions of language acquisition are, to some extent, independent, but they are related. Cummins (1999) exemplifies the difference with two monolingual siblings: one is 12 years old and the other one is 6. Both know the same language, but there is great distance in their ability to read, write, and vocabulary (CALP); however, phonological and fluency differences are minimal (BICS).

In the same way, Cummins (1999) suggests that for immigrant children and young people who are learning a second language (L2), BICS can be acquired over a period of two years (in

people who are immersed in the language) but, CALP may take 5 to 10 years to reach the desired academic level. “Thus, there are clear differences in acquisition and developmental patterns between conversational language and academic language, or BICS and CALP” (p. 2).

For Cummins (1999) the implicit assumption that being able to converse fluently in English would mean having a good command of the language is wrong, because, while the person can have a conversation without problems, this does not mean that he can make inferences or draw conclusions from a literature text. BICS / CALP have different patterns of development and which should be considered when learning a second language.

On the other hand, it should be noted that Cummins (1999) also refers to the Common Underlying Proficiency – CUP as a base where there is an interdependence between L1 and L2 of CALP. In this respect, Cummins assures that there is a strong relationship in the Cognitive Academic Language Proficiency (CALP) between the two languages. That is, if a child is proficient in an area in their native language, the transfer of that knowledge to the second language would be subtler. So, for Cummins (1999) a bilingual program should be just that, bilingual; taking, for example, a reading class in Spanish and parallelly in English.

For this project, we have to consider the population we are addressing is not children, but immigrant Hispanic adults with low academic and socioeconomic levels. Hence, our first goal is to develop the Basic Interpersonal Communicative Skills dimension (BICS); that is, to help this population to learn basic English so they can communicate. But we will also consider the Common Underlying Proficiency; however, unlike Cummins, not in CALP but in BICS. In other words, the use of Spanish will not be banned from the program or the environment; this doesn't mean translating and/or using Spanish as the only alternative. The transfer of information and knowledge from one language to another, in my opinion and by own experience, can be a key

factor to succeed acquiring a new language. The foregoing does not mean designing a bilingual program, but including some classes in Spanish to acquire some knowledge in their first language (which they may not have acquired in their home country) and then in the second language.

Cooperative learning.

Slavin & Johnson (1999) claim that research on cooperation dates back to the 1920's; however, it was until the 1970's that research and applications of cooperative learning in the classroom began.

Cooperative learning is understood as certain teaching methods where students work in small groups to help them learn together. (Contreras León & Chapetón Castro, 2016; Ferreiro Gravié, 2007; Johnson, Johnson & Holubec, 1999; Slavin & Johnson, 1999).

As Johnson, Johnson & Holubec (1999) explain, this type of learning emerges as an opposite of competitive and individualistic learning where students work against their peers to achieve their own goals and not as a team as in cooperative learning. Students are expected to help each other to achieve group and individual goals. "Their success as a group depends on their ability to make sure they understand the essential ideas correctly" (Slavin 1999, p. 9).

In this regard Ferreiro Gravié (2007) mentions that this learning is also known as "peer learning" (para. 4) as it is part of the principle that the best teacher of a child is another child.

Therefore, some of the advantages of using this type of learning (in addition to academic achievement) are the improvement in interpersonal and inter-group relationships, the improvement in self-esteem, and the acceptance of diversity in school performance levels. It is important to emphasize the acceptance of diversity in an environment, where there are children with learning disabilities, since for them, competitive learning is not a challenge but a torment. In

addition, cooperative learning helps establish and accept intercultural relationships (Slavin,1999).

Thus, the main objective of cooperative learning “is to provide students with the knowledge, concepts, skills and understanding they need to be happy and useful members of our society” (Slavin, 1999, p. 22).

On the other hand, Johnson, Johnson & Holubec (1999), point out that in order for cooperation to really work, five elements are needed:

1. Positive interdependence: All members of the group depend on others to fail or succeed together. A commitment is created to achieve the success of others, in addition to their own.
2. Individual and group responsibility: the group is responsible for achieving the proposed objectives and each member has the responsibility to comply with the corresponding part.
3. Face-to-face stimulating interaction: members of the group should be supported, motivated, helped, and recognized for accomplishments.
4. Interpersonal and team practices: cooperative learning requires group work techniques or practices, necessary to work as a team in addition to learning from school subjects,
5. Group Assessment: The team members analyze the degree to which they are achieving their goals and maintaining satisfactory working relationships. They should also intervene in case this analysis is not the expected one (Johnson, Johnson & Holubec, 1999).

Contreras León & Chapetón Castro (2016) consider cooperative learning is adequate for the acquisition of English as a second language. They affirm this type of learning gives students a great opportunity to acquire social skills while working in groups, improve their oral

communication, and go beyond grammar or linguistic structure. In addition, they say better interpersonal relationships are promoted and adequate work environments are created in the classroom. In a pedagogical intervention carried out by the authors with seventh grade students, they found it is possible to promote interaction between students and the acquisition of language in a social and natural way using cooperative learning; this is, as long as teachers value the context in which they get along.

One of the most important elements of cooperative learning to be considered in the acquisition of English as a second language in immigrant Hispanic adults with low academic level, is the assurance and collaboration that can be perceived in a cooperative environment. These people have already been judged and pointed out many times and, from my point of view, they need to feel supported in the hands of their peers to reach the same goal.

Competency-based education – CBE.

The European Commission (cited in Vargas, 2008) in 1995 mentioned the world today faces three important cultural changes: information, globalization, and scientific and technical civilization. Meanwhile, Bonilla (2010) states that, in view of this new reality, both individuals and organizations must raise individual and collective competencies to cope with these changes. That is, to train and/or educate individuals able to confront and overcome this reality through "competencies".

Since the seventies, competency-based education has been tried to be defined. Spady (1977) for example, defines it as:

Collection of data-based, adaptive, and performance-oriented integrated processes that facilitate, measure, record, and certify, within the context of flexible time parameters, the

well-known, explicitly expressed and agreed learning demonstration that comes to reflect the successful functioning of the roles of life (p. 22).

Spady (1977) mentions that schools in the past used to teach and evaluate in closed classrooms with textbooks and written evaluations and tries to express that competencies are indicators of successful performance in real-role activities.

Nowadays, authors have defined "competence" from educational and work points of views. Mateo (cited in Bonilla, 2010) defines it as "combination of knowledge, capacities, skills, attitudes, and values required for the understanding and transformation of a complex reality, from the whole universe of flavors related to that reality" (p. 92).

Similarly, the Ministry of Public Education in Mexico (2011) defines competence as "the ability to respond to different situations and implies a knowing-how (skills) with knowing (knowledge), as well as the valuation of the consequences of that doing (values and attitudes)" (p. 33).

So, through this competency-based education, we would be dealing with the current cultural changes mentioned earlier.

Competency-based education was applied in Mexico in 2011 with the educational curriculum reform in search of training students with competencies such as problem solving, creativity development, identification of challenges and opportunities in competitive environments, recognition of values, respect for law, construction of agreements and openness to critical thinking (Ministry of Public Education, 2011). This educational reform was oriented to develop competencies and relevant skills, so students could achieve a full and productive life.

In view of this curricular reform, the Ministry of Public Education in Mexico (2011) described essential pedagogical principles for a successful implementation: student-centered

learning and its processes, planning to enhance learning, generate learning environments, working collaboratively to build learning, emphasize skills development and expected learning, usage of educational materials to encourage learning, evaluate to learn, encourage inclusion and diversity, and to incorporate issues of social relevance, among others (SEP, 2011).

Competency based education for adults applied to English as a second language emerged in the 70's, but it was developed in the 80's. Grognet & Crandall (cited in Auerbach, 1986) affirm: "A competency-based curriculum is a performance-based outline of language tasks that lead to a demonstrated mastery of the language associated with specific skills that are necessary for individuals to function proficiently in the society in which they live " (p. 413). This definition is consistent with those mentioned above but applied to language.

In the same way, it is understood that adult education is more effective when considering a language instruction based on meaning rather than grammar or form; it accentuates what students can do with language and not what they know about it. So, competency-based ESL education for adults sees language learning as a means for students to achieve their own individual goals and not as the ultimate goal (Auerbach, 1986).

Auerbach (1986) compiled a number of characteristics of adult ESL education based on competencies. They are transcribed below.

1. A focus on successful functioning in society: The goal is to enable students to become autonomous individuals capable of coping with the demands of the world.
2. A focus on life skills: Rather than teaching language in isolation, [...] teaches language as a function of communication about concrete tasks [...].
3. Task- or performance-centered orientation: [...]. The emphasis is on overt behaviors rather than on knowledge or the ability to talk about language and skills.

4. Modularized instruction: [...]. Objectives are broken into narrowly focused subobjectives so that both teachers and students can get a clear sense of progress.
5. Outcomes which are made explicit a priori: Outcomes are public knowledge, known and agreed upon by both learner and teacher. They are specified in terms of behavioral objectives so that students know exactly what behaviors are expected of them.
6. Continuous and ongoing assessment: Students are pretested to determine what skills they lack and post-tested after instruction in that skill. If they do not achieve the desired level of mastery, they continue to work on the objective [...].
7. Demonstrated mastery of performance objectives: Rather than the traditional paper-and-pencil tests, assessment is based on the ability to demonstrate prespecified behaviors.
8. Individualized, student-centered instruction: In content, level, and pace, objectives are defined in terms of individual needs; prior learning and achievement are taken into account in developing curricula. Instruction is not time based; students' progress at their own rates and concentrate on just those areas in which they lack competence.
(Auerbach, 1986, p. 414).

Task-based learning - TBL.

According to Willis (1996) task-based learning emerged in the early 1980's as a response to the frustration of methodologies limited to grammatical learning used in the acquisition of a second language; and in recent years, this methodology has had a major boom.

M. Rodríguez-Bonces & J. Rodríguez-Bonces (2010) suggest this attention increased thanks to teachers' interest in promoting exchange of meanings rather than grammatical forms. Also, educators believe there is more learning when students are not only focused on grammar.

“Researchers believe there is less anxiety and learning is more effective if the form of language *per se* is not the priority” (p. 166).

Skehan (cited in Huang, 2010) defines task “as an activity in which meaning is primary, there is a problem to solve, there is a relationship to the real- world, and where there is an objective that can be assessed in terms of an outcome” (p. 32).

To this respect, Ellis (2003) lists the following characteristics of a task:

1. A task is a workplan. Constitutes a plan for learner activity. [...].
2. A task involves a primary focus on meaning. A task seeks to engage learners in using language pragmatically rather than displaying language. It seeks to develop L2 proficiency through communicating. [...].
3. A task involves real-world processes of language use. [...].
4. A task can involve any of the four language skills. [...]. (1) listen to or read a text or display their understanding, (2) produce an oral or written text, or (3) employ a combination of receptive and productive skills.
5. A task engages cognitive processes. [...] such as selecting, classifying, ordering, reasoning, and evaluating information in order to carry the task [...].
6. A task has a clearly defined communicative outcome (p. 9).

To achieve the success of the task-based learning, it is necessary for the educator to have the ability to look for tasks with appropriate challenges, so the student feels able to perform them; that is to say, the teacher must prepare tasks according to the level of the student, attractive enough to attract their attention and to achieve the desired learning (Calvert & Sheen, 2015).

Huang (2010) suggests that, to know if an activity is a "task", we should ask the following questions: (a) Does the task have a primary focus on meaning? (b) Does the task relate

to real-life activities? (c) Is there a previous problem to solve? (d) Could it be assessed in terms of results?

In an action-research study conducted by Calvert & Sheen (2015) it was concluded there are benefits for teachers when they understand the needs and limitations of students when addressing the design and implementation of tasks according to these needs. The tasks can be used to incorporate communicative activities useful for the students. In addition, the authors mention that if an activity is not successful, it does not necessarily mean it is ineffective; changes in structure and implementation could be considered.

Willis (1996) shows the following structure of the task-based learning:

1. Pre-task: Introduction to the task topic. It helps to understand the topic and the objectives of the task.
2. Task cycle: Task – Planning – Report. Students do their homework in pairs or small groups, plan and prepare the report, and finally present it.
3. Focus on language: Analysis and Practice. Students analyze and discuss at the same time the teacher conducts the practice of new words.

From my point of view, task-based learning can be very helpful for adults, especially those who intend to acquire English as a second language.

Project-based learning - PBL.

The origins of the Project-Based Learning They date back to the late 1950s with educator and philosopher John Dewey of the University of Chicago. Dewey stated that students would invest time, effort and dedication in the material if they engage in real and meaningful activities; and to solve problems similar to those in real life (Blumenfeld et al., 1991; Krajcik &

Blumenfeld 2006). Even Maria Montessori contributed to the idea of project-based learning (Petersen & Nassaji, 2016). However, this learning began to have a greater boom in the 1990's.

“Project-based learning is a comprehensive perspective focused on teaching by engaging students in investigation” (Blumenfeld et al., 1991, p. 371).

For Blumenfeld et al., (1991) projects require a problem or a question to guide the activities; these activities will result in products which will culminate in a final product which will solve the problem or answer the initial question. Students may be responsible for their own questions, but teachers could also, in advance, consider them in their curriculum. For the authors, it is essential students have the freedom to generate their own products, because through this process they will build their learning. The final product may be exposed and analyzed to allow reflection and correction and/or better learning through review.

Krajcik & Blumenfeld (2006) mention that in the early 1990's science teachers realized students were not motivated to learn and even the brightest students acquired only superficial knowledge. Factors such as instructional method or textbooks were responsible for this lack of motivation; thus project-based science emerged. Here, students engage in real and meaningful problems for them and are similar to what scientists do. In the classroom they are allowed to ask questions, investigate, discuss, and challenge ideas.

After researching project-based science for some years, the authors grouped five characteristics of project-Based learning:

1. Driving questions. Help to organize and direct project activities and provides a context in which students can use and explore learning goals and scientific practices. Questions should be feasible, valuable, contextualized, meaningful, and ethical.

2. Situated Inquiry. By not having a science lab in the classroom, students are asked to, at least, be consistent with science and with driving questions.
3. Collaboration. Project-based learning gives students, teachers, and other members of the society to participate and to be part of the learning community.
4. Using technologies tools. Technology can be used to connect and collaborate with others at a distance. Large amounts of information can also be searched without the need to use printed sources.
5. Creation of artifacts. Final product is something concrete and explicit (Models, reports, videos, etcetera), and should be created from the driving question (Krajcik & Blumenfeld, 2006).

Krajcik & Blumenfeld (2006) believe the initial driving question is the most important characteristic.

The difference between a conventional activity (as in task-based learning) and a project, is that the former is designed for students to learn information from a lesson without the presence of a driving question. According Blumenfeld et al., (1991), An activity may cover part of the curriculum, but without the presence of the research question, it does not promise the same learning. The Project-Based Learning Uses characteristics of the Homework-based Learning And it's more ambitious. In some cases, the project is part of the entire school year; on others, a task can be done on the same day (Petersen & Nassaji, 2016).

A study conducted by Petersen & Nassaji (2016) on the perception of Project-Based Learning Between teachers and students of English as a second language, found that the views between the two groups were a little different. Teachers presented a better attitude towards this type of learning, especially in the areas of reflection, team work, use of varied materials,

development of a final product, and development of a longer project. Students showed a positive attitude toward this type of learning in general, but exhibited some limitation in some areas; for example, teamwork and the extended time of a project. The teachers' group indicated that this type of learning is an effective strategy to learn a language and presentations can be considered as projects. In addition, they indicated that a project will be effective when properly implemented by considering certain characteristics of the students such as their experiences and culture.

The project-based learning may be considered an alternative for this project, if the particular characteristics of the population to which it is directed are considered.

Situated learning

According to Stein (1998) situating learning means taking thought and action to a specific time and place. It is also necessary to involve other apprentices, the environment, and the appropriate activities to create meaning and achieve learning and acquiring skills.

On the other hand, Sagástegui (2004) refers to situated learning as the way of creating meaning to the activities of the daily life.

In the same way, Stein (1998) describes four principles to develop situated learning inside the classroom: (1) learning is established in actions of everyday life; (2) knowledge is acquired in everyday situations and transferred to other similar situations; (3) learning is the result of a social process that includes ways of thinking, perceiving, and solving problems; (4) learning is given in social environments formed by actors, actions, and situations.

In an adult classroom, "to situate learning means to create the conditions in which participants will experience the complexity and ambiguity of learning in the real world" (Stein, 1998, p. 2). To create learning, participants will have to consider certain elements, such as experiences, environment, relationships with other participants and community.

To this respect, Lave & Wenger (cited in Herrerías & Isoard, 2014) mention that situated learning aim to get participants attention towards sociocultural practices of a community. Its elements, according to Stein (1998) are content, context, community, and participation.

In summary, situated learning aims to transfer knowledge to everyday experiences so learning is meaningful within the social context in which the individual gets along. Therefore, this type of learning should be considered for the present proposal of curricular design since the adult immigrant must transfer the acquired knowledge to his daily activities such as work, children's school, health, activities of the host community, among others.

Below is a table with the aforementioned learnings and their characteristics (Table 1):

Table 1.
Synthesis of characteristics of dimensions, approaches, and methodologies

Dimensions, Approaches, and Methodologies	Characteristics
Audio-Lingual Method	<ul style="list-style-type: none"> 4. Flourished in the 40's to develop auditory and oral skills. • Sequence: Listen – Speak – Read – Write • Structural patterns and repetition. • Boring and tedious. • Authors: Abu-Melhim and Yanhua
Paulo Freire's Approach	<ul style="list-style-type: none"> • Pedagogy based on educational and social problems of the 60 's and 70 's in Brazil. • Education for illiterates and social justice awareness. • Liberation, social and political transformation. • Focus on the content of generative topics (relevant topics). • Humanization of the human being. • Author: Graman
BICS & CALP	<ul style="list-style-type: none"> • Developed by Jim Cummins in the late 70 's. • Basic Interpersonal Communicative Skills vs. Cognitive Academic Language Proficiency • Superficial speech and listening skills vs. academic ability. • Acquisition Period: 2 years vs. 5 – 10 years. • Common underlying proficiency: knowledge transfer between L1 and L2 in CALP.
Cooperative Learning	<ul style="list-style-type: none"> • 70 's. • Work in small groups. • Opposed to competitive and individualistic learning. • Team and individual goals. • Improves interpersonal and inter-group relationships and self-esteem. • Acceptance of diversity and intercultural relations. • Interdependence, individual, and team responsibilities, face-to-face interaction, interpersonal and team practices, group evaluation. • Collaborative environment. • Authors: Johnson, Johnson & Holubec, Slavin, Contreras León & Chapetón Castro.
Competency-Based Education	<ul style="list-style-type: none"> • 70 's and 80 's. • Emerged as a result of three major cultural changes: information, globalization, and scientific and technical civilization. • Set of knowledge, skills, capacities, attitudes, and values necessary to understand and transform reality. • Student-centered learning, learning environment, use of educational materials (SEP). • Seeks proficiency of language associated with specific skills for functioning in society. • Meaning-based language instruction. • Authors: Vargas, Spady, Bonilla, Auerbach,
Task-Based Learning	<ul style="list-style-type: none"> • 1980s. • Task = Activity • Exchange of meanings vs. Grammatical forms. • Processes of real-life language. • Target defined. • Engages cognitive processes: Selecting, classifying, sorting, reasoning, etc. • Authors: Willis, Rodríguez-Bonces, Huang, Ellis, Calvert & Sheen
Project-Based Learning	<ul style="list-style-type: none"> • Boom in the 90 's. • Students' commitment to research. • Designed to solve a real problem. • Activities resulting in a final product (model, report, video, etc.) to solve the initial problem. • More ambitious than homework-based learning. • Authors: Blumenfeld et al., Krajcik, Petersen & Nassaji.
Situated Learning	<ul style="list-style-type: none"> • Take thought and action to a specific time and place. • Create meaning to achieve learning and skill acquisition. • Involvement of peers, environment, and appropriate activities. • Transfer of knowledge to everyday experiences. • Troubleshooting. • Learning achieved in social environments formed by actors, actions, and situations.

Many different approaches and dimensions used in education are or have been applied for the acquisition of general knowledge such as science and mathematics; however, also for the acquisition of English as a second language. Most of these approaches have elements that are appropriate for Hispanic adults with low academic and socioeconomic levels and will be considered in this project.

The following chapter will describe the life and work of María Montessori, her story, philosophy, and methodology and will be considered as a new approach for the acquisition of English as a second language in Hispanic adults with low sociocultural and academic levels.

Chapter 3

Considering a New Approach

Maria Montessori

This project aims to consider a Montessori approach as a curriculum design proposal for the acquisition of English as a second language in Hispanic immigrant adults with low academic and socioeconomic levels in the United States of America. Next, the most relevant topics about life and work of Maria Montessori are unfolded to give a broader and more detailed view to the reader. In this particular section I will try to answer: who she was, where she was born and where she grew up, what happened in her life, what was her educational formation, and who influenced her pedagogical ideas. The information presented here is mostly extracted from the book "Maria Montessori. A biography" of Rita Kramer originally published in 1976 and re-edited in 2017 as an e-book by Diversion books. Other sources were explored and considered and are properly cited.

Historical framework.

Kramer (1976/2017) shows a historical, political and social framework, determinant for the pre-and post-birth time of Maria Montessori in Italy.

In the early nineteenth century, Italy had been dominated by the French and by the year of 1848 the Austrians took over the country. Italy was formed by reigns and there was a lot of poverty and ignorance, especially in the southern agrarian area. They had no civil rights or freedom of the press and, in addition, their educational system was a century behind their time and only a small part of the country's population was able to attend.

In the face of this situation, during the 30 's and 40 's "The Risorgimento" flourishes, a liberal social movement, under the ideas of Mazzini and Garibaldi's armed forces. By 1860, the king of Cerdeña, Victor Emmanuel, expelled the Austrians and united the country in 1870 by

annexing the last Papal States. Thus, in 1870 Italy became a united nation. Intellectuals and businessmen wanted to turn Italy into a modern world, but they had many obstacles due to foreign interests and the power of the Catholic Church. Unification had achieved a change in the political format, but not in the social one. The citizens were divided into the wealthy and educated class, who enjoyed power and privileges, and the working class who continued to suffer from great shortcomings. By 1860, three-quarters of the population above 10 years could not read or write. Illiteracy was higher in the south of the country as children had to work in the countryside to be able to eat. Textiles factories could, legally, employ 9-year-olds and their parents decided to send them because eating was more urgent than learning to read.

By mid-1870 the government passed some reforms such as voter rights and the development of public education. The Prime Minister of the time, Cavour, began to build schools that would be under the control of the state, while the church continued to maintain its own private educational system.

In 1877 a new public education system was legally effective; but demanding or imposing education was difficult. This educational system consisted of four years of primary education from 6 to 10 years of age. The secondary preparation lasted 5 years and high school three. There was also the alternative of seven years (post-primary) of technical education or scientific education. In addition, girls were able to go to public schools; however, they were assisted mainly by boys, while girls continued to attend private Catholic schools.

In spite of great hopes, by the end of the nineteenth century, the problems persisted. The vast majority of the population remained indigent and illiterate. Adults workers worked at least 12 hours a day and child labor remained common (Kramer, 1976/2017).

Biography.

According to the investigation of Kramer (1976/2017), Maria Montessori was born in a town called Chiaravalle, Province of Ancona on August 31, 1870, the same year Italy was unified and became a nation.

Alessandro Montessori, Maria's father, was a disciplined man of conservative character as he had been a soldier in his youth and had worked for the government. Her mother, Renilde Stoppani, belonged to a landed family and was a well-educated woman for her time. After several changes of residence due to Alessandro's job, in 1875, the family moved to Rome where they settled. Maria was 5 years old and had the daily task of knitting for the poor and cleaned the floor when needed. These experiences "which sounds strikingly like what later came to be known as exercises of practical life in the Montessori school" (p. 1-14). In addition, Maria mediated as a promoter of peace between her parents when they had differences of opinion. Whenever they argued, she took their hands and put them together to reconcile the family (Kramer, 1976/2017; Povell, 2007).

"Renilde Stoppani Montessori appears to have seen her daughter as the means to break the mold and did not hesitate to encourage her to follow her desires -even if it meant going against traditional roles for women" (Povell, 2007, p. 22).

Renilde was Antonio Stoppani's niece, a distinguished priest, professor of geology, recognized naturalist, and liberal religious who defended the separation between the state and the church. Antonio Stoppani was a poet and author of countless scientific works. Maria Montessori received great influence from both his mother and uncle.

At the age of six, Maria was enrolled in first grade in Via di San Nicolo da Tolentino public school and, although the education received in the capital was better than in the province, the education system in general was deficient (Kramer, 1976/2017).

During Maria's childhood, primary education in the province was taught by teachers and administrators not properly trained to make educational decisions or to impart quality classes; “their ignorance was matched only by their prejudice” (p.1- 17). Schools were very dirty and crowded; children were taught to read and write, some arithmetic, and natural sciences in a period of three years. In the schools of Rome, education continued after three years and students learned some history, geography and geometry; however, schools were not good enough, they did not have enough books or teaching material (Kramer 1976/2017).

Since childhood, Maria showed great interest for the children of the future. Anna Maccheroni, her pupil, recounted that, when Maria was 10 years old and was seriously ill, told her mother: “Don’t worry, Mother, I cannot die; I have much to do” (p. 1-21). Maria seemed to be confident and with great will. She read books and asked a lot of questions. She liked mathematics very much, and at the age of twelve she attended the technical school to follow her studies. She had become a competitive, optimistic, persistent and challenging teenager. She aimed to go beyond her own limits and to the cultural and social boundaries towards women that dominated at the time (Kramer, 1976/2017).

At thirteen, Maria began her studies at the Royal Scuola Tecnica Michelangelo Buonarroti. The secondary and higher education system was controlled by the government and it was the minister who determined what would be taught, he controlled the teachers and designed the exams to strictly evaluate the students. Their results controlled their academic progress and

future. Years later, when Maria became interested in education, she had it clear this type of educational model was not the right one (Kramer 1976/2017).

During those years, self-learning was not encouraged, school environment was punishment and tension, students could not move from their places, they worked at the same time on the same topics with the sole objective of approving the exams. Years later, the experience she lived under this educational system was used to design her own with drastic changes (Kramer 1976/2017).

In 1890 María was able to enroll in the School of Medicine of the University of Rome where Marxist ideas prevailed. She was involved in an environment of social reform (Kramer 1976/2017). Evaluations in the faculty were oral and did not require comprehension on the subject; rather, they required memorization of the texts provided by the teachers. However, María Montessori stood out not because she was a woman, nor for memorizing texts, but because of her desire to learn. She showed initiative and interest towards topics and the quality of her work was always outstanding. However, her passing through the university was not easy as she could not enter the classroom until all her male classmates had entered before and could not work with corpses along with them, so she had to go hours later by herself. Eventually, she gained the respect of his classmates. For her dedication, skills, effort, and perseverance, in 1894 Maria won the Rolli prize scholarship and could afford the rest of his studies. (Kramer 1976/2017).

In 1895, she won the assistant position in a hospital and gave her the opportunity to acquire clinical experience one year before graduation. She served as assistant in the women's S. Salvatore al Laterano hospital and in men's Ospedale Santo Spirito hospital; In addition, she

studied pediatrics at the children's Hospital. She also attended the Royal Psychiatric Clinic to study the material of his thesis (Kramer 1976/2017).

In July 1896 she graduated with honors after presenting her thesis and obtaining a score of 105 (above 100 was considered brilliant). According to Kramer (1976/2017) Maria was the first woman in Italy to graduate from medicine.

To this respect, Povell (2007), mentions that most of Maria Montessori's biographies consider her as the first woman to graduate from medicine in Italy or as the first woman to graduate from medicine at the University of Rome. However, in 1877, Ernestine Paper from Florence became the first medical woman in Italy, followed by three more women (Lovejoy, cited in Povell, 2007). It should be mentioned two other women graduated from medicine the same year that Maria Montessori did (Povell, 2007). Likewise, Foschi (2012) also denies this well-known assertion.

The following year, in 1897, Maria begins as a volunteer assistant at the psychiatric Clinic of the University of Rome to continue her research. She was responsible for visiting asylums for the insane and was able to observe children with mental disabilities placed along with adults. Maria began to have a greater interest in children's mental illnesses. Witnessing how children would throw themselves to the ground to catch crumbs of bread, she realized that “children were starved not for food but for experience. There was nothing in their environment to touch, feel, exercise their hand or eyes on. They had nothing to play with, nothing to do” (Kramer, 1976/2017, p. 3-17). It seemed they wanted to convey their minds were not completely useless, but they were not being used. If given stimulus, they responded. During this period, Maria developed one of her great research tools: observation (Kramer, 1976/2017).

Maria's curiosity led her to investigate these children and discovered the writings of Jean-Marc-Gaspard Itard and Edouard Seguin. It was until this time that Mary was openly interested in education. During the years 1897 and 1898 she studied pedagogy in the university and read everything available in theories of the education of Pestalozzi, Robert Owen, Froebel, Rosseau and Jacob Rodríguez Pereira. What she found gave a new twist to her thought and would determine the future course of her work (Kramer, 1976/2017). She, gradually, developed her own theory. Pedagogical background will be briefly explained later.

Convinced of the need for a special education for children with mental or emotional impairment, she continued her research at the Psychiatric Clinic in Rome working with her colleague Giuseppe Montesano. The relationship between them was professional, but eventually became romantic. The effect he had on her personal life was very important; they both procreated an illegitimate son, Mario, whom Maria had to give up for much of her life due to the social pressure of the time (Kramer 1976/2017).

At thirty years old, in 1900, Maria Montessori was appointed director of the Medical-Pedagogical Institute in Rome to train teachers to work with disabled children. "Everything she had done in her work up to now -in medicine, pediatrics, psychiatry, anthropology, education- had directed her attention to special educational methods in an environment designed to meet the needs of abnormal children" (Kramer 1976/2017, p. 4-16). Teachers were being trained in sensory-stimulation learning and in the use of special teaching materials for the first two grades of elementary school; they also received general psychology, physiology, anatomy, and psychology courses for the deficient child. Teachers were also being trained (in supervised practices) to carry out anthropological studies of children, making records and detailed observations of their individual characteristics and behaviors. Government officials, including

the Minister of Public Education, visited the institute and were surprised by the results they had achieved with these children in such a short time (Kramer 1976/2017). For two years she was working in the Institute and visited other institutions in Paris and London where she worked with troubled children.

In 1901, Maria resigned from the Institute and Medical Practice and enrolled in the Faculty of Philosophy of the University of Rome to devote herself to the study of anthropology, experimental psychology, and educational philosophy in order to discover why the schools were failing. She observed elementary schools of children without deficiencies, their methods and the procedures they followed. (Montessori, 1957; Kramer 1976/2017).

When Maria begins to observe traditional schools, she was surprised by the conditions in which children ‘learn’ at school: “the physical immobility, the enforced silence, the use of rewards and punishments all seemed to her as degrading, as destructive of the child’s natural abilities” (Kramer, 1976/2017, p. 5-14).

In January 1907 the first school ‘Casa dei Bambini’ (Children's House) was opened as a special requisition to Dr. Montessori by the Real Estate Society of the ‘Bene Stabili’ Roman Institute. This society had renovated a large housing building for low-income families, but they did not know what to do with children whose, with their mischief and vandalism, did not allow the building to remain in good condition (Montessori, 1957; Kramer, 1976/2017).

That same year the second 'Casa dei bambini' was opened in San Lorenzo, another one opened in Milan in 1908, and in 1911 the Montessori system was officially adopted in Switzerland and Italy. In the spring of 1912, The Bells started a Montessori school in Washington, D.C., in 1914 the Montessori method was applied in the Maternity House of Barcelona and, in the following years, the idea transcended to countries like England, India,

China, Mexico, Korea, Japan, Syria, Australia, New Zealand, Argentina and Hawaii. She was personally visiting and giving lectures and courses in many of these countries, and others. (Montessori, 1957; Kramer 1976/2017).

In 1914 World War I broke out and many of her projects were suspended until the end of the war, but over the years, her trainings were extended beyond the didactic material and she was, increasingly, emphasizing the mission of man on earth and peace education. However, at the age of 69, in 1939, with the beginning of the World War II, she exiled to India and did not return to Europe in seven years. During this time, she discovered a great affinity for Hindu philosophy and the liberation of the spirit of the child (Kramer 1976/2017).

Maria continued to visit countries, giving lectures, courses, and meeting with world leaders throughout her life. She died in Holland on May 6, 1952, at almost 82, (Kramer 1976/2017).

Pedagogical background.

Jean-Marc-Gaspard Itard.

Jean-Marc-Gaspard Itard was a French doctor for the deaf. He was born in 1775 and died in 1838 (Weinberg, 2009). In 1800, a wild child was found in the forest and was taken to the institution where Itard worked. Scientists saw him more like an animal than a child because he could not do anything, and it was impossible to communicate with him. After several attempts and failures, he was abandoned in the institution because of the inability to educate him. Itard did not agree with the final diagnosis and argued that his condition had nothing to do with hereditary factors, but with lack of training. He tried stimuli through the senses as a new method and hoping to teach him at some point the use of language, but the achievements were very limited. He did

not know if the kid had congenital defects but concluded that the lack of stimulation in the early stages of development had an effect that could not be reversed (Kramer 1976/2017).

Edouard Seguin.

Edouard Seguin was born in 1812 and died in 1880 (Weinberg, 2009). A French doctor, he studied medicine under the direction of Jean-Marc-Gaspard Itard. He was very interested in understanding the minds of deficient children and succeeded in one of his experiments by being able to teach through the senses, to speak, write, and count to a mentally impaired child. He founded a school for deficient children and, in 1846, he published the book 'The moral treatment, hygiene, and education of idiots', drawing the attention of educators and psychiatrists around the world. He emphasized each person's aptitude as an individual: "Respect for individuality, is the first test of a teacher" (Idiocy and its treatment by the physiological method, cited in Kramer 1976/2017, p. 3-23). He affirmed education should be divided into sequential stages, from physical movement to intellectual. Seguin sought to stimulate the perception of the senses and the motor movements of the deficient child by using simple gymnastic devices of daily life. Maria, then, concludes that the children she had observed had mainly a pedagogical problem rather than a medical one (Kramer, 1976/2017).

Johann Heinrich Pestalozzi.

Johann Heinrich Pestalozzi was born in Switzerland in 1746 and died in 1827. He recognized the importance of school-home relationship to help the child succeed. His writings emphasize the importance of the role of the mother in the life and development of the child (Bowers & Gehring, 2004).

...a human child needs sustained help and care, and these are given him from the hour of his birth by his mother with complete unselfishness. It is this moral attitude that turns her

female animal instinct into a human mother's love. Pestalozzi calls this loving care her fidelity. (Silber, cited in Bowers & Gehring, 2004, p. 307).

Pestalozzi cared about the poor, especially the socially and culturally disadvantaged children. His educational philosophy emphasized the practical training and socialization of the child (Kramer 1976/2017). He was strongly influenced by Rousseau and as an adult “fought for the abolition of social privileges, equality of all citizens, freedom of trade and tax reform. (Bowers & Gehring, 2004, p. 308). He, faithfully, believed that the majority of the poor could improve their situation through education. His educational principle was based on training the senses, as he believed all thought began with detailed observation of concrete objects. He believed in a freer school (Kramer, 1976/2017).

Jean Jacques Rousseau.

Jean Jacques Rousseau was a philosopher and writer born in Switzerland in 1712. He died in France in 1778. He believed nature was a teacher capable of giving life and providing us with the tools to survive and claimed that this truth was better assimilated by children than by adults (Peckover, 2012).

On the other hand, Kramer (1976/2017) mentions that, “for Rousseau, sense experience was the basis of all knowledge” (p. 3-27). In his book ‘Émile’, Rousseau develops the idea of natural education beginning with the senses.

In this outset of life, while memory and imagination are still inactive, the child pays attention only to what actually affects his senses. The first materials of his knowledge are his sensations. [...] But as he attends to his sensations only, it will at first suffice to show him very clearly the connection between these sensations, and the objects which give rise to them. He is eager to touch every thing, to handle everything. Do not thwart this restless

desire; it suggests to him a very necessary apprenticeship. It is thus he learns to feel the heat and coldness, hardness and softness, heaviness and lightness of bodies; to judge of their size, their shape, and all their sensible qualities, by looking, by touching, by listening; above all, by comparing the results of sight with those of touch, estimating with the eye the sensation a thing produces upon the fingers. (Rousseau, 1889, p.26).

This idea of starting to educate from the concrete instead of the abstract would later become the basis of the Montessori system. In addition, he wanted to use nature to perfect the school and make it a place that would satisfy the real needs of children (Kramer 1976/2017).

Montessori Philosophy

Maria Montessori developed her educational philosophy based on the ideas and studies of the philosophers, physicians, pedagogues, and entrepreneurs mentioned above and in her own observation, both to children with disabilities and without. She agreed the child has innate power and that he finds his potential within the right environment.

Maria concludes that the child has “something more valuable than gold, the very soul of man” (Montessori, 1949/2012, p. 3-10). She claims the child, before birth, has a psychic power that helps him to be his own teacher and to self-learn, through his environment (Montessori, 1949/2017, Polk Lillard, 1979).

Polk Lillard (1979) mentions, Dr. Montessori calls this psychic entity "spiritual embryo" (p. 56) formed at the same time the human embryo is fertilized. However, at the time of birth, the physical body can be seen while its spiritual being, cannot. The latter will be revealed through a natural process of development under these two conditions: relationship with the environment and freedom.

The child has an intrinsic motivation towards his self-construction and his emotional health will depend on discovering himself: “He spontaneously seeks to achieve this goal through an understanding of his environment” (Polk Lillard, 1979, p. 57), but since there are no predetermined structures to understand it, Maria Montessori identified two internal aids that will support him in his development: sensitive periods and absorbent mind.

The latter allows the unconscious absorption of the environment surrounding the child: “The child has a kind of mind that absorbs knowledge and instructs himself” (Montessori 1949/2017, p. 3-10). In her book, 'The Absorbent Mind', Maria mentions how a child at two years of age has a complex knowledge of the native language without being properly taught; the boy only absorbed the language of his surroundings, of his environment.

The sensitive periods are spaces of time where the child is more sensitized to acquire some knowledge, skill, or experience and where a special characteristic of the environment draws his attention. Maria Montessori recognized five sensitive periods in the child's life:

1. Order: the need for a harmonious and determined environment. The child shows joy in a tidy environment and makes tantrums when he is not in one.
2. Tongue and hands: The child explores the world through taste and touch. This sensory and motor activity will help to develop language.
3. Walking: When the child is ready, he will start walking. “There is no educational system that teaches a child to walk ahead of time; here is nature itself which commands, and must be obeyed” (Montessori, 1946/1997, p. 49). Once the child is walking, he will want to walk a lot with the sole purpose of practicing his new skill.
4. Tiny objects: The child has special interest in objects, animals, or anything small and detailed.

5. Social aspects: It is revealed as a new interest to know and treat others well. He starts living in Community (Polk Lillard, 1979).

In the words of Maria Montessori "...The sensitive period is summoned of new light. Thanks to it [...] we consider the origin of education on a natural plane" (Montessori, 1957, p. 58).

The philosophical basis in which Maria Montessori develops her pedagogy, as mentioned above, is the recognition of a psychic force the human being possesses and that will have to develop by means of several principles that will be mentioned below.

Philosophical principles.

Natural laws and maximum effort principle.

In the first one, Maria saw that the children were satisfied and calmed after a period of intense concentration in a task they had decided to work freely. In the second, the child needs to continue conquering new skills or knowledge (Polk Lillard, 1979). "They seem tireless, and even the constant intellectual activity keeps them healthier and more vigorous. They are naturally predisposed to be cultivated, but society abandons them, mentally, in their stage of greater sensibility" (Montessori, 1946/1997, p. 19).

Independence principle.

"...the child presents tendencies which are very clearly and very strongly set towards Independence" (Montessori, 1949/2012, p. 8-1). Personality formation will depend on the confidence of choosing and dedicating to a certain task independently. "Independence is a natural gift and it leads to freedom" (Montessori, 1946/1997, p. 48).

Power of attention principle.

When the child shows particular interest in an object of his environment that he had not shown before, he will be able to focus his attention on an intellectual interest (not impulsive) and his self-learning is even greater. “To learn it is necessary to possess, in a perfect way, a deep interest, a lively and sustained attention, and later use this inner strength for the child's culture” (Montessori, 1957, p. 33).

Will principle.

The child develops his will when he chooses a task and ignores distractions or external impulses. Dr. Montessori observed repetition, self-discipline, and obedience as stages in developing the will. The latter does not refer to a blind obedience to the teacher, but to a natural characteristic of the human being; a controlled and intelligent obedience in cooperation with the forces of nature (Polk Lillard, 1979).

Development of intelligence principle.

The child perceives, through the senses, the environment and becomes aware of the differences in it. When he receives these perceptions and manages to neatly organize them in his mind, he begins to develop intelligence (Polk Lillard, 1979).

Development of the imagination and creativity principle.

Once the child has managed to organize in his mind, in an orderly manner, what he perceives around him, he will be able to choose dominant characteristics, associate images, and emphasize conscious creative processes. The child needs the freedom to develop creativity, to discover solutions and ideas of his own (Polk Lillard, 1979).

Development of the emotional and spiritual life principle.

Maria Montessori believed the human being possesses, before birth, everything necessary to develop a capacity to love his fellow men and God. The adult should help a child to develop this emotional and spiritual life, without being dominated. To this, the child will be able to respond with love and respect. Initially, he will show love for his mother, and later, he will begin showing interest towards his peers' wellbeing (Polk Lillard, 1979).

Stages of child's growth principle.

The stages in which the Montessori philosophy is based correspond to the chronological age of the human being. First stage goes from birth to three years of age identified by unconscious absorption. In the period between three and six, the child carries the conscious knowledge in a gradual way. Between six and nine, the child is able to build academic and artistic capacities. From nine to twelve, the child is ready to the knowledge of the universe. And, finally, the fifth period from twelve to eighteen, is the time where areas of particular interest are explored (Polk Lillard, 1979).

Freedom principle.

Polk Lillard (1979) does not mention 'freedom' as principle, but Maria Montessori believed it was of great importance to establish her philosophy. In her book 'The Montessori Method' (1912) she makes great emphasis on individual freedom, of movement, and of selection. She vehemently criticized the rigidity of the traditional school and referred to the children of those schools "...like butterflies mounted on pins, are fastened each to his place, the desk, spreading the useless wings of barren and meaningless knowledge which they have acquired" and adds: "The school must permit the free, natural manifestations of the child if in the school scientific pedagogy is to be born" (Montessori, 1912, p. 82).

Moreover, this ‘freedom’ connects the base for moral development of the child, of his character and, in general, of the human being. For Maria, physical slavery unleashes a slavery of the soul that keeps humanity stagnant and submissive:

The moral degradation of the slave is, above all things, the weight that opposes the progress of humanity – humanity striving to rise and held back by this great burden. The cry of redemption speaks far more clearly for the souls of men than for their bodies.

(Montessori 1912, p. 90).

Likewise, Maria Montessori (1912) criticizes prizes and punishments which condition behavior and learning and classifies them as unnatural incentives or forced effort. “Such prizes and punishments are [...] the instrument of slavery for the Spirit” (p. 91).

Maria Montessori realized that one of the biggest problems in the child's education was the adult not considering him as a real and intelligent human being (Buckenmeyer, 2009). In Maria’s words:

It is my belief that the thing which we should cultivate in our teachers is more the spirit than the mechanical skill of the scientist; that is, the direction of the preparation should be toward the spirit rather than toward the mechanism (Montessori, 1912, p. 74).

Another important part to mention of the Montessori philosophy, is “the adapted environment, the humble teacher, and the scientific material” (Montessori, 1957, p. 81), because, “the primary task of education is to generate an environment that helps the child and allows him to develop the functions that nature gave him. It is not a matter of pleasing the child's wishes, it is about cooperating with a natural mandate” (Montessori, 1946/1997, p, 49). These aspects will be explained later in the methodology section.

It is clear that Maria Montessori’s philosophy is focused on accepting and understanding that the child, as a human being, has an internal psychic force which, at first sight, is not appreciated, but when giving him the opportunity to develop it, he will manifest in a natural way.

In the Montessori approach the parameters established by the traditional school are broken: Memorization, prizes and punishments, exams, submission, immobilization, among others. On the contrary, for Dr. Montessori, education must be holistic, student-centered, from concrete to abstract, prepared environment, practical life, self-learning, movement, free choice, internal reward, order, independence, and critical thought that will make humanity flourish in the individual.

Given the above, and to close this section, I will transcribe a definition of education according to Maria Montessori which I find very interesting:

Education should no longer be mostly imparting of knowledge, but must take a new path, seeking the release of human potentialities [...]. Scientific observation then has established that education is not what teacher gives; education is a natural process spontaneously carried out by the human individual and is acquired not by listening to words but by experiences upon the environment (Montessori, cited in Polk Lillard, 1979, p. 76).

Cosmic and peace education.

The word *cosmos*, today, is related to the universe or would be understood as something very big, but actually comes from the Greek root *kosmos* which means order (Stephenson, 2015).

Jim and Sonnie McFarland (2011) define "cosmos" as "the universe as an orderly system" (p. 37) and Maria Montessori recognized this order. She was a scientist dedicated to children's education, but believed in the interconnection between the physical universe and the spiritual person connected with the source of divine creation. She saw and believed that all things in universe exist individually, but they cannot exist alone or separate from the 'whole'. Dr.

Montessori, at the end of her life, in her book 'To Educate the Human Potential' developed a learning plan based on cosmic education for children between the ages of 6 and 12:

If the idea of the universe be presented to the child in the right way, it will do more for him than just arouse his interest, for it will create in him admiration and wonder, a feeling loftier than any interest and more satisfying. The child's mind then will no longer wander, but becomes fixed and can work. The knowledge he then acquires is organized and systematic; his intelligence becomes whole and complete because of the vision of the whole that has been presented to him, and his interest spreads to all, for all are linked and have their place in the universe on which his mind is centered (Montessori, 1948/2014, p. 7).

Duffy & Duffy (2002) explain that Maria Montessori spent most of her life developing and defining her philosophy and methodology for young children; however, in 1940, many of the Montessori schools had been closed in countries sympathizing with fascism and Nazism and it was during her exile in India that she embarked on the task of working for a future in peace, especially in those times of war. It is, thus, understood that the development of cosmic education was strongly influenced by her experiences in that country.

There is nothing in this world which does not form part of a universal economy; and if we have spiritual richness, aesthetic greatness, it is not for ourselves, it is part of the spiritual, universal economy and must be used for the universe (Montessori, 1949/2012, p. 13-4).

The goal of cosmic education is to guide the child to ask the following questions: "What am I? What is the task of man in this wonderful universe? Do we merely live here for ourselves, or is there something more for us to do? Why do we struggle and fight? What is good and evil? Where will it all end? (Montessori, 1948/2014, p. 8).

An important part of the cosmic education within the Montessori curriculum are the great lessons. There are five great stories covering a large part of the subjects of study. These are: Coming of the Universe and Earth, The Story of Life, The Story of Human Beings, The Story of Writing, and The Story of Numbers (Duffy & Duffy, 2002).

These great lessons are presented in a global and impressionistic way, with concrete materials and/or experiments in the Montessori environments of the elementary school. “Children gradually develop an understanding and gratitude for the universe and their part within it” (Stephenson, 2015. p. 157). So, every time children listen to them and "live" them, they discover something new.

Duffy & Duffy (2002) affirm that it was not Maria who developed the concept of 'cosmic fables' but Mario, her son, four years after his mother's death.

Montessori Method

To avoid confusion with the concept of philosophy and methodology, I find it prudent to clarify that the first is the essence of educational thinking, while the second refers to the educational process and the elements necessary to carry it out.

According to Polk Lillard (1979) there are two basic components of the Montessori method: The environment, which includes the teaching materials and exercises, and the teachers who are in charge of preparing and maintaining the environment. For the structure of this work, I will start from what Maria Montessori mentioned in her book ‘*Ideas Generales sobre mi Método*’ (Basic ideas of Montessori’s Educational Theory: extracts from Maria Montessori’s writings and teachings) on the importance of the following elements in her method: “the adapted environment, the humble teacher, and the scientific material” (Montessori, 1957, p. 81). That is,

the scientific material will be described separated of the adapted environment, but always considering them as interrelated.

Adapted environment.

About the adapted environment, Polk Lillard (1979) mentions six basic components in the Montessori classroom which relate to the concepts of: “freedom, structure and order, reality and nature, beauty and atmosphere, the Montessori materials, and the development of community life” (p. 80).

Starting from the principle that the human being absorbs the knowledge surrounding him, Maria Montessori develops the idea of a prepared environment with didactic materials as well as materials and activities reflecting practical life. “We must prepare an environment where adult surveillance and her teachings are reduced to the minimum possible: the more the action of the adult is reduced, the more perfect the environment will be” (Montessori, 1957, p. 23). Dr. Montessori’s first task was to adapt the furniture to the size of the child and to eradicate desks which limited their freedom of movement and expression. Instead, she placed small tables, chairs, rugs, towels, crockery, light enough for the children to carry, clean, wash etcetera. Then, her task was to place educational or scientific materials for children to manipulate and to, repeatably, practice with real order and concentration. She discovered that expensive toys did not draw the attention of children who preferred the first and were eliminated from the environments. On the contrary, the children felt happy surrounded by fragile objects of practical life that they could not only touch, but use:

There are so many small and simple objects available – with which they can do serious work, to set the table, to serve the food, and to wash the dishes and the white linen-, children are in a happy life center [...] they learn to move without throwing things, to

carry objects without breaking them, to eat without getting dirty, to wash their hands without wetting the dress (Montessori, 1957, p. 46).

But the prepared environment is not limited to scientific materials or practical life, it is also prepared for intellectual development. “Each child makes his or her own choice and exercises with a scientific material that leads, step by step, to mental development” (Montessori, 1957, p. 48).

Humble teacher.

“One cannot transform an ordinary teacher into a Montessori teacher; one must create a new one” (Montessori, 1949/2012, p. 27-2).

Montessori (1957) affirms a teacher should be prepared to follow the philosophy as it should help, support, or guide the child towards acquiring the culture in a natural way and to improve it, but she can also destroy it all. She must forget her past beliefs and believe in the inner strength moving the child’s soul; otherwise, “if she is not summoned herself up with humility she will not be able to succeed” (p. 34). She has the mission to observe and to know her students, to prepare the environment, to guide them in the scientific materials and in the activities of the practical life, but she also must analyze and identify what harms the child, “she must have a formation, especially a moral one” (p. 34).

The freedom of the pupil should not mean total inactivity of the teacher, but it is ideal if the child has reached the independence of working and concentration without the presence of an adult. The teacher must have faith that the child, his spiritual being, will reveal himself through work. Dr. Montessori reveals three stages in the spiritual evolution of the Montessori guide:

First stage: “The teacher becomes the guardian and custodian of the environment [...]. She tries to make it a peaceful, comfortable house, full of interesting stimuli” (Montessori, 1949/2012, p.

27-5). Everything in the environment must be clean, in order. The material should always be like new, shiny, clean. The appearance of the teacher is also important: clean, happy, dignified, fragrant; that is to say, show self-confidence and be attractive to the child. She should try to move gracefully and make subtle gestures. “The most living part of the environment is the teacher” (p. 27-4).

Second stage: after taking care of the environment, she must care for the child. The teacher must ‘seduce’ the child (in a pure sense) to attract what she suggests. At this stage, the teacher must marvel them by speaking eloquently, telling stories, singing; in short, using what is necessary to guide them before a practical life exercise or before an exercise with scientific material (Montessori, 1949/2012).

Third stage: This is the stage when the child is interested in something. When this happens, the teacher should not interrupt, since this activity follows a natural order and has a cycle, and if interrupted, the moment breaks. The teacher should be very careful not to interfere with the concentration of the child, not even to say something positive.

The great principle which leads to the success of the teacher is this: as soon as concentration appears, pay no attention, as if the child did not exist. We can note what he does in a single glance, without paying any attention that makes him aware of us (Montessori, 1949/2012, p. 27-13).

The task of the Montessori guide is not to do everything for the children but to let them do it by themselves, so they can achieve their physical, spiritual, and moral development; and thus, their independence. “Independence of will by choosing alone and freely, Independence of thought by working alone and uninterrupted” (Montessori, 1949/2012, p. 27-16). The child must act and think for himself.

The teacher should allow herself to be taught, to be guided. It is necessary to have an inner preparation if a person wants to educate. The state of mind is also very important in the teacher; anger and pride will do nothing to understand the child (Montessori, 1912/1957).

This task is more difficult than it seems, the guide must be a servant of the spirit. She manifests a deep love because she knows the children's secret, their inner strength, their spirit, their soul. "The preparation that our method requires of the teacher is self-examination, the renunciation of tyranny. She must banish from her heart the old crust of anger and pride [...] be coated with charity" (Montessori, 1912/1957, p. 77).

Scientific material.

In this section I will not describe the materials developed by Dr. Montessori, but I shall mention the principles involved in the design, development, and use of the Montessori materials described by Polk Lillard (1979). In addition, the following sub-themes will be examined: control of error, the fundamental lesson, and the three-period lesson.

Polk Lillard (1979) describes the following principles necessary for the design, development and use of Montessori materials:

First principle: Difficulty or error to discover and understand must be isolated in one piece of the material. Being isolated allows to identify it more easily.

Second principle: The design of the materials progress from simple to complex.

Third principle: The design of the materials prepares the child for a future indirect learning Indirectly.

Fourth principle. The materials are designed to gradually go from the concrete to the abstract.

Control of error.

We all make mistakes. Students and teachers, but certainly many times we do not notice them. It is necessary to admit that we all make mistakes and accepting it is a big step towards progress. “We must look carefully at error, because perfection will come by correcting it” (Montessori, 1949/2012, p.25-6).

The design of the Montessori materials includes an error control with the purpose of generating self-learning in the student. In this way, the error falls on the same material and not on the teacher (Polk Lillard, 1979). Maria Montessori warns that having knowledge of the error becomes essential to correct or control it.

“The control of error becomes the guide which tell us whether we are proceeding on the right path or not” (Montessori, 1949/2012, p. 25-13). Both control of error and instructions should be provided when working. I'll mention a very basic example of a Montessori material used in children's house: ‘The Pink Tower’. This material is made up of ten cubes of different dimensions so that when placed vertical, they form a tower. The instruction or presentation (this point will be explained later) is given by presenting the cubes from left to right and showing to the child how the cubes become smaller. Then it shows that the difference between each cube is the size of the smaller cube. The child will be able to work with the material and repeat as many times as necessary, but if he makes a mistake arranging the cubes, the material itself will let him know.

Polk Lillard (1979) mentions that not all materials have the control of error designed in such a mechanical way (as in the Pink Tower) because, in later stages, the control of error is introduced with models to help compare the work.

With daily practice of the activities, the student acquires power when controlling his mistakes and will make him feel confident. Feeling confident does not mean perfection, but allows to realize the possibilities and seek to fulfill the activity (Montessori, 1949/2012).

Fundamental lesson.

The instruction or introduction to the material is known as the fundamental lesson. Its purpose is to present to the student the keys and possibilities of the new material; but it also allows the teacher to know how the child's internal development goes. In this way, she should pay special attention to observe the child's reactions and explore new ways to approach him. The moment in which the lesson is presented depends, precisely, on the child's development. Therefore, the teacher should have experience and be sensitive to choose this moment. (Polk Lillard, 1979).

Montessori (1912), describes three essential characteristics the fundamental lesson must have: brevity, simplicity, and objectivity.

Dante (cited in Montessori, 1912) advises teachers the following: "Let thy words be counted" (p. 6-3) and María Montessori uses this phrase to describe the brevity in the presentation. When you talk too much but say little, the student loses consciousness and attention, so Dr. Montessori recommends using only the necessary words. Thus, it is the teacher's responsibility to choose, consciously, the phrases that will be used.

A presentation must also be as simple as possible; this means, staying on target as much as possible. This feature is closely related to the first one, because of the words or phrases that have been consciously chosen, should also be simple (Montessori, 1912).

The last characteristic is objectivity: “The lesson must be presented in such way that the personality of the teacher shall disappear. There shall remain in evidence only the object to which she wishes to call the attention of the child” (Montessori, 1912, p. 6-5).

Once the introduction to the material is given, the teacher should carefully observe her student to see if the child is interested in the presentation and, therefore, in the material. If it is the first time, the teacher should let the child freely repeat the exercises on the material as many times as necessary, being careful not to disturb him; on the other hand, if the child is not interested after a brief, simple and objective introduction, the teacher should not insist on repeating the lesson and will not make the child feel that he has made a mistake. (Montessori, 1912; Montessori, 1949/2012).

Therefore, when the phenomenon of repetition occurs, the teacher will know that the child's internal needs are being developed in a natural way:

The child will begin to create new ways in which to use the material, often combining several different exercises that are interrelated or comparing the material to related objects in his environment. It is the child's inner development, combined with the creative possibilities hidden within the design of the materials, that makes this burst of creative activity possible (Polk Lillard, 1979, p. 97).

Three-period lesson.

To associate perceptions with language led Maria Montessori (1912) to test the use of Edouard Seguin's three-period lesson, and she discovered that associating name with stimulus produces great pleasure in ‘normal’ children. These three periods are presented in the following way in her book ‘The Method’:

First period. The association of the sensory perception with the name. For example, we present to the child, two colors, red and blue. Presenting the red, we say simply, ‘this is red’, and presenting the blue, ‘this is blue’. Then, we lay the spools upon the table under the eyes of the child.

Second period. Recognition of the object corresponding to the same. We say to the child, ‘give me the red’, and then, ‘give me the blue’.

Third period. The remembering of the name corresponding to the object. We ask the child, showing him the object, ‘what is this?’, and he should respond, ‘red’. (Montessori, 1912, p. 12-25).

In her book ‘Scientific Pedagogy’, Montessori (1937) explains that in the *first period* “the teacher will say the necessary names and adjectives, without adding anything else, uttering the words very clearly and aloud, so that the children can perceive the various sounds that compose the word” (p. 184).

During the *second period*, the teacher should check if the previous period was successful; in other words, you must confirm that the name has been associated with the object in the child's consciousness. “This second period is the most important and contains the true lesson, the true harmonious and associative help” (p. 185). If the child achieves the association, the teacher should repeat the question, ‘which is...?’ or the order, ‘show me the...’ several times so that it is recorded in the memory. But if, on the other hand, the child has not achieved the association and answers it erroneously, the teacher should not insist on asking or correcting it; the best thing will be to suspend the lesson and try in another occasion (Montessori, 1937).

Finally, *third period*, “it's a quick check of previous lessons. The teacher asks to the child, how is this?” (Montessori, 1937, p. 186) thus, she evaluates if the child remembers the lesson.

In more complex presentations than the previous example presented by Maria Montessori, when the concept has already been internalized by the child through the exercise of the material, the teacher introduces the exact nomenclature that corresponds to the new concept (Polk Lillard, 1979).

I will close the method section here. These are just a few of the most important points to consider within the Montessori methodology. Some of these elements will be adapted when proposing a curriculum design for the acquisition of the second language for Hispanic immigrant adults with low academic and socioeconomic levels in the United States of America. Next, I will present what the literature tells us about the Montessori approach in adults.

Montessori in Adults.

The literature regarding the application of the Montessori philosophy or method in older adults with dementia has been increasing in the last two decades (Camp et al., 2017); however, literature with the application of the method in adults without neurological problems is scarce or practically nonexistent.

The Executive Director of the American Montessori Society (AMS) mentions that he has the vision to see an increase in the application of the Montessori method in older adults with dementia “also known as *Montessori-Based Dementia Care*” (Ungerer, 2017, p. 6) in the following years.

Camp et al., (2017) made a reflection of the Montessori method applied to older adults with dementia at an international level and discovered great benefits in active programs in

countries such as France, Australia, Singapore, Spain, Ireland, Canada, Hong Kong, Taiwan, Switzerland and the United States. In addition, there are plans to extend to other countries such as Germany, Mexico, Holland, Poland, Brazil, Argentina and the Czech Republic.

The unifying factor in all of these programs is a set of core values central to the Montessori philosophy -respect, dignity, and equality. [...] And just as Montessori revolutionized education for children by providing choice within prepared environments, the same way of thinking can revolutionize the way we work with persons with dementia (p. 41).

Maria Montessori highlighted the principles of independence and collaboration in children, and also emphasized what they were able to do on their own. The Montessori method applied to dementia highlights the abilities that these adults still have, the ability to improve them through practice and helps them to be as independent as possible, to occupy social roles within a community and to find sense and meaning to their lives. To achieve this purpose, caregivers are trained with elements of the Montessori method, for example: stay at their level to talk to them (in case they are in a wheelchair or seated); caregivers should demonstrate how to do an activity before asking an adult with dementia to do so, they must introduce the activity in a clear, brief, and slow way, and make use of the three-period lesson (Camp et al., 2017).

The authors make detailed mention of cases in daytime centers, adult-assisted residences and nursing homes around the world. To name a few, in 2015, in Melbourne Australia, a pilot project was carried out to assess the impact of the Montessori method on a center for Alzheimer's patients. The staff focused on the skills and interests of each person and the results were very good. A patient who used to sleep a lot during the day, was encouraged to revive his taste for

cooking and, in a few weeks, his interest in cooking pizzas and muffins flourished. (Camp et al., 2017).

Another case occurred in an assisted living center in Arizona, where adults often go to furniture stores to buy old pieces; then, they restore and sell them. The funds are donated to an Alzheimer's association, and so far they have raised more than ten thousand dollars (Camp et al., 2017).

One last example mentioned by Camp et al., (2017) is in a nursing home in Switzerland. Here the residents with moderate to severe dementia receive the health inspectors, give them a tour and answer their questions being the center with the best inspection score. Even, the inspectors doubt that residents have dementia and have had to ask for medical records to corroborate diagnoses. This nursing home received an award from the Swiss Foundation for the quality they provide to their residents.

In conclusion, the authors want the description of these and more examples made in their article to illustrate the universality of the Montessori philosophy and its values.

On the other hand, Hamilton (1999) asked the following questions when he started his Montessori training: “Can adults benefit from the Montessori way? And what might didactic materials for adults look like? (p. 41). It was until several years later that she finally decided to try a self-learning style instead of the lecture style with her university students in the Introductory Psychology class. For one day, she prepared the environment for her students to do different activities. She separated workstations containing some illustration, didactic material or experiential exercises along with an instruction card. The students had to write their answers on a sheet that would be reviewed later. The idea aroused curiosity among the students and the results were surprising:

It set up a classroom atmosphere of learner-centeredness and of a personal, internal locus of knowledge construction. The learnings accomplished by the students in that one day were really quite impressive, especially in light of the fact that no reading had yet been assigned and that no one was yet expected to know any "right" answers (Hamilton, 1999, p. 41).

The answers given by the students showed brilliant and pure perspectives for someone who had not been introduced to the topic, as the students of a Montessori 'children's house' do (Hamilton, 1999).

The author closes her article stating that the Montessori methodology has much to offer to education in all human development states, including adulthood. Her work suggested that adults can benefit from a type of learning in which materials are manipulated, even for those who have a high degree of cognitive development and are able to understand a concept only theoretically. "Montessori has provided us with a template for the transforming of consciousness, for peace education, for lifelong learning, and for educating adults" (p. 42).

Being the literature on the subject so scarce, it seems prudent and necessary to provide research that confirms or denies the usefulness of the Montessori approach to the adult public, who, in my view, require special attention and freedom.

Montessori Leaders

I wanted to include this section to make a brief mention of some personalities who have had a Montessori education and who have excelled for their creativity. Roemer (2012) mentions that divergent thinking skills help develop creativity and the Montessori method drives divergent thinking. Of course, creative people use both types of thinking: divergent and convergent. "As

educators we must allow for and support creativity as we prepare our classroom environments” (p. 4).

Larry Page and Sergey Brin.

Larry Page and Sergey Brin are Google’s founders. Both were ‘Montessori children ’ and this education gave them the kind of thinking that is needed to create and think outside the standards established by the school or society. In one occasion, Tim Armstrong, former member of Google who worked more than a decade with them, recalled in an interview with CNBC (2017) that Larry and Segey asked him during his job interview, to ask himself the questions in front of them. This is a clear example of divergent thinking.

On the other hand, Roemer (2012) states that Larry and Sergey provide their workers a scenario similar to Montessori by applying a program called ‘20-Percent Time ’. In this program, the founders allow their engineers to dedicate one working day a week to develop projects of personal interest (even if they are not part of their work) to keep their creativity alive and their impulse to change the world.

Jeff Bezos.

Jeff Bezos is the founder and CEO of Amazon.com. Jeff is valued at 87.4 billion dollars for Forbes (2017) and Amazon.com is considered to be one of the largest and fastest growing companies in the world.

As a child, Jeff briefly attended a Montessori ‘children's house’ in Albuquerque, New Mexico. In an interview conducted by Montessori Life, Jeff claims that he does not know why his parents decided to enroll him in such a school, but that both believed in stimulation and early education, this being the probable reason. It also ensures that having been able to attend a school with that kind of environment and being stimulated at that age was a very important formative

experience and, although he does not know what scientific research says, intuitively, he believes that Montessori is a good education for children.

Julia Child.

Julia Child is one of the most famous personalities, writer and teacher of cuisine in the world. In the early 1960, Julia started her TV show ‘The French Chef’ (Turner, 1999). Born in 1912, at the age of 3, she began to attend a Montessori school in Pasadena California. She gives credit to her motor education as it became relevant later in her profession. Fitch (cited in Turner, 1999) assures that Julia learned coordination, movement, and posture since childhood, in addition to grace and courtesy, language, and mathematics in her early years at the children's house. Julia was remembered by her friends as a creative girl and a great athlete.

In an interview conducted by Montessori Life, Julia commented that she had very good memories of her years in Montessori and that, at eighty years, she still remembered the fractions. She also mentioned that the method helped her with organizational skills and formation of character.

Other sources of information such as ‘Montessori School of Lake Forest’ (2017) argue that other internationally renowned personalities have attended Montessori schools and have recognized their education as a fundamental part of their careers. Examples of these personalities are: Joshua Bell, Grammy-winning violinist; George Clooney, actor, director, producer, humanitarian, and messenger of peace at the United Nations; Ana Frank, writer; Katharine Graham, writer and former owner and editor of Washington Post, Pulitzer prize winner; Gabriel García Márquez, Nobel prize-winning writer; among many other personalities from the world of arts and technology.

The following chapter will expose some aspects of the curriculum design proposing a Montessori approach for the acquisition of English as a second language in Hispanic immigrant adults with low academic and socioeconomic levels in the United States of America.

Chapter 4

Curricular Design Proposal

In this last chapter I will present the curricular proposal with interrelated elements of the Montessori philosophy and methodology along with some elements of the dimensions, approaches, and methodologies previously presented.

This proposal will include elements of the *Curricular Design Model* (Figure 1) proposed by Doctor Jesús Amaya (class notes, May 12, 2015) to guide the same. I will deepen on the topics to justify the adaptation of the new approach. It is important to emphasize again that, in this development project, a curricular design is not presented here, it is a proposal of curricular design that will be reviewed and later developed in a doctoral project.

The elements adapted to Dr. Amaya's *Curricular Design Model* (Figure 2) to consider will be: context analysis, institutional foundation, student's entry profile, and student's profile after completion. In addition, curricular pillars and possible areas of study are established. Teacher's profile and educational & psychological theories and models are not managed as independent elements, but as part of the methodology in the institutional foundation section. This proposal does not develop a continuum of subjects or a curricular mapping.

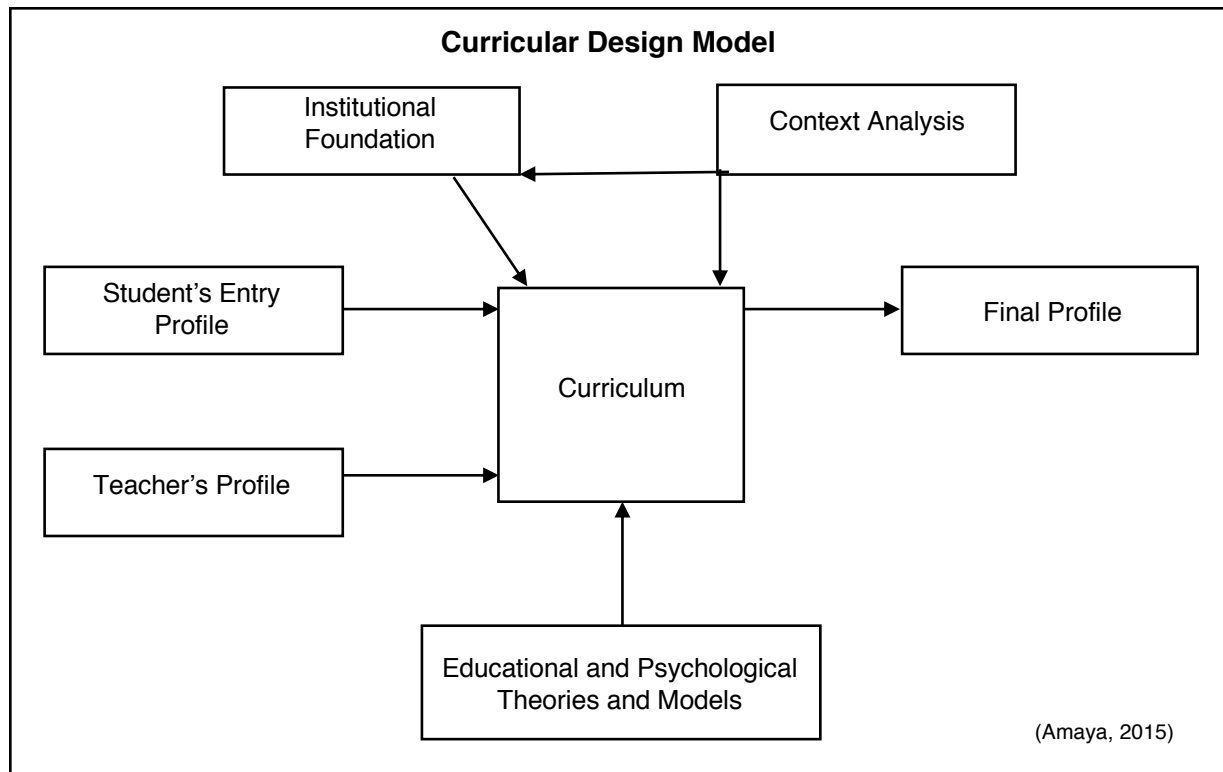


Figure 1. Curricular Design Model

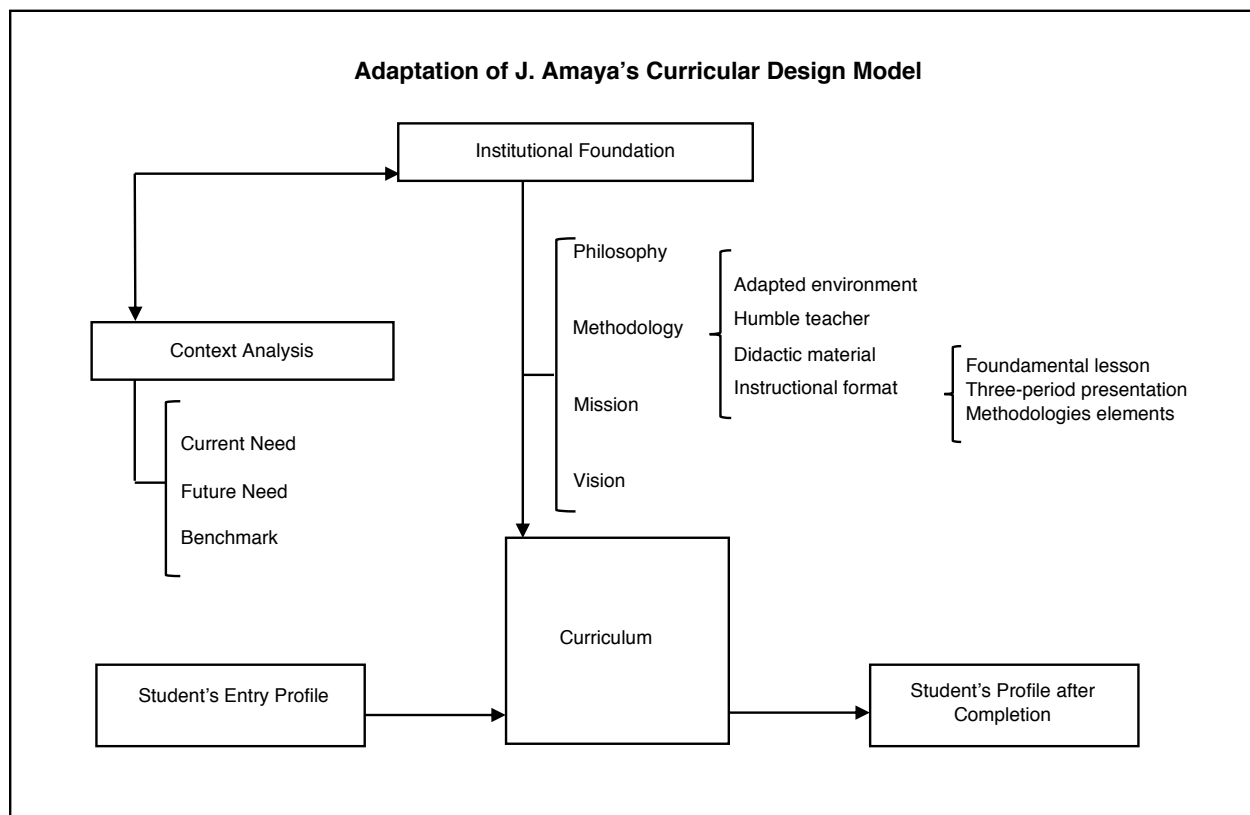


Figure 2. Adaptation of J. Amaya's Curricular Design Model

Context Analysis

Context and current need have already been addressed in the "diagnostics" section in the first chapter (see page 19 for detail). Some points are listed below as a summary.

- Between 2009 and 2013 more than 37.5 million people spoke Spanish in the United States (US Census Bureau, 2015).
- Little more than 50% of immigrants from all over the world arrive from Mexico, Central America, and South America (Pew Research Center, 2014).
- The unemployment rate among the Hispanic immigrant population is 12.9% and “they are more susceptible to living in poverty than non-Hispanic whites and non-Hispanic blacks” (Djamba, Davidson & Winemiller, 2012).
- 12.5 million Hispanics live below poverty line (US Census Bureau, 2015).
- 3.4 million people do not speak "at all" English language (US Census Bureau, 2015).
- The factors affecting the level of income within the immigrant population are education, time of stay in the country, immigration status, and English language proficiency. (CAL, 2010).

Future need.

Due to the high demand for ESL classes in general, the search for qualified staff to work with adult students and appropriate resources to support these efforts (CAL, 2010) it is necessary to look for innovative designing programs and instructional practices adaptable to current needs of immigrants and their characteristics. Adults must prepare for the complexities of today's world and equip themselves with essential skills to be successful (CAL, 2010).

Benchmark.

Since this project is innovative, there is no center at the federal, state, or local level that uses a Montessori approach to ESL instruction in immigrant adults with low academic and

socioeconomic levels. However, in general, according to the National Survey of Domestic Education in 2005 (cited in CAL, 2010), formal English as a second language classes are taught in public schools, learning centers, and continuing education schools. Many of these programs are funded by the federal government.

On the other hand, there are also non-profit associations at the state or local level, for example "The Literacy Council of Central Alabama" which are supported by large associations such as "United Way" and financed by the fundraising of individual donors, companies and/or institutions. "The Literacy Council of Central Alabama" is an organization dedicated to adult literacy through volunteer tutors. One of its programs is free ESL classes for adults in different communities of central Alabama. These classes are offered by volunteers.

At a national level there is the Center for Applied Linguistics (CAL). It is a non-profit organization that promotes access, equity, and mutual understanding for linguistic and culturally diverse people from around the world. Among the populations that CAL serves, there are language educators for children and adults who are learning other languages and English as a second language; immigrants and refugees in the United States and the agencies providing services for them; schools and their districts in need of curriculum development, professional development and evaluation; and policymakers in need of information about language and culture to address today's reality (CAL, 2010).

Institutional Foundation

Philosophy

This section has been developed and adapted considering Montessori philosophy and elements of Freire's pedagogy. Arguments justifying it are exposed.

Maria claimed that the child has “something more valuable than gold, the very soul of man” (Montessori, 1949/2012, p. 3-10). Therefore, one of the philosophy foundations of this new ‘school’ is the recognition of the student’s ‘soul’ and the knowledge of a psychic force every human being possesses. However, we have forgotten that an immigrant is a human being, just as Maria called the child “forgotten citizen” (Montessori, 1966/1982, p. 13).

Maria Montessori worked with children from the “lower social strata; frightened and shy crying children” (Montessori, 1966/1982, p. 16). So, many of these forgotten immigrants, to whom this project is headed, come from the lower social strata, they are not weeping children, but they are shy, and many of them feel incapable of learning something new since society has pushed them aside, has neglected them, has forgotten them.

The recognition of the soul and the knowledge of a psychic force that the immigrant possesses for the simple fact of being human, will be developed by the following principles:
Freedom principle: “The school must permit free and natural manifestations” (Montessori, 1912, p. 82). The students will have the freedom to choose the ‘area’ they want to practice. While there will be a curriculum to follow in a given time, the students are choosing what they want to discover, explore, develop, or improve according to their current needs or their personal interests, within an established period.

Will principle: Hand in hand with the freedom principle, the students will work with a subject or area of interest by their will, whereby their learning will be meaningful.

Independence principle: Maria explains “independence is a natural gift and it leads to freedom” (Montessori, 1946/1997, p. 48). The teacher or guide will be there to help and support, but the student will have the opportunity to work independently if desired.

Development of the imagination and creativity principle: It is never too late to imagine and create. We can, and we must, give to the immigrant adults the opportunity to develop their imagination and creativity to discover solutions and ideas of their own instead of imposed.

Development of the emotional and spiritual life principle: We should not, for any reason, forget that the immigrant adult with a low academic and socioeconomic level is an emotional and spiritual human being. Maria Montessori believed that the human being possesses everything necessary to develop the capacity to love his fellow men and God. It will be essential to recognize (and help them recognize) their spirit as unique and unrepeatable beings. We must take into account that these people have gone through many difficulties and their experiences may have diminished in their self-esteem.

In addition, the interconnection of the spirit with the physical universe will be established following an order, what Maria called cosmic education. This aims to guide the child to these questions: "What am I? What is the task of man in this wonderful universe? Do we merely live here for ourselves, or is there something more for us to do? Why do we struggle and fight? What is good and evil? Where will it all end? (Montessori, 1948/2014, p. 8). These questions are not exclusive to children, the adult can also ask them to find their place and reason for being.

On the other hand, Paulo Freire's ideology must also be considered for the development of the philosophy of this new immigrant school since he believed that oppressed citizens should be aware of their reality and commit to their social and political transformation (Estupiñan y Agudelo, 2008; López, 2008). Freire invited the dialogue of "generative themes", that is to say, topics relevant to the students to build knowledge and language in an active and critical way.

In addition to the above, as an educational institution, we must provide quality education to our students by giving them the tools to develop research and self-learning techniques through

an ‘adapted environment’, prepared and ‘humble’ teachers, and the appropriate materials (this will be seen in detail in the methodology section).

From the previous analysis, the following statement is concluded as educational philosophy:

Recognize the student’s soul as a psychic force to help him awaken his desire for personal and professional growth, through access to quality education of English as a second language in an atmosphere of respect, freedom, equity, independence, and creativity; and developing his intrinsic potential as a unique and valuable human being.

Methodology

I wanted to add an adaptation of the methodology in the ‘Institutional Foundation’ section to make clearer the vision of the Montessori approach in the acquisition of English as a second language in Hispanic immigrant adults with low academic and socioeconomic levels.

In the third chapter we saw the three elements that Maria Montessori considered fundamental in her methodology: “the adapted environment, the humble teacher, and the scientific material” (Montessori, 1957, p. 81). For the purpose of this proposal, the third element will be adapted from ‘scientific material’ to ‘didactic material’ and a fourth element is included: the instructional format.

Adapted environment.

The Montessori method “it is, precisely, characterized by the central importance attributed to the environment” (Montessori, 1966/1982, p. 175). Dr. Montessori had the vision of a special environment for the physical, social, and intellectual development of children. She saw as a physical and intellectual constraint the rigid and heavy furniture of traditional schools, and

turned her classroom into an ‘environment’ that invited the child to absorb everything around him.

A Montessori environment is composed of appropriate furniture: tables, chairs, rugs, shelves with didactic material distributed by sections and/or areas of study and of the domestic or practical life. In this environment, the students have the freedom to move and change positions according to their needs. Usually each student has at his disposal a table and an individual chair, but can work in different areas of the environment, such as on the floor, at a common table, or even outdoors, or near nature, depending on their desires and needs at the moment, as long as they ‘work’ on a topic of the weekly or monthly programming.

I have the vision to create an environment that invites the Hispanic immigrant adult to stay and, most importantly, to return. An environment where physical distribution is aesthetically and intellectually appropriate, not for a child but for an adult. In addition, we must remember this population has low academic background and, probably, has had little access to a traditional classroom during their childhood. Such an environment would have areas of study with shelves for physical and audiovisual didactic material in each of them, practical life area, kitchenette, tables, sliding chairs, common armchairs, blackboards, restrooms, outdoor work area, and a technological area with one or two computers. The space must be open and with natural lighting.

Likewise, in this proposal the adult will have the freedom to work, practice, investigate, or exercise a topic or activity of their choice in the area of the environment that they want, with or without the help of the teacher. Both the distribution of the areas and the aesthetic design of the proposed environment are presented in annexes A-B (Layout proposal of a Montessori environment for ESL in adults) and C-D (Design proposal for a Montessori environment for ESL in adults).

Later, I will expose the proposed areas to develop in this curricular design.

Humble teacher.

Maria Montessori was educated in a traditional school and by traditional teachers of the time. These teachers were rigid, promoted prize and punishment, assessed in a standardized way and did not seem to be very interested in actually knowing their students. Her experience, and later, the observations to her own environments made her understand that the teacher of her school had to be born again, she had to get rid of everything established and “summon herself up with humility” and “she must have a formation, especially a moral one” (Montessori, 1957, p. 34) to get rid of prejudices and help the student to acquire the knowledge in a natural way. The Montessori teacher must prepare the environment and must observe and know her students to guide them, with deep respect, in the materials and in the knowledge.

Also, the ‘new’ teacher of this project would have to accept and follow the philosophy of recognition of the student's soul, his value, and the respect he deserves as a human being. The teacher should be free of prejudice and be humble to the needs of the Hispanic immigrant adult.

Montessori gives us three stages for the spiritual evolution of the guide (Montessori, 1949/2012) that would be adapted as follows:

1. To be guardian of the environment having it always clean and tidy. The teacher, as part of the environment, should also be presentable.
2. To be guardian of the student. To know him, to observe him, to attract him (in a natural sense) through eloquent talk and self-confidence.
3. The teacher will be able to guide the student to the topics and activities, but she must know when to step back to allow a natural and independent development of the student.

In addition, the teacher should have academic preparation of English as a second language, have the appropriate training in the instruction to adults, must be bilingual, bicultural, preferably immigrant, have group, interpersonal, and intrapersonal skills, and be socially responsible.

Didactic material.

The scientific material (didactic) that Maria Montessori developed throughout her career was designed for young children and later, with the help of her son Mario, for older children. The principles described in the third chapter regarding the design of these materials (isolated difficulty, going from simple to complex, to prepare the child for future learning, and designed to go from concrete to abstract) will be considered to design the material of this project. However, it is essential to clarify that we must be careful to design suitable material for the adult and not for the child. The Montessori material to be used in its original design is the language material (grammatical signs, grammatical boxes, movable alphabet, etcetera). The remaining areas will have both physical and audiovisual material as we should consider many of our students will not be able to read and/or write at the start of the course. I consider that the use of nomenclatures, as part of the material, will also be very useful as they would include control of error, an essential element for self-learning.

Also, we would have ‘real’ materials; in other words, if we are in the daily life skills area, we will have work applications, school applications, medical reports, among others, aiming to familiarize the student with the real world.

Instructional format.

I wanted to include this section separate from the didactic material to consider the instructional format of this project. First, we will approach two elements of the Montessori

method: the fundamental lesson and the three-period lesson; and later, a recount of the valuable and significant elements of the various dimensions, approaches, and methodologies seen in the second chapter will be done.

Fundamental lesson.

The fundamental lesson is the introduction to the material and/or a subject presented by the teacher. Montessori (1912) assures that this presentation must have three characteristics: brevity, simplicity, and objectivity.

Also, in this project, the teacher should be aware of the words she chooses when presenting, so the student does not lose the attention. Besides, she should use simple, easy-to-assimilate words avoiding straying away from the objective. Finally, the teacher will have to be as objective as possible to a particular topic, her personality should not interfere with the presentation. Subsequently, if the lesson was understood, the student will be allowed to repeat it as often as he wishes.

Three-period presentation.

The three-period lesson was originally established by Edouard Seguin by associating the name with the stimulus. Maria started using it to establish the relationship between perception and language: in the first period the teacher makes the association by describing the object or material with words; in the second one, a recognition or verification that the first period was understood is made ('show me', 'which is?'); and in the third period, the memory of the learning is checked ('how is this?', 'describe me this'). This lesson will be repeated as often as necessary. I think that this type of lesson is very valuable in the acquisition of English as a second language, so it would be key in the instructional format of this project.

Elements of various dimensions, approaches, and methodologies.

Below is the table of dimensions, approaches and methodologies exposed at the end of the third chapter, but I have added a column that reflects the characteristics in common with this new Montessori approach (Table 2). It is striking to see that Maria Montessori, at the beginning of the last century, had already thought of many of the peculiarities that other methodologies have been adopting over the years. Other of these characteristics, which are not typical of the Montessori system, would be adapted for this project to the ‘Montessorian’ approach in the acquisition of English as a second language in Hispanic immigrant adults with low academic and socioeconomic levels.

Table 2.

Synthesis of characteristics of dimensions, approaches, and methodologies in common with a Montessori approach

Dimensions, approaches, and methodologies	Characteristics	Features in common with the new Montessori approach for adults
Audio-Lingual Method	<ul style="list-style-type: none"> 6. Flourished in the 40's to develop auditory and oral skills. • Sequence: Listen – Speak – Read – Write • Structural patterns and repetition. • Boring and tedious. • Authors: Abu-Melhim and Yanhua 	<ul style="list-style-type: none"> • Sequence: Listen – Speak – Read – Write
Paulo Freire's Approach	<ul style="list-style-type: none"> • Pedagogy based on educational and social problems of the 60 's and 70 's in Brazil. • Education for illiterates and social justice awareness. • Liberation, social and political transformation. • Focus on the content of generative topics (relevant topics). • Humanization of the human being. • Author: Graman 	<ul style="list-style-type: none"> • Humanization of the human being.
BICS & CALP	<ul style="list-style-type: none"> • Developed by Jim Cummins in the late 70 's. • Basic Interpersonal Communicative Skills vs. Cognitive Academic Language Proficiency • Superficial speech and listening skills vs. Academic ability. • Acquisition Period: 2 years vs. 5 – 10 years. • Common underlying proficiency: knowledge transfer between L1 and L2 in CALP. 	<ul style="list-style-type: none"> • Superficial speech and listening skills vs. Academic ability.
Cooperative Learning	<ul style="list-style-type: none"> • 70 's. • Work in small groups. • Opposed to competitive and individualistic learning. • Team and individual goals. • Improves interpersonal and inter-group relationships and self-esteem. • Acceptance of diversity and intercultural relations. • Interdependence, individual, and team responsibilities, face-to-face interaction, interpersonal and team practices, group evaluation. • Collaborative environment. • Authors: Johnson, Johnson & Holubec, Slavin, Contreras León & Chapetón Castro. 	<ul style="list-style-type: none"> • Work in small groups. • Opposed to competitive and individualistic learning. • Team and individual goals. • Improves interpersonal and inter-group relationships and self-esteem. • Acceptance of diversity and intercultural relations. • Collaborative environment.
Competency-Based Education	<ul style="list-style-type: none"> • 70 's and 80 's. • Emerged as a result of three major cultural changes: information, globalization, and scientific and technical civilization. • Set of knowledge, skills, capacities, attitudes, and values necessary to understand and transform reality. • Student-centered learning, learning environment, use of educational materials (SEP). • Seeks proficiency of language associated with specific skills for functioning in society. • Meaning-based language instruction. • Authors: Vargas, Spady, Bonilla, Auerbach, 	<ul style="list-style-type: none"> • Student-centered learning, learning environment, use of educational materials (SEP). • Seeks proficiency of language associated with specific skills for functioning in society.

Task-Based Learning	<ul style="list-style-type: none"> • 1980s. • Task = Activity • Exchange of meanings vs. Grammatical forms. • Processes of real life language. • Target defined. • Engages cognitive processes: Selecting, classifying, sorting, reasoning, etc. • Authors: Willis, Rodríguez-Boncos, Huang, Ellis, Calvert & Sheen 	<ul style="list-style-type: none"> • Relevant activities • Exchange of meanings vs. Grammatical forms. • Processes of real life language. • Target defined. • Engages cognitive processes: Selecting, classifying, sorting, reasoning, etc.
Project-Based Learning	<ul style="list-style-type: none"> • Boom in the 90 's. • Students' commitment to research. • Designed to solve a real problem. • Activities resulting in a final product (model, report, video, etc.) to solve the initial problem. • More ambitious than homework-based learning. • Authors: Blumenfeld et al., Krajcik, Petersen & Nassaji. 	<ul style="list-style-type: none"> • Students' commitment to research. • Real problems solutions.
Situated Learning	<ul style="list-style-type: none"> • Take thought and action to a specific time and place. • Create meaning to achieve learning and skill acquisition. • Involvement of peers, environment, and appropriate activities. • Transfer of knowledge to everyday experiences. • Troubleshooting. • Learning achieved in social environments formed by actors, actions, and situations. 	<ul style="list-style-type: none"> • Create meaning to achieve learning and skill acquisition. • Involvement of peers, environment, and appropriate activities. • Transfer of knowledge to everyday experiences. • Learning achieved in social environments.

We can see that there are traits of all the methodologies; however, Paulo Freire's approach, cooperative learning, task-based learning, situated learning, followed by project-based learning and competency-based learning, are the ones standing out.

To complete this methodology section, as indicated at the beginning of the chapter, this proposal will not develop a curricular mapping or a continuum of subjects, but, at a certain time, weekly, monthly, and/or semiannual programs will be considered to cover a general program of the acquisition of English as a second language.

Mission.

I believe in the value of all human beings, in their inherent equality and their right to seek well-being for their lives regardless of their nationality, ethnicity, physical build, culture, or accent. I am committed to assist immigrant adults during their adaptation to the American culture by offering quality English as second language classes. The mission of this project is to make a difference in the lives of the Hispanic immigrant adults in the United States by providing

opportunities for their personal and professional development.

Vision.

Despite the current political sentiment, I envision a country where all Hispanic immigrants, regardless of their economic status and academic background, have access to quality ESL education and can establish their lives in the spirit of the inscription of the Statue of Liberty “Give me your tired, your poor, your huddled masses, yearning to breathe free...” (US Embassy, 2017). United States can be an equitable and fair society for those who seek to live, work, study, and contribute to the community.

Student’s Entry Profile

The following characteristics have been considered from literature about this population and the analysis done up to this moment; however, this profile could evolve with the project.

- Low (or null) English mastery.
- Varied and reduced availability of study time.
- Student mainly passive, although he wants to participate, not just watch or listen.
- Uncompromising in the face of novelty and cultural changes.
- Need concrete experiences to learn.
- Reasoning capacity, although he shows doubts of that capacity.
- Perceives the need to learn and adapt to the reality that surrounds him.
- Prefers to socialize with people of his own nationality and socio-cultural and economic status.
- Able to follow rules of social coexistence and respect for them.
- Impatient, he has fears and low self-esteem.
- Participates in group activities despite his "passivity".

- Looks for the approval of the host society.

Student's Profile after Completion

The characteristics listed below are, likewise, product of the analysis of the exposed content so far and could be modified according to the evolution of the project.

- Intermediate domain of Basic Interpersonal Communicative Skills (BICS).
- Active student: With initiative, participatory, proactive.
- Flexible in the face of novelty and change.
- Increased concentration.
- Capability to learn based on his own research/conclusions.
- Handles more information.
- Confidence to socialize with people of other nationalities and socio-cultural status.
- Able to educate about civic norms and other topics.
- Increased self-esteem.
- Actively participates in group projects.
- Participates and promotes cultural events of the host society.

Synthesis of Findings and Curricular Pillars

According to the information provided in this curricular proposal, the seven curricular pillars considered prudent for the moment are: centered on the immigrant adult; individualized attention; love, understanding, and recognition of the spirit; environment and stimuli; basic language skills; social awareness and; flexibility. In the following pages there is a synthesized visualization of the proposed curricular design interrelated to the curricular pillars mentioned above (Table 3, Figure 3).

Table 3.
Synthesis of findings and curricular pillars

SOURCE	PURPOSE	FINDINGS
Context Analysis	To know and understand the diagnosis of the environment, the current and future need, and the point of reference	<ol style="list-style-type: none"> 1. Between 2009 and 2013 more than 37.5 million people spoke Spanish in the United States. 2. 3.4 million people do not speak "at all" English language. 3. The factors affecting the level of income within the immigrant population are education, time of stay in the country, immigration status, and English language proficiency. 4. It is necessary to look for innovative designing programs and instructional practices adaptable to current needs of immigrants and their characteristics. 5. Adults must prepare for the complexities of today's world and equip themselves with essential skills to be successful. 6. Formal English as a second language classes, many of these funded by the federal government. 7. Informal ESL classes by non-profits. 8. There is no center at the federal, state, or local level that uses a Montessori approach to ESL instruction in immigrant adults with low academic and socioeconomic levels.
Institutional Foundation	To establish this project's philosophy	<ol style="list-style-type: none"> 9. Recognition of the student's 'soul' and the knowledge of a psychic force every human being possesses. 10. Many of these forgotten immigrants, come from the lower social strata, are shy, and many of them feel incapable of learning something new since society has pushed them aside, has neglected them, has forgotten them. 11. "Permit free and natural manifestations" (Montessori, 1912, p.82). 12. To allow to do student's will instead of imposing something. 13. Chance to work independently. 14. Development of imagination and creativity. 15. Respect the emotional and spiritual human being. 16. Awareness of reality and social justice. 17. Access to quality education.
	To establish this project's methodology: adapted environment, humble teacher, didactic material, and instructional format.	<ol style="list-style-type: none"> 18. Special environment for the physical, social, and intellectual development. 19. Appropriate furniture so the student can move freely. 20. Physical distribution that is aesthetically and intellectually appropriate for an adult. 21. The teacher should be free of prejudice and be humble to the needs of the Hispanic immigrant adult. 22. The teacher should have moral formation. 23. Spiritual development of the teacher being guardians of the environment and the student. 24. Design suitable material for the adult. 25. Use of nomenclatures with control of error. 26. 'Real' materials (work applications, school applications, medical reports, etc.). 27. Fundamental lesson: brevity, simplicity, and objectivity. 28. Three-period lesson: Association/presentation, recognition, and memory. 29. Sequence: Listen – Speak – Read – Write (Audio-Lingual Method). 30. Social justice awareness, liberation, relevant issues, and humanization of the human being (Freire). 31. BICS: Basic Interpersonal Communicative Skills. 32. Work in small groups, team and individual goals, improves interpersonal and inter-group relationships and self-esteem, acceptance of diversity and intercultural relations, collaborative environment (Cooperative Learning). 33. Student-centered learning, learning environment, use of educational materials (Competency-Based Education). 34. Students' commitment to research, designed to solve a real problem (Project-Based Learning). 35. Create meaning, involvement of peers, environment, and appropriate activities. Transfer of knowledge to everyday experiences (Situated learning).
	To establish this project's mission y vision.	<ol style="list-style-type: none"> 36. The mission is to make a difference in the lives of the Hispanic immigrant adults in the United States by providing opportunities for their personal and professional development. 37. I envision a country where all Hispanic immigrants, regardless of background, have access to quality ESL education. 38. Immigrants can establish their lives in the spirit of the inscription of the Statue of Liberty "Give me your tired, your poor, your huddled masses, yearning to breathe free..." (US Embassy, 2017).
Student's Entry Profile	To establish the characteristics of the student upon entering the program.	<ol style="list-style-type: none"> 39. Low (or null) English domain. 40. Varied and reduced availability of study time. 41. Student mainly passive. 42. Uncompromising in the face of novelty and cultural changes. 43. Need concrete experiences to learn. 44. Reasoning capacity. 45. Perceives the need to learn and adapt to the reality that surrounds him. 46. Prefers to socialize with people of his own nationality and socio-cultural and economic status. 47. Able to follow rules of social coexistence and respect for them. 48. Impatient, he has fears and low self-esteem. 49. Participates in group activities. 50. Looks for the approval.
Student's Profile after Completion	To establish the characteristics of the student at the end of the program.	<ol style="list-style-type: none"> 51. Intermediate domain of Basic Interpersonal Communicative Skills (BICS). 52. Active student: with initiative, participatory, proactive. 53. It is flexible in the face of novelty and change. 54. Increased concentration. 55. Capability to learn based on own research/conclusions. 56. Increased self-esteem. 57. Actively participates in group projects. 58. Participates and promotes cultural events of the host society.

CURRICULAR PILLARS	FINDINGS No.
Centered on the immigrant adult	1, 2, 3, 5, 35, 36, 37, 38, 41, 44, 46, 48, 52
Individualized attention	4, 12, 13, 27, 28, 29, 33, 34, 41, 54, 55
Love, understanding, and recognition of the spirit	9, 10, 15, 21, 22, 23, 56
Environment and stimuli	4, 11, 14, 18, 19, 20, 24, 25, 26, 32, 33, 49, 53, 54, 55, 56
Basic Language Skills	17, 26, 29, 31, 35, 39, 43, 44, 45, 51, 56
Social Awareness	5, 10, 16, 30, 42, 44, 45, 47, 50, 53, 56, 58
Flexibility	4, 34, 35, 37, 40, 49, 55, 57

Figure 3. Synthesis of Findings and Curricular Pillars

Areas

The following areas have been taken as references from the Center for Applied Linguistics (CAL, 2010) and considered from empirical experience and literature from the second chapter in the sections of characteristics of the Hispanic immigrant and biculturalism, community, and society. It should be mentioned that each area would have physical materials and audiovisual media for greater and better development. All areas presented and described below would aim to assist in relevant and significant aspects of the Hispanic immigrant adult; in addition to aiming at the acquisition and practice of English as a second language.

Lifeskills.

This area will introduce or reinforce English language skills by using audiovisual and didactic materials in contexts of daily life such as medical appointments, personal finances, shopping, applying for a job, among others. From experience, Hispanic immigrants need constant help for such daily situations. The goal would be to help them develop the language they require to function, independently, on a daily basis.

Biculturalism, community, and society.

The second chapter addressed the benefits of biculturalism within a society, and I consider vitally important that the immigrant adult understands the opportunity to belong and develop in two different cultures without eliminating or replacing his native identity. The immigrant's willingness to participate civically and culturally can open the doors of the host society and make him partaker of its cultural activities. Reciprocally, the immigrant, being confident of himself, will be able to let the society know and invite them to know his cultural traits. To achieve this, it is necessary, to be knowledgeable of beliefs and values, to have a positive attitude to this cultural opening, to have a good self-esteem, and to be able to

communicate through the acquisition of the language (Basilo et al., 2014, section Theoretical Conceptualizations of Biculturalism, para. 2).

Therefore, this area would have the mission of making the immigrant see the benefits of seeking to belong to a new culture without giving up his own and avoiding isolation. It would include physical and audiovisual didactic material on the history of the host country (in this case the United States) and of entrenched traits and traditions from both countries. This section would be bilingual; that is, the materials would be in both languages since I think is fundamental that both, historical education and benefits of biculturalism, are understood from the beginning.

Civics.

This area would integrate English instruction into civic aspects such as rights, responsibilities, citizen participation, and nationality, since as ‘new’ residents of this country they must follow and respect. Immigrants must be informed of both, responsibilities and rights to act in accordance with civic common sense. The area would include physical and audiovisual bilingual material.

Working skills.

We have seen in the second chapter under the section ‘characteristics of the Hispanic immigrant’ that “undocumented immigrants are overrepresented in several sectors of the economy, including agriculture, construction, leisure/hospitality and services” (Passel & Cohn, 2009, para. 16). Therefore, in this area we seek to improve the skills of the English language relevant to the desired working environment. The aforementioned sectors would be considered, and others could be included as necessary.

Health.

Also, in the second chapter, we talk about the deteriorated health of many of the Hispanic immigrants living in the United States. Sanchez-Birkhead, Kennedy, Callister & Miyamoto (2011) mention that Hispanics living in the United States for more than five years, have more obesity, hypertension, and heart disease than those who have been less time in the country; in addition, immigrant Hispanic women have a high mortality rate due to late diagnosis of diseases such as breast cancer or cervical cancer. Sanchez-Birkhead, Kennedy, Callister & Miyamoto (2011) say that this is due, among other factors, to lack of information and late diagnosis.

Thus, the health area in the environment of this new project would include relevant and meaningful material and information to educate about these (and other) diseases, and to generate prevention awareness. This last part is indispensable, as one of the traits of Hispanic immigrants is that most of them do not have health insurance (Passel & Cohn, 2009). It should be noted that in addition to educating on health issues, the goal is to develop the elements of language needed for the immigrant.

Language (Montessori).

I think it is important to include the basic Montessori language area with materials such as symbols and grammatical boxes, among others. When the student is ready to start in the English language grammar study, we must be prepared to provide these tools.

Technological area.

In this part of the environment, we would seek to incorporate one or two computers for the use of teachers and students. While it is expected that the student will have a low socioeconomic and academic level and, possibly, little access to technology, I think it is a good opportunity to offer an introduction to this world, and thus, to open their learning possibilities.

Practical Life.

Finally, the environment should include a practical life area. That is, materials, tools, utensils of domestic life such as broom, mop, sink, cleaning utensils, among others. This area may or may not include a kitchen. We must remember that one of the Montessori environment characteristics is to allow the student to take care and keep everything included in the environment. This section of the environment is also very important for the acquisition of the language since they would have the opportunity to learn vocabulary from a real perspective and not through a textbook.

These are the areas that, for the moment, I think relevant to consider. These could evolve or could be modified according to the evolution of the project when it is underway.

Conclusions

It has been verified with statistics reported by the United States Census Bureau, the Pew Research Center and the U.S. Department of Labor that there exist in the United States little more than 21 million of immigrants from Mexico, Central America, South America and the Caribbean. The characteristics of these immigrants are varied, but it is estimated that 3.4 million Hispanics do not speak English "at all" and many of these immigrants also have a lower average wage compared to people born in the country. The Center for Applied Linguistics (CAL, 2010) reports that the factors affecting the level of income within the immigrant population are education, time of stay in the country, immigration status, and English language proficiency.

Some of the factors of lacking English acquisition in Hispanic immigrant adults are fear of deportation, low self-esteem, xenophobia, fear of error, anxiety, lack of involvement with the culture of the host country, coexistence only with people of the same culture, sociocultural level, low economic resources, lack of motivation, and previous educational level (McCluskey, 2011; Zacharakis, Steichen, Sabates y Glass, 2011).

The acquisition of English as a second language in adults has been a highly studied subject over the years, and the dimensions, approaches and methodologies exposed in the second chapter are a sample of how this study has evolved. Research into the use of Montessori philosophy and methodology in children is extensive, but in adults it is limited to those who suffer from Alzheimer's or senile dementia. Studies or proposals for the acquisition of English as a second language in immigrant adults with low academic and socioeconomic levels following a philosophy or Montessori methodology is non-existent.

In my opinion, it is very important we do not look away from this population, especially vulnerable, and give them the opportunity to try to improve their quality of life through the acquisition of English.

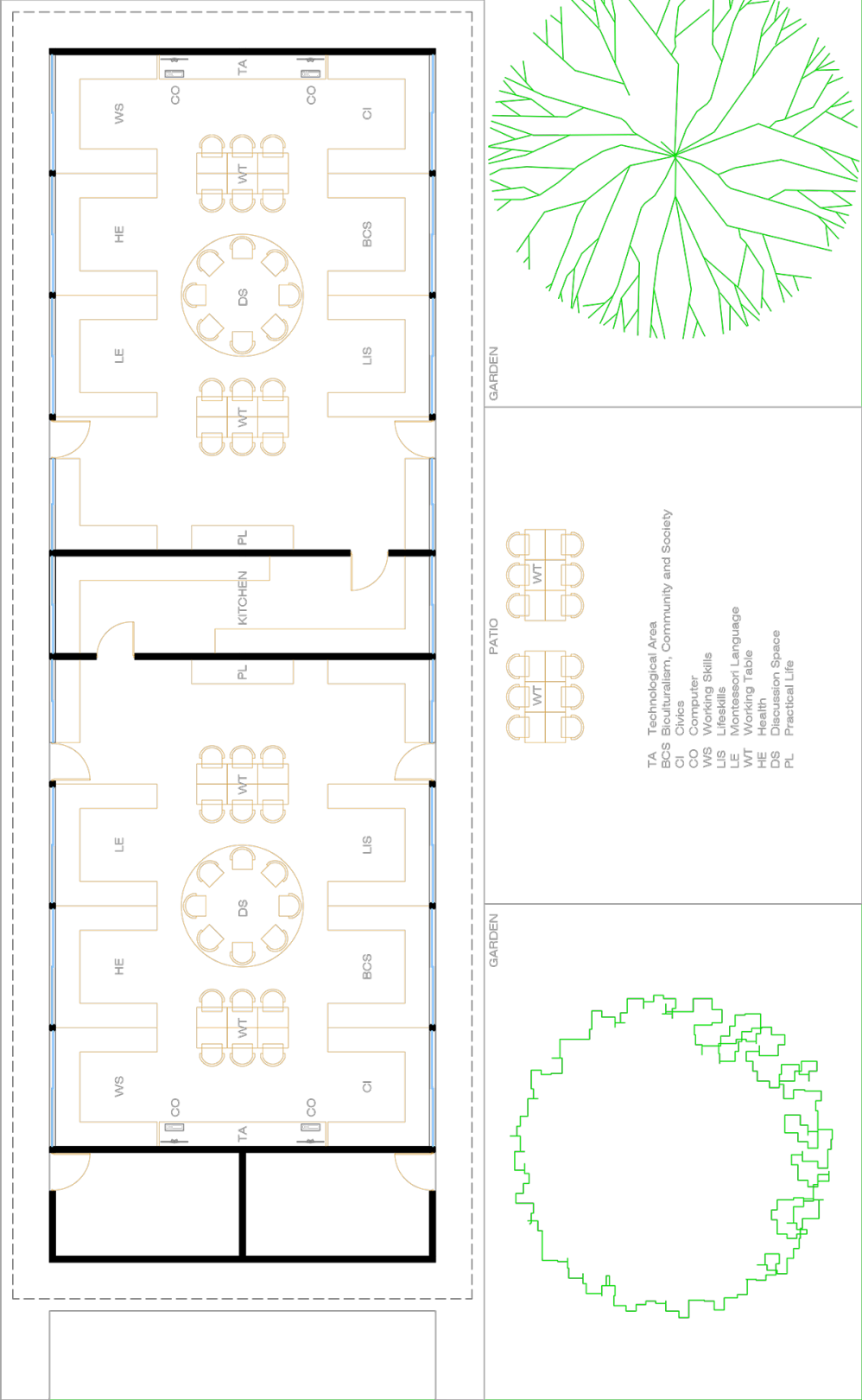
This is, without a doubt, an ambitious project. Not only does it imply putting in place an educational project, but because of the focus and the population it is aimed at. The majority of the literature about Montessori education is directed to children and it would be easier to point to their needs and to develop a project aimed at them. However, I believe we should not forget the immigrant adult needs, and not underestimate their learning possibilities. “Knowledge is not elitist, knowledge is for all those who learn” (J. Esquivel, personal communication, 2016).

The revised proposal in this project implies adapting a Montessori-style environment for adults that is functional and aesthetic. It means acquiring furniture and, very importantly, designing and developing didactic materials of each area. In addition, we must have professionals in the acquisition of English as a second language who believe in the mission and vision of this project, and we must prepare them according to the philosophy and methodology exposed. It is imperative, too, to carry out multiple action-research tests with the desired population to adapt the curricular design.

The foregoing means having financial support, either government or private support, or through access to non-profit foundations, organizations, or educational institutions. Given the current political climate in the country, this support could be a real challenge; but I do not think it is impossible.

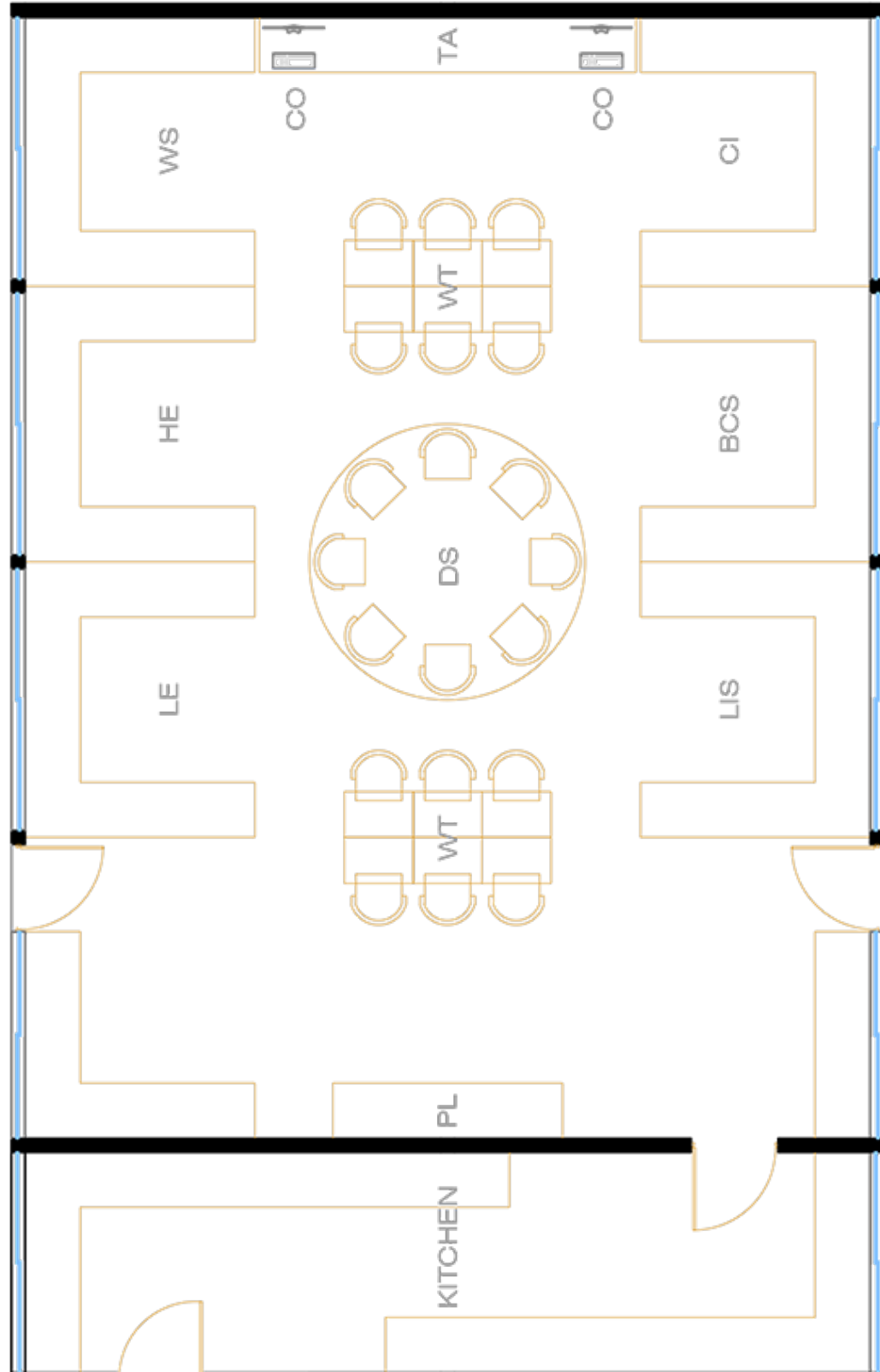
I believe that this proposal, being innovative, is grounded and deserves to be considered for its development and implementation. Its success will depend on the efficiency in the application of the pillars and curricular elements.

ANNEX A: Layout proposal of a Montessori environment for ESL in adults



Design: M. Corona, J. Valencia

ANNEX B: Layout proposal of a Montessori environment for ESL in adults (close up)



Design: M. Corona, J. Valencia

ANNEX C: Design proposal of a Montessori environment for ESL in adults (Angle 1)



ANNEX D: Design proposal of a Montessori environment for ESL in adults (Angle 2)



REFERENCES

- Abu-Melhim, A. (2009). Re-evaluating the effectiveness of the Audio-lingual Method in teaching English to Speakers of Other Languages. (Undetermined). *International Forum of Teaching & Studies*, 5(2), 39-63.
- Amaya, J. (2015). Modelo de Diseño Curricular. *Class notes*. Universidad de Monterrey.
- Auerbach, E. R. (1986). Competency-Based ESL: one step forward or two steps back? *Tesol Quarterly*, 20(3), 411-430. Recovered from: http://tesol.aua.am/tq_digital/TQ_DIGIT/Vol_20_3.pdf#page=27
- ASPE - Assistant Secretary for Planning and Evaluation- (2016). *Poverty Guidelines*. Recovered from: <https://aspe.hhs.gov/poverty-guidelines>
- Basilio, C. C., Knight, G. P., O'Donnell, M., Roosa, M. W., Gonzales, N. A., Umaña-Taylor, A. J., & Torres, M. (2014). The Mexican American Biculturalism Scale: Bicultural Comfort, Facility, and Advantages for Adolescents and Adults. *Psychological Assessment*, 26(2), 539-554. doi:10.1037/a0035951. Recovered from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4041836/>
- Bigelow, M., Schwarz, R. L., & National Institute for, L. (2010). Adult English Language Learners with Limited Literacy. *National Institute for Literacy*. Recovered from: <https://files.eric.ed.gov/fulltext/ED512297.pdf>
- Blumenfeld, P. C., Soloway, E., Marx, R. W., Krajcik, J. S., Guzdial, M., & Palincsar, A. (1991). Motivating project-based learning: Sustaining the doing, supporting the learning. *Educational psychologist*, 26(3-4), 369-398.
- Bonilla, J. B. C. (2010). Reflexiones sobre la educación basada en Competencias/Reflections on competence-based education. *Revista Complutense de Educación*, 21(1), 91-106.
- Bowers, F. B., & Gehring, T. (2004). Johann Heinrich Pestalozzi: 18th Century Swiss Educator and Correctional Reformer. *Journal of Correctional Education*, 55(4), 306-319.
- Buckenmeyer, R. (2009). *The philosophy of Maria Montessori: What it means to be human*. Bloomington, IN: Xlibris LLC
- Burt, M., Peyton, J. K., Adams, R., Center for Applied Linguistics, W. D., & National Center for ESL Literacy Education, W. D. (2003). *Reading and Adult English Language Learners: A Review of the Research. Series on Preparing Adult English Language Learners for Success*. Recovered from: <http://files.eric.ed.gov/fulltext/ED482785.pdf>
- Camp, C., Antenucci, V., Roberts, A., Fickenscher, T., Erkes, J., & Neal, T. (2017). The Montessori method applied to dementia: an international perspective. *Montessori Life*, 29(1), 40-47.

- Calvert, M., & Sheen, Y. (2015). Task-Based Language Learning and Teaching: An Action-Research Study. *Language Teaching Research*, 19(2), 226-244.
- Carhill, A., Suarez-Orozco, C., & Paez, M. (2008). Explaining English Language Proficiency among Adolescent Immigrant Students. *American Educational Research Journal*, 45(4), 1155-1179. Recovered from: <https://steinhardt.nyu.edu/scmsAdmin/uploads/004/297/AERJ%202008.pdf>
- Center for Applied Linguistics. (2010). *Education for adult English language learners In the United States: Trends, research, and promising practices*. Washington, DC: Author.
- Contreras León, J. J., & Chapetón Castro, C. M. (2016). Cooperative Learning with a Focus on the Social: A Pedagogical Proposal for the EFL Classroom. *How*, 23(2), 125-147.
- Cummins, J. (1980). The Cross-Lingual Dimensions of Language Proficiency: Implications for Bilingual Education and the Optimal Age Issue. *TESOL Quarterly*, 14(2), 175-87.
- Cummins, J. (1999). *BICS and CALP: Clarifying the Distinction*. Recovered from: *ERIC, EBSCOhost*
- Daniel, M. m., & Huizenga-McCoy, M. H. (2014). Art as a Medium for Bilingualism and Biculturalism: Suggestions from the Research Literature. *GIST: Education & Learning Research Journal*, 8171-188.
- Dávila, L. T. (2008). Language and Opportunity in the "Land of Opportunity": Latina Immigrants' Reflections on Language Learning and Professional Mobility. *Journal Of Hispanic Higher Education*, 7(4), 356-370. doi:10.1177/1538192708321652
- Dewey, John (1998). *Democracia y educación*. España: Ediciones Morata. Reimpresión PP. 4-13
- Díaz –Sánchez, G., & Álvarez-Pérez, H.J. (2013). Neurociencia y bilingüismo: efecto del primer idioma. *Educ. Educ.* (16)2, 209-228
- Djamba Y. K., Davidson T. C., & Winemiller T, L. (2012). The Hispanic population in Alabama. Center for demographic research. *Auburn Montgomery Outreach*, May 2012.
- Duffy M. & Duffy D'Neil. (2002). *Children of the universe: Cosmic education in the Montessori elementary classroom*. Hollidaysburg, PA: Parent Child Press
- Ellis, R. (2003). *Task-based language learning and teaching*. Oxford University Press.
- Quiñones, N. E., & Cely, N. A. (2008). Identidad cultural y educación en Paulo Freire: reflexiones en torno a estos conceptos. 1. (Spanish). *Revista Historia De La Educación Latinoamericana*, (10), 25-40.

- Ferreiro Gravié, R. (2007). Una visión de conjunto a una de las alternativas educativas más impactante de los últimos años: El aprendizaje cooperativo. *Revista electrónica de investigación educativa*, 9(2), 1-9. Recovered from: http://www.scielo.org.mx/scielo.php?pid=S1607-40412007000200013&script=sci_arttext
- Finn, D. (2011). Principles of Adult Learning: An ESL Context. *MPAEA Journal of Adult Education*, 40(1), 34-39.
- Forbes Profile (2017). *Jeff Bezos, CEO and founder, Amazon.com*. Recovered from: <https://www.forbes.com/profile/jeff-bezos/>
- Foschi, R. (2012). *Maria Montessori*. Roma: Ediesse.
- Freire, P. (2005). *Pedagogía del Oprimido*. México: Siglo XXI Editores.
- Fuentes, B. B., Mas, F. F., Mein, E. E., & Jacobson, H. J. (2011). Un currículo interdisciplinario de base teórica para enseñar inglés como segunda lengua. (Spanish). *Colombian Applied Linguistics Journal*, 13(2), 60-73.
- González Suárez, E. (2011). Conocimiento empírico y conocimiento activo transformador: algunas de sus relaciones con la gestión del conocimiento. (Spanish). *Acimed*, 22(2), 110-120.
- Graman, T. (1988). Education for humanization: applying Paulo Freire's pedagogy to learning a second language. *Harvard Educational Review*, 58 43-448
- Haja Mohideen Mohamed, A., & Tasdiq Nomaira, A. (2015). Cultural Approximation, Alienation and the Role of English as a Second Language in Canadian Society. *Arab World English Journal*, 6(3), 275-292.
- Hamilton, P. (1999). Perceptual Learning and Lifelong Montessori. *Montessori Life*, 11(4), 41-42.
- Herrerías Brunel, C., & Isoard Viesca, M. (2014). Aprendizaje en proyectos situados: La universidad fuera del aula. Reflexiones a partir de la experiencia. (Spanish). *Sinéctica*, 431-16.
- HICA! (2011). What you need to know. *Court Decision Alabama's Immigration Law HB 56*.
- Hubbard, M., & Marsh D. (2011). VIEWPOINTS: Strict immigration law protects Alabamians. *The Birmingham News*. Recovered from: http://blog.al.com/birmingham-news-commentary/2011/11/viewpoints_strict_immigration.html
- Huang, J. (2010). Grammar Instruction for Adult English Language Learners: A Task-Based Learning Framework. *Journal Of Adult Education*, 39(1), 29-37.

- INTO - University of Alabama at Birmingham (2016). *English Language Program*. Recovered from: <http://www.intostudy.com/en-gb/universities/the-university-of-alabama-at-birmingham/programs>
- Jensen, E., & Association for Supervision and Curriculum, D. (2005). *Teaching with the Brain in Mind, 2nd Edition*. Association for Supervision and Curriculum Development.
- Johnson, D. W., Johnson, R. T., & Holubec, E. J. (1999). *El aprendizaje cooperativo en el aula*. Buenos Aires: Paidós.
- King, M. C., Reyes Morales, R., López Salinas, A., Gijón Cruz, A. S., Corbett, J. G., & Williams, K. M. (2014). El impacto de la reforma de inmigración estadounidense a nivel estatal en migrantes mexicanos indocumentados: La pérdida de acceso a licencias de manejo en Oregon. (Spanish). *Frontera Norte*, 26(52), 55-84.
- Knowland, V.S.P., & Thomas, M. S. C. (2014). Educating the adult brain: How the neuroscience of learning can inform educational policy. *International Review of Education* (2014) 60, 99–122, doi:10.1007/s11159-014-9412-6
- Kopan, T. (2017). States taking more of a lead on immigration, citing federal inaction. *CNN Politics*. Recuperado de: <http://edition.cnn.com/2017/08/07/politics/states-immigration-policies/index.html>
- Krajcik, J. S., & Blumenfeld, P. C. (2006). *Project-based learning* (pp. 317-34). na.
- Kramer, R. (2017). *María Montessori. A biography*. New York, NY: Diversion Books. (Original work published 1976).
- Lawson, B. (2011). Alabama immigration law arguments to be heard today by federal appeals court panel. *The Huntsville News*. Recovered from: http://blog.al.com/breaking/2012/03/alabama_immigration_law_argume.html
- López, J. O. (2008). Paulo Freire y la pedagogía del oprimido. (Spanish). *Revista Historia De La Educación Latinoamericana*, (10), 57-72.
- López Urdaneta, J. L. (2011). Spanish-English Writing Structure Interferences in Second Language Learners. *GIST Education and Learning Research Journal*, (5), 158-179. Recovered from: <http://files.eric.ed.gov/fulltext/EJ1062595.pdf>
- McCluskey, C. (2011). Professional Development to Work with Low-Educated Adult ESL Learners: Searching Beyond the Program. *CATESOL Journal*. 23(1), 56-64.
- McFarland J. & McFarland S. (2011). *Montessori Parenting*. Buena Vista, Colorado: Shining Mountains Press.

- Montessori, M. (1912). *Montessori Method. Scientific pedagogy as applied to child education in "the children's houses with additions and revisions by the author.* (A. E. George, Trans.). New York, NY: Frederick A. Stokes Co.
- Montessori, M. (1937). *Pedagogía Científica.* (3era ed.) (P.V. Juan, Trans.) Barcelona, España. Editorial: Araluce
- Montessori, M. (1957). *Ideas generales sobre mi método* (2da ed.). Buenos Aires, Argentina: Editorial Losada, S.A. (Trabajo original publicado en 1912).
- Montessori, M. (1966/1982). *El niño. El secreto de la infancia.* (2da ed). México D.F, México: Diana.
- Montessori, M. (1997). *Educación para un nuevo mundo.* Buenos Aires, Argentina: Longseller. (Trabajo original publicado en 1946).
- Montessori, M. (2012). *The absorbent mind.* New York, NY: Start Publishing LLC. (Original work published 1949).
- Montessori, M. (2014). *La educación de las potencialidades humanas.* Ámsterdam, Países Bajos: Montessori-Pierson Publishing Company. (Trabajo original publicado en 1948).
- Montessori School of Lake Forest (2017). *Famous Montessori Students.* Recovered from: <http://www.msllf.org/famous-montessori-students/>
- Motel, S. & Patten, E. (2012). The 10 largest Hispanic origin groups: Characteristics, rankings, top counties. *Pew Research Center. Hispanic Trends.* Recovered from: <http://www.pewhispanic.org/2012/06/27/the-10-largest-hispanic-origin-groups-characteristics-rankings-top-counties/>
- Passel, J. S. & Cohn, D. (2009). Demographic and family characteristics. *Pew Research Center. Hispanic Trends.* Recovered from: <http://www.pewhispanic.org/2009/04/14/iii-demographic-and-family-characteristics/>
- Passel, J. S. & Cohn, D. (2009). Demographic and family characteristics. *Pew Research Center. Hispanic Trends.* Recovered from: <http://www.pewhispanic.org/2009/04/14/iv-social-and-economic-characteristics/>
- Passel, J. S., Cohn, D., & Gonzalez-Barrera, A. (2012). Characteristics of Mexican-born immigrants living in the U.S. *Pew Research Center. Hispanic Trends.* Recovered from: <http://www.pewhispanic.org/2012/04/23/vi-characteristics-of-mexican-born-immigrants-living-in-the-u-s/>
- Peckover, C. (2012). Realizing the Natural Self: Rousseau and the Current System of Education. *Philosophical studies in education*, 43,84-94.

- Pew Research Center (2016). *Statistical Portrait of the Foreign-Born Population in the United States*. Recovered from: <http://www.pewhispanic.org/2016/04/19/2014-statistical-information-on-hispanics-in-united-states/>
- Pew Research Center (2016). *Statistical Portrait of Hispanics in the United States*. Recovered from: <http://www.pewhispanic.org/2016/04/19/statistical-portrait-of-hispanics-in-the-united-states/>
- Petersen, C. c., & Nassaji, H. (2016). Project-Based Learning through the Eyes of Teachers and Students in Adult ESL Classrooms. *Canadian Modern Language Review*, 72(1), 13-39. doi:10.3138/cmlr.2096
- Piehl, K. (2011). Can Adults Learn a Second Language? Research Findings and Personal Experience. *The Delta Kappa Gamma Bulletin*. 33-37
- Polk Lillard, P. (1979). *Un enfoque moderno al método Montessori*. (3ra ed.). México, D.F: Editorial Diana.
- Povell, P. (2007). Maria Montessori: Portrait of a Young Woman. *Montessori Life: A Publication Of The American Montessori Society*, 19(1), 22-24
- Real Academia Española (2017). *Definición de Sociedad*. Recovered from: <http://dle.rae.es/?id=YCB6UHV>
- Real Academia Española (2017). *Definición de Comunidad*. Recovered from: <http://dle.rae.es/?id=A5NKSVv>
- Real Academia Española (2017). *Definición de Cultura*. Recovered from: <http://dle.rae.es/?id=BetrEjX>
- Rodríguez-Bonces, M., & Rodríguez-Bonces, J. (2010). Task-Based Language Learning: Old Approach, New Style. A New Lesson to Learn (Aprendizaje basado en tareas: un antiguo enfoque, un nuevo estilo. Una nueva lección para aprender). *PROFILE: Issues in Teachers' Professional Development*, 12(2), 165-178
- Roemer, K. p. (2012). Creativity and Montessori Education. *Montessori Life*, 24(1), 4-5.
- Rousseau, J. J. (1889). *Émile; or concerning education. Extracts*. (E. Worthington, Trans.). Boston, MA: D.C Heath & Company.
- Sagástegui, D. (2004). Una apuesta por la cultura: El aprendizaje situado (Spanish). *Sinéctica*, (24), 30-39.
- Sanchez-Birkhead, A. C., Kennedy, H. P., Callister, L. C., & Miyamoto, T. P. (2011). Navigating a new health culture: experiences of immigrant Hispanic women. *Journal of immigrant and minority health*, 13(6), 1168-1174.
- Secretaría de Educación Pública (2011). Plan de Estudios 2011. Educación Básica.

- Stephenson, S. M. (2015). Cosmic Education: The Child's Discovery of a Global Vision and a Cosmic Task. *NAMTA Journal*, 40(2), 151-163
- Slavin, R. E. (1999). *Aprendizaje cooperativo: teoría, investigación y práctica*. Buenos Aires: Aique. Recovered from: <http://apoclam.org/archivos-recursos-orientacion/Educacion%20inclusiva/Estrategias/slavin-el-aprendizaje-cooperativo.pdf>
- Spady, W. G. (1977). Competency Based Education: A Bandwagon in Search of a Definition. *American Educational Research Association*. 6(1), 9-14.
- Spruck Wrigley, H. (2012). Dimensions of immigrant integration and civic engagement: Issues and exemplary programs. *New Directions for Adult & Continuing Education*, 2012 (135), 25-32. doi:10.1002/ace.20023
- Spruck Wrigley, H. (2008). "From Survival to Thriving: Toward a More Articulated System for Adult ESL Literacy." In Ivan de Craats and Jeanne Kurvers (eds.), *Low Educated Adult Second Language Literacy Acquisition: Proceedings of the Fourth Symposium, Antwerp 2008*. Utrecht, Netherlands: Netherlands Graduate School of Linguistics.
- Stein, D., & ERIC Clearinghouse on Adult, C. O. (1998). *Situated learning in adult education*. *ERIC Digest No. 195*.
- The Literacy Council of Central Alabama (2017). *Learn to speak English*. Recovered from: <https://alliteracycouncil.wordpress.com/learn-to-speak-english/>
- Turner, J. (1999). Cooking with Julia—a Montessori child. *Montessori Life*, 11(4), 26-29.
- Turner, J. (2000). Mr. Amazon.com: an interview with founder Jeff Bezos. *Montessori Life*, 12(1), 30-33.
- Ungerer, R. A. (2017). The future of Montessori education. *Montessori Life*, 29(2), 6.
- United States Census Bureau (2016). *Detailed Languages Spoken at Home and Ability to Speak English for the Population 5 Years and Over: 2009-2013*. Recovered from: <http://www.census.gov/data/tables/2013/demo/2009-2013-lang-tables.html>
- United States Census Bureau (2016). *Language Use in the United States: 2011*. Recovered from: <https://www.census.gov/library/publications/2013/acs/acs-22.html>
- United States Census Bureau (2016). *POVERTY STATUS IN THE PAST 12 MONTHS BY SEX BY AGE (HISPANIC OR LATINO)*. Recovered from: <https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=CF>
- United States Embassy (2017). *Estatua de la Libertad*. Recovered from: <https://mx.usembassy.gov/es/education-culture-es/american-spaces-en-mexico/biblioteca-benjamin-franklin/recursos/preguntas-frecuentes/estatua-de-la-libertad/>

- Vargas, L. M. R. (2008). Diseño curricular por Competencias. *Asociación Nacional de Facultades y Escuelas de Ingeniería ANFEI*. Recovered from: https://www.gob.mx/cms/uploads/attachment/file/182548/libro_diseno_curricular-por-competencias_anfei.pdf
- Vidal Ledo, María Josefina, Salas Perea, Ramón Syr, Fernández Oliva, Bertha, & García Meriño, Ana Liz. (2016). Educación basada en competencias. *Educación Médica Superior*, 30(1) Recovered from http://scielo.sld.cu/scielo.php?script=sci_arttext&pid=S0864-21412016000100018&lng=es&tlng=es.
- Ward, M. (2017). The surprising interview tactic Google's Larry Page and Sergey Brin use to vet job candidates. *CNBC Make it*. Recovered from: <http://www.cnbc.com/2017/05/31/google-larry-page-and-sergey-brin-ask-an-unusual-interview-question.html>
- Weinberg, D. d. (2009). Maria Montessori and the secret of Tabula Rasa. *Montessori Life*, 21(2), 30-35.
- White, K. K., Yeager, V. A., Menachemi, N., & Scarinci, I. C. (2014). Impact of Alabama's Immigration Law on Access to Health Care Among Latina Immigrants and Children: Implications for National Reform. *American Journal of Public Health*, 104(3), 397-405.
- Willis, J. (1996). A flexible framework for task-based learning. *Challenge and change in language teaching*, 52-62.
- Yanhua, X. (2014). Language theories and language teaching—from traditional grammar to functionalism. *Journal of Language Teaching & Research*, 5(3), 559-565. doi:10.4304/jltr.5.3.559-565
- Zacharakis, J., Steichen, M., de Sabates, G. D., & Glass, D. (2011). Understanding the experiences of adult learners: Content analysis of focus group data. *Adult Basic Education & Literacy Journal*, 5(2), 84-95.