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The Teaching of English Vocabulary through the Multisensory Approach to Older Adults in a
Private Nursing Home in Pereira, Colombia

Luis F. López Gómez

Bryan Montes Osorio

Yessica E. Rodríguez Ramírez

Universidad Tecnológica de Pereira

Facultad de Bellas Artes y Humanidades

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ASESORA:

Dolly Ramos

Universidad Tecnológica de Pereira

Facultad de Bellas Artes y Humanidades

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**Resumen**

El siguiente documento es un proyecto de investigación cualitativo cuyo objetivo es integrar la teoría andragógica y el enfoque multisensorial para facilitar el aprendizaje de vocabulario en inglés a adultos mayores. Adicionalmente, este estudio es una iniciativa para incluir a los adultos mayores en un proceso de educación bilingüe ya que esta población casi no ha sido tomada en cuenta para la realización de proyectos bilingües. Por esta razón, este proyecto propone nuevas oportunidades para futuras investigaciones

El presente estudio fue implementado en el hogar del anciano Casa Santa María en Pereira, Colombia. Este proyecto fue llevado a cabo en 10 clases en las cuales las participantes aprendieron 47 palabras relacionadas con su contexto inmediato. Las participantes del proyecto fueron cuatro mujeres, quienes tenían más de 60 años de edad. Las cuatro fueron consideradas como un proceso de muestreo típico intencional para recopilar los datos, los cuales fueron interpretados por los investigadores. Además, durante la implementación del estudio, tres métodos de recolección de datos fueron empleados: observaciones, diarios de campo, y entrevistas. Los datos recogidos fueron analizados aplicando la teoría fundada, y después de este análisis los datos sugirieron que a) las estrategias de aprendizaje autodirigido pueden facilitar el éxito del aprendizaje de vocabulario y b) los sentidos de los adultos mayores tienen diferentes usos dependiendo de la etapa de la clase. Para concluir, el enfoque multisensorial es efectivo para enseñar vocabulario en inglés a adultos mayores junto con los principios andragógicos.

Palabras clave: andragogía, vocabulario en inglés, enfoque multisensorial, enseñanza.

## Abstract

The following paper is a qualitative research study which is aimed to integrate the andragogical theory and the multisensory approach to facilitate older adults' learning of English vocabulary. In addition, this study was an initiative to include older adults in a bilingual education process due to the fact that this population has not been highly taken into account for bilingual projects. Therefore, this project proposes new opportunities for future research.

This study was implemented in Casa Santa María nursing home that is located in Pereira, Colombia. This project was conducted in 10 classes, in which the participants learned 47 words related to their immediate context. The participants were four women, who were over 60 years old, and they were considered to a purposive typical sampling process to collect that data, which was interpreted by the researchers. Moreover, during the implementation of the study, three data collection methods were employed: observations, journals, and interviews. The data collected was analyzed applying grounded theory, and after this analysis, the data suggested that a) self-directed learning strategies can facilitate older adults' vocabulary learning success and b) older adults' senses have a different use depending on the stage of the class.

Keywords: andragogy, older adults, English vocabulary, multisensory approach, teaching.

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*Yessica Esmeralda Rodríguez Ramírez*

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## Introduction

This study was carried out by members of the research group In-bloom from the Licenciatura en Bilingüismo con Énfasis en inglés program from the Universidad Tecnológica de Pereira in Casa Santa María nursing home. The aim of this research project was to teach English vocabulary to older adults through the use of the multisensory approach along with the andragogical principles. On the one hand, multisensory approach involves sensory activities. This approach facilitates students learning success since the information is presented in different modalities (Mercer & Mercer, 1993). In this regard, this study implemented the multisensory approach by involving the older adults in activities that stimulated the senses of sight, hearing, smell, touch, and taste. On the other hand, the methodology that guided this approach was andragogical principles which is concerned with helping adults to learn (Knowles, 1984). After considering these two main concepts, the researchers contemplated older adult learners' interests, background, and needs, to come up with the most appropriate vocabulary for the classes.

Furthermore, it was necessary to have clarity of the input that should be delivered in the classes. Therefore, Krashen's input hypothesis was selected as a guide for the selection of the core of the study, which was English vocabulary, and the different elements related to vocabulary learning such as the form, meaning, use, and variety. These aspects were considered in order to present feasible and achievable language goals to the older adults.
Moreover, the research involved a third age population, which present special characteristics; therefore, recommendations to deal with this population were also considered for the development of the study. In Colombia, there are few studies that integrate the teaching of

English to older adults, which means that older adults have not been taken into account for

English Language Teaching (ELT).

  Nevertheless, there were some international studies related to this project, which

contributed to have a clear referent to know about the impact of teaching to this population. For

example, Cassell (2011) conducted a study, which was carried out in a non-formal library, to

inquire about factors that influence older adults' English language learning. Considering the

scarcity of similar studies in the Colombian context, this study had the purpose of including this

population in bilingual education by implementing 10 English classes and documenting all the

valuable information in order to come up with findings that impacted positively this population.

In this sense, the results of the study suggest that vocabulary learning success is influenced by

learners use of self-directed learning strategies, the five senses have different uses depending on

the stage of the class, and the appropriate selection of vocabulary should take into account the

andragogical theory and the multisensory approach.

## 1. Statement of the problem

In Colombia, the older adult population have become one of the vulnerable communities in need of state protection due to several reasons. According to "El Ministerio de Salud Nacional", social inequality affects the older adult population regarding their economic income, social security, and educational level. Moreover, Colombia has suffered a long-term conflict caused by different social phenomena, such as the opposing political ideologies, social inequity, land distribution, narcotics trafficking, and government reluctance, which has directly affected the Colombian society for decades in terms of its integral development, including that of education. For instance, the Colombian economic model, which the internal conflict also jeopardized through the narcotics trafficking, hindered the educational process of the current older adult generation by supporting the agricultural development without considering the professionalization of its farmers. Hence, an entire generation was destined to not completing their primary educational levels in order to continue working on the agrarian areas.

Uribe (2006), who conducted a research about the history of Colombian education, accurately portrays the previously addressed circumstances by analyzing Colombians' illiteracy rate according to the decade they lived on. He stated that almost 60 percent of Colombians were illiterate between the decades of 1940 and 1960. Therefore, the majority of the current generation of older adults is either illiterate or started to study at a late age; thus, it demonstrates their exclusion in terms of both academic and cognitive development along their lifetime. Accordingly, it is time, as the law statutes 1251 and 1850 demand, to include and support older adults as active social agents who have the constitutional right to access education, bilingualism, and recreational projects, which is the intended impact for the older adult population involved in this research. Throughout this chapter, aspects such as the legislation, history, projects,

objectives, and obstacles concerning older adult education and welfare will be addressed taking into account both national and local contexts.

After addressing some of the main factors affecting older adults' educational level and lifestyle, it is now fundamental to review the national government endeavors to protect this vulnerable community. Also, the ideal situation regarding older adults' educational level and inclusion in bilingualism projects will be described. The law 115 of 1994, statute 67 from the Colombian constitution, establishes education as a fundamental right for all citizens despite their social stratification, culture or race; thus, the government is the entity responsible for the educational policies' success. As a result, an expected outcome deriving from the law 115 is to turn the illiterate older adult population into literate citizens capable of reading and writing. It is worthwhile to mention that by having literate older adults who can manage the main four language skills in their mother tongue, possible bilingualism national projects designed for this population might have a greater impact since written input could be used during the lessons.

Regarding this concern, Pakzadian (2012) states that students' first language proficiency level and skills directly affect their second language learning process since the syntactic structures in their first language allow the second language concepts to be learned effectively. Therefore, based on Pakzadian's research outcomes, it can be stated that in order to include older adults in bilingualism projects, it is necessary first to support them to master specific skills of their first language (especially reading and writing). Before improving older adults' literacy and education, it is mandatory to provide them with high-quality life conditions that allow the learning process to take place. Based on this assumption, the ideal situation would be that the older adult population become recognized by society as empowered citizens who can act upon concerns related to nowadays reality. For instance, Colombian aging national policy, article 7,

recognizes older adult relevance within Colombia's cultural, political, economic, and social development by appreciating their life experience, labor, and knowledge, which has to be transmitted and valued generationally.

Unfortunately, a study conducted by the Asociación Colombiana de Gerontología y Geriatría (2017) suggested that almost 40% of Colombian older adults suffer from depression due to relatives' abandonment, healthcare deficiency and society's perception towards them. Finally, those are axiological and welfare obstacles that Colombia has to overcome in order to enhance the impact of every policy designed to support the older adult population, which includes the policies concerning education and bilingualism. In the following paragraphs, historical contextualization, legislative and theoretical needs, purposes, and contributions that this research might provide to the EFL field will be mentioned and analyzed in detail.

Now, it is necessary to review the policies that the Colombian government has developed to cope with illiteracy.  During the last two decades, the Ministerio de Educación Nacional (MEN) has launched several endeavors to offer appropriate educational programs to adults which strives to decrease their levels of illiteracy. It is important to clarify that the policies that will be mentioned later on refer to adult education, which according to the Law 115 involves the population that exceeds the age regularly accepted in the education by levels and grades of the public educational service, and this includes older adult people. One of the policies proposed by the MEN to cope with adult educational deficiency is the decree 3011 of the Law 115, which establishes that adult education is part of the public educational service; therefore, all projects that benefit the public educational institutions should also impact adults' education while taking into account their specificities. In this sense, the law statute 1251, article 17, prioritizes the

access of older adults to the public educational system in order to include them within actual

social concerns.

Accordingly, the second chapter of the law 115 establishes the inclusion of adults to

education by providing distance, presence and blended learning programs considering the

Proyecto de Educación Institucional (PEI) of each educational establishment. Furthermore, as

stated in the decree 3011 of 1997, the programs offered for adult education by the national

government are: a) literacy, b) basic education, c) middle education, and d) informal education.

Moreover, the "Directiva Ministerial No. 14" (2004) and the "Circular 07" (2008) are aimed to

guide the literacy programs in order to decrease the levels of illiterate adults and people above 15

years old. Finally, the law 1850 of 2017, article 7, addresses directly older adults' needs by

demanding that the national and local governments apply projects towards the empowerment of

older adults in terms of their participation within their communities. As a matter of fact, the

projects addressed in the law statute 1850 have to include older adults' rights and duties as

citizens when deciding about the cultural, economic and social factors surrounding them.

Moreover, in order to contribute to the theorization of older adult education, valuable

international, national, and local researches have been conducted. These studies contribute to this

field since they a) study the relationship between two variables related to older adult education.

For instance, a research conducted by Yi-Yin (2011), in the United States, inquired about the

relationship between motivation and higher education. Yi-Yin (2011) found that higher

education can function as a stimulating learning environment that helps older adults meet their

late-life development needs and can lead them toward a meaningful and positive aging

experience; and b) provide insights of the implementation of different approaches, strategies, and

techniques that address older adult educational needs and specificities; for example, the study

carried out in Pereira, Colombia by Aricapa and Yepes (2017) in which they aimed to investigate whether the implementation of games was a successful technique for English as a Foreign Language (EFL) older adult learners to acquire English vocabulary. The researchers found that games not only help EFL learners in their vocabulary learning, but they also have a positive impact on learners' motivation to learn.

The previously mentioned policies regarding older adult education present several issues since they attempt only to literate older adults, but they do not pursue a higher educational goal in content areas such as mathematics, social and natural sciences, or English. Literacy is as valuable for the older adults as for other populations due to the fact that it allows them to be active participants of society, culture, and academy. Additionally, although there are several pieces of research that investigate aspects related to older adult education, there are few studies addressing the teaching of English to older adults in Colombia.

Firstly, it is important to mention that the Colombian policies regarding adult education are based on pedagogy that contrasts with andragogy, which is more appropriate to approach adult learning and teaching. Secondly, it must be said that the Colombian policies about adult education are not designed exclusively for the older adult population, instead, they attempt to embrace all the citizens that did not have access to education or that belatedly accessed to it. Thirdly, all the policies were developed more than ten years ago, which means that adult education in Colombia has not received attention in the last decade; consequently, meaningful changes to adapt them to current priorities, such as bilingualism, have not been made. In this regard, the article "Across cultures, English is the word", published in the New York Times, states that English is the most dominant language nowadays due to its global usage for economic, cultural, and interactional purposes. Accordingly, bilingualism in Colombia has received a lot of

attention this decade through the creation of the national programs such as Colombia very well (2006), and Colombia Bilingue (2014), that were exclusively designed for public education institutions.

Fourthly, policies addressing adults' English learning have not been a priority for the national government; for instance, Jaime Pérez Tamayo, who is the principal of the Instituto Metropolitano de Educación (IME), highlights the fact that in Colombia there is lack of awareness about the need of learning English, especially in adults. Moreover, it is crucial to mention the low quantity of empirical research studies related to older adult education in Colombia and Pereira, especially studies aimed to implement different techniques to teach English to older adults. The few researches that exist are aimed to improve children and teenagers' English proficiency or they were carried out in foreign contexts. Furthermore, there is no evidence of researches conducted in Colombia that integrate the implementation of the multisensory approach to teach older adults considering the andragogical principles.

In brief, the MEN does not offer policies or programs that address older adult learning of a foreign language exclusively. For that reason, Colombian older adults are being excluded within bilingual development, frameworks, and projects. As a result, this social issue leads the researchers of this project to be aware of the need of bilingual programs' application as well as the implementation of different strategies, like the multisensory approach, to teach English to third age population in Colombia. By considering the previously addressed circumstances, it is important to highlight that the state protection should also support the older adult population beyond their literacy development with the objective of including them on 21st century social needs.

The disadvantages of older adult education in Colombia that were previously mentioned are the reasons that determine the purpose of the current project, which is to promote bilingualism in an older adult population applying an alternative methodology while offering them engaging experiences through artistic and recreational activities. To achieve the previous objective, several aspects such as the organization of vocabulary and learning experiences need to be discussed based on the andragogical principles and the multisensory approach. Accordingly, the application of the multisensory approach to teach vocabulary is the most innovative proposal of this project due to two main reasons. Firstly, older adults' interest in artistic activities is being considered for designing and implementing the project.

Secondly, engaging activities aimed towards the production of a certain outcome allow older adults to learn and use high-frequency words with a specific purpose in the immediate context. Thus, the multisensory approach is an alternative methodology that might ease English Language Teaching practices (ELT) for the third age learners. Finally, it is important to highlight that in Colombia EFL teaching practices aimed for third-age adult learners have not considered methodologies related to the usage of arts as an engaging tool; this aspect increases the expected outcomes relevance in terms of vocabulary teaching and learning strategies. This makes this project an innovative study that aims to involve an excluded population in the learning of EFL.

Additionally, this research will contribute to the theorization of older adult education in view of the fact that this study will provide information about the impact that the multisensory approach might have on old adults with respect to the way they learn EFL. According to Shams and Seitz (2008), educators have long believed that multisensory training can enhance learning inasmuch as it can engage individuals with different learning styles. Additionally, the results of this study will serve as a base for future researches so that they can keep extending the search

and go deeper for new knowledge about the multisensory approach and older adult education, especially when referring to learning EFL.

This research will also provide an insight into the way that the multisensory approach may contribute to English language classrooms and the implications it may bring into the curricula. Moreover, in terms of the contribution to the teaching field, this study will provide steps for teachers to implement the multisensory approach considering the andragogical principles. Also, teachers can find recommendations about the usage of the multisensory approach, what they can do and what to avoid. Finally, teachers will benefit from this project since they can become aware of the benefits of teaching older adults through andragogy since in Colombia pedagogy is used to teach kids, teenagers, and adults.

## 1.1 Research questions

- How can the multisensory approach implementation ease vocabulary learning for older adult learners based on the andragogical principles?

- How do older adult learners perceive English vocabulary learning through the multisensory approach?

## 1.2 Research objectives

### 1.2.1 General objectives

- To determine how the implementation of the andragogical principles and multisensory approach favor older adults' vocabulary learning.

### 1.2.2 Specific objectives

- To identify if there exists a relationship between the implementation of the multisensory approach and older adult learners' motivation to learn vocabulary.

- To measure older adults' learning progress by analyzing their vocabulary usage in immediate contexts: Classroom and nursing home.

- To determine the positive and negative aspects of using the multisensory approach to teach EFL to an older adult population.

## 2. Conceptual framework

Throughout this conceptual framework the concepts of andragogy, older adult learning, comprehensible input, vocabulary learning, and multisensory approach will be defined according to the findings made by different authors. These concepts are relevant for this project as they encompass the applicability of strategies, theories, and modalities in the fields of language teaching and education to foster vocabulary learning in the older adult population.

Regarding andragogy, Knowles (1970), Devici (2007), Jarvis (1985), and Davenport and Davenport (1985) agree that andragogy is the most appropriate approach to understand and teach adult learners. Moreover, Schmall (2000), Glisky (2007), and Bastable and Dart (2010) argue about the aspects to consider when referring to older adult learning and the effects of teaching practices in this population. Furthermore, Krashen (1985), Schwieter (2013), and Piske (2009) describe how comprehensible input should be considered for appropriate language teaching. Additionally, Nation (2006), Thornbury (2002) and Siyanova and Webb (2016) propose strategies to enhance vocabulary learning in order to support learners to communicate effectively. Finally, Dickinson (2002) and Rauscher, Gordon, Levine and Ky (1994) highlight the importance of the multisensory approach for learners' L2 improvement.

### 2.1 Andragogy

This section is aimed to present an overview of andragogy in order to understand its historical background, definition, and main principles. Additionally, information about the relationship between pedagogical and andragogical principles and its importance in adults' learning process will be given.

**2.1.1 History**

Knowledge about the history of andragogy provides a deeper understanding of the trajectory of adult education since it was first coined by the German teacher Alexander Kapp in 1833. Kapp (1833) used andragogy to describe elements of Plato's education theory and it presented a contrast between andragogy (*andr*– meaning 'man') and pedagogy (paid- meaning 'child' and *agogos* meaning 'leading'); however, the term was disputed and fell into disuse (as cited in Henschke, 2009). Later, in 1921, after World War I, the German Rosenstock-Huessy returned the term and stated that andragogy refers to the special requirements that adults have in order to learn successfully; for example, methods, philosophy, and teachers (as cited in Henschke, 2009). About the same time, Lindeman (1926) brought the term andragogy to America and he described it as the method for teaching adults; in this way, he proposed the *discussion method* as the most appropriate one for teaching adults, which he said is different from teaching children (as cited in Henschke, 2009); for instance, in pedagogy, children have a passive role, while in andragogy adults have an active role. More information about the differences between these populations will be addressed in the following section.

Moreover, during 1960's and 1970's, Malcolm Knowles popularized the term and the concern on adult education; therefore, he is recognized as the "father of andragogy". Knowles' conception of andragogy tries to build a comprehensive theory of adult learning that is based on the characteristics of adult learners (Merriam and Caffarella, 1991). To summarize, pedagogy contributed to the construction of a new theory about adult learning because andragogy emerged from the conclusion that pedagogy did not account for adult developmental changes; then, started to arise thoughts about the need to consider these developmental changes for adults to have an appropriate learning environment and successful learning

**2.1.2 Andragogy and Pedagogy**

Jarvis (1985) compares the theories of pedagogy and andragogy. For instance, in pedagogy, the learner is expected to be dependent and the teacher is the one who decides what, when, and how is the content to be learned, while andragogy gives the learner independence and the learner is supposed to be self-directed. Moreover, the learner's experience, according to the pedagogical theory, has little relevance; however, in andragogical theory the learner's experience is valuable for learning. Additionally, pedagogy involves that the society is who determines what learners should learn, so the curriculum is standardized. On the other hand, andragogy acknowledges what the adult learner wants to learn; in this way, learning programmers are organized around learning application. Furthermore, while in pedagogy the subject determines the sequence according to the learning content units that will be presented and taught (subject-centered), in andragogy learners need to be taught information that is useful in their personal lives and work environment (performance-centered).

Davenport and Davenport (1985) also point out some of the andragogical and pedagogical differences in application. In pedagogical theory, the instructor diagnoses the needs of the learners, prepares objectives, and evaluates the process. The instructor is the knowledge transmitter; therefore, the learner has a passive role. In contrast, an instructor with andragogical philosophy aims to create an informal, collaborative and respectful climate; besides, he involves the learner in the process of designing and evaluating the learning activities, which are based on the learner's problem areas.

Devici (2007) supports that although most adults are andragogically oriented, some of them are pedagogically oriented. In this way, according to Chametzky (2014) for a learner to be able to function in an andragogical learning environment, four sub-doctrines must be considered.

These tenets form an acronym that Chametzky (2014) call SEAR: learners must be a) Self-

directed or Self-guided, b) Encouraged, c) Accustomed to learning in an andragogical way, and

d) Ready to learn in an andragogical style. Sometimes, not everyone is ready to learn through

these principles (Knowles, 1984). In cases in which learners do not have the requisites to learn

through andragogy, Knowles (1980) recommends using pedagogy in order to rely on the

instructor to understand the most relevant information; later, when the learners are prepared

enough, they can be taught through andragogical principles. Knowles (1980) stated that the

principles of andragogy must enable learning rather than forming a barrier that inhibits learning.

**2.1.3 Definition**

Firstly, Knowles (1980) defines andragogy as *"the art and science of helping adults*

*learn"* (p. 38). According to Knowles (1980), andragogy is a set of assumptions about adults as

learners and a series of recommendations for the planning, management, and evaluation of adult

learning. Moreover, Devici (2007) states that this explanation of the concept has two important

presuppositions; a) self-directedness is a core of adulthood, and b) andragogical practice involves

collaboration with the learners in their quest for learning. Knowles (1980) supported the

difference between adults and children learning; therefore, he developed five assumptions (the

fifth was added later in 1984) as the main characteristics of adults' cognitive development during

their learning process. These assumptions are:

*2.1.3.1 Self-concept.* Maturity allows adult learners to be self-directed in their learning; this

involves readiness to learn, setting learning goals, involvement in their learning process, and

learning evaluation. Also, adult learners realize that the instructor is no longer the single person

who holds the knowledge and when they take responsibility for their own learning, they become

active consumers in their learning (Knowles, 1980), they become self-directed (Coole & Watts,

2009; Knowles, 1975). Based on their individual needs, self-directed learners decide the speed

they want to learn, when to study, and in what direction their learning will proceed (Knowles,

1975, 1980) (as cited in Chamotzky, 2014).

*2.1.3.2 Experience.* Throughout their lives, adults have accumulated a great reservoir of

experience which is valuable in a class based on andragogical principles. These experiences form

the figurative hooks where learners can place new knowledge (Hedin, 2010; Mezirow, 2000).

Creating these cognitive connections to previous knowledge helps learners to make the learning

process easier. Additionally, these hooks and connections that are vital for learning success since

they support the learning process and increase learners' motivation to learn. The relationship

between the educational hooks, the learners' motivation, and the desire to learn is seen in Figure

1.



Hooks  --> Increased motivation  --> Increased desire
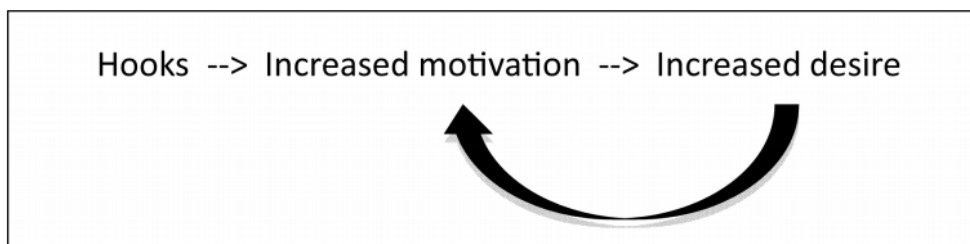
**Figure 1.** Relationship between educational hooks, learner motivation, and learner desire.

The hooks lead the learner to feel that he or she can relate to the material more easily

thereby making the subject matter easier to internalize. Because this internalization is easier,

learners perceive themselves to have a greater subject matter competency (as cited in

Chamotzky, 2014).

*1.1.3.3 Readiness to Learn.* Adult learners have specific learning objectives. The connection

between learners' objectives and motivation is strong (McGrath, 2009). If learners are motivated

to acquire specific knowledge, they will acquire it. However, learners want and need to

understand how the new information will benefit them (McGrath, 2009) in order to grow

(Gutierrez, Baralt, & Shuck, 2010). Without that knowledge, learners may not be ready to learn and internalize the necessary subject matter (as cited in Chamotzky, 2014).

*2.1.3.4 Orientation to Learn.* As a person matures, his time perspective of learning is one of immediacy application of knowledge and the orientation toward learning is one of problem centeredness. The opportunity to address real-world situations in an andragogic learning environment is essential (Horsley, 2010; Zipp, Cahill, & Clark, 2009). When learners realize that they are able to employ a specific knowledge acquired from solving a real-world issue, their level of motivation increases. In addition, when learners address real-world concerns, their desire for learning the subject matter increases. In this way, a strong relationship exists between learner objectives and the solutions to real-world problems (as cited in Chamotzky, 2014).

*2.1.3.5 Motivation.* Adult learners have an intrinsic motivation. This assumption is related to the first assumption since by being self-directed, learners feel empowered, which drives learners to learn more (Lebedev & Fedoseyeva, 2009). Furthermore, with this feeling of empowerment, learners are more motivated to study anywhere and at any time (Diaz, 2010). Additionally, *motivation* is also related to *experience* because when adult learners can relate their experiences to the new knowledge, their enjoyment of the subject matter is intensified. According to Evans, Hartman, and Anderson (2013), these motivational factors make students to want to do their work which leads to adults having an intrinsic motivation to learn (as cited in Chamotzky, 2014).

These five assumptions are considered advantages that the adult population has, and they might serve as positive aspects affecting adults' learning process. Moreover, these assumptions are related among them; these characteristics mark a differentiation between pedagogy and andragogy (Knowles, 1984).  Furthermore, Devici (2007) argues that these assumptions imply

some principles that teachers should consider when teaching adults: learners (a) should know why something is important to learn, (b) need guidance about how to direct themselves through information, (c) need to be able to relate the topic to their experiences, (d) can learn when they are ready and motivated to learn, and (e) might need help to overcome inhibitions, behaviors, and beliefs about learning. Also, he adds that the andragogical model is a process model in which the facilitators prepare a set of procedures in order to involve adult learners in their learning process.

## 2.2 Older adult learning

This section is intended to analyze the changes that adults experiment as they become older and how this process affects physical and cognitive aspects that are related to their learning process. Variety of authors have been included in order to clarify how aging is a process that involves physical and mental deterioration. Additionally, information about older adult learners' special needs will be presented. Finally, this data is relevant for this research since older adults' characteristics and needs must be taken into account during the implementation stage.

### 2.2.1 The process of aging

Becoming older is an inevitable and irreversible process for which every human must go through. According to the interview made by Universidad de Barcelona to Dr. Francesc Formiga, the aging process is different in each human being since the organs age at a different speed. There is not an exact moment at which all humans begin to become older, it depends on aspects as having fewer neurons, fewer nephrons, and less muscle strength. Bastable and Dart (2010) describe these factors as physiological changes that are universal, progressive, decremental, and intrinsic. To explain that aging occurs at different times and in different ways, Glisky (2007) asserts that "just as age-related changes in brain structure and function are not uniform across the whole brain or across the individuals, age-related changes are not uniform across all cognitive

domains or across all older individuals" (p.); therefore, it is common to realize that some older

adults have more cognitive and physical capacities than others.

### 2.2.2 Sensory perceptive abilities

As people become older, the neurons deteriorate and this affects their cognition;

therefore, their capacity to learn is affected as well. For instance, Bastable and Dart (2010) state

that "cognitive ability changes with age as permanent cellular alterations invariably occur in the

brain itself, resulting in an actual loss of neurons, which have no regenerative powers" (p.35).

This means that older adult deteriorations of physical and mental health have a secondary impact

on their ability to learn and understand the world around them. Generally, the first areas that start

to be impacted by cognitive deterioration are the senses (Bastable and Dart, 2010), which are

humans' faculties that allow the perception of external stimuli. As senses are important learning

sources, the decline of them hinder the learning process of older adults. However, this

deterioration occurs after the 80 years of age as pointed out by Schmall (2000); therefore, it can

be stated that adults with good sensory faculties still possess good learning capacities. This

affirmation favors one of the beliefs of this project which is that older adults still can learn

despite their age. In this sense, it is relevant to describe Schmall (2000) classification of sensory

changes of third age adults, which involves vision, hearing, taste, smell, and touch.

*2.2.2.1 Vision*. This sense is very important for humans to function in the environment. The

deterioration of this sense presents to the individual a difficulty to perform kinesthetic activities

and problems when learning through elements such as colors, images, or texts. When vision

starts to decrease, it may cause isolation and loss of interest to interact with others. People with

vision loss may experience problems with mobility, poor orientation, and frightening visual

impressions that resemble hallucinations. This also provokes difficulty in performing daily activities such as walking, getting outside, and transferring in and out of a bed or chair.

*2.2.2.2 Hearing*. Hearing is considered the "social sense" since it allows humans to easily interact with people. Significant hearing loss might affect communication and relationships with people. Therefore, this can lead to withdrawal, isolation, and depression, which at the same time can lead to suspiciousness, paranoia, disagreements, and alienation from family and friends. In some cases, older adults that have hearing problems try to answer what they understand they were asked, but due to their hearing impairment they might answer something that does not make sense and it can be confused with cognitive impairment.

*2.2.2.3 Taste and smell*. During the old age, the affectation of the taste sense might impact the pleasure and satisfaction that older adults obtain from food. After the age of 50, the ability to perceive each of the taste sensations (sweet, salty, bitter, and sour) declines, but especially older adults become more sensitive to salty food. However, the sense of smell is more affected than the taste. Smell deteriorations have important consequences for nutrition, safety, personal hygiene and enjoyment of life.

*2.2.2.4 Touch*. Touch sensitivity and the physical feeling of pain decrease as humans become older. Certain chronic diseases such as diabetes, circulation problems, stroke, Parkinson's disease, and arthritis can further affect a person's sense of touch. Some third age adults find it difficult to differentiate textures and objects by only touching. Some may experience a delayed reaction to being touched. Additionally, touch can reduce anxiety and provide comfort.

   Schmall (2000) highlights the fact that it is more important to focus on what older adults can do rather in what they are not able to do anymore. In this sense, it is not only necessary to be

patient when helping adults to learn, but also it is important to make them feel comfortable, secure, and respected for them to increase their self-esteem and thus their motivation to learn.

Furthermore, there are two important cognitive skills that have a fundamental role in older adult learning, these are attention and memory. It is valuable to understand how older adults' attention and memory work since they have a significant impact on their learning; consequently, teachers should consider this information to create an appropriate class for third age learners to acquire knowledge successfully.

### 2.2.3 Attention and memory

Glisky (2010) states that attention and memory are capacities that are also affected as humans become older. There are several attention and memory sub-concepts that have been investigated in the field of aging; nonetheless, this paper is particularly concerned on selective attention (SA) and working memory (WM). In this sense, these concepts need to be considered when planning and implementing the project.

*2.2.3.1 Selective Attention*. Glisky (2010) mentions that attention is a basic but complex cognitive process that has multiple sub-processes specialized for different aspects of attentional processing. However, as attention is limited, SA allows humans to focus on important details. It means that SA refers to the ability to attend to some stimuli while disregarding others that are irrelevant for a specific task. Older adults respond to the tasks slower, but they are not differentially affected by distraction than younger adults; therefore, deficits found in older adult development of different tasks can be attributed to a general slowing processing of information rather than to SA deficit. This is important for this project inasmuch as selective attention will

guarantee that the participants will have the ability to respond to the teaching without being distracted by any other external factors.

*2.2.3.2 Working Memory*. WM is a system aimed to store and manage the information required to develop complex cognitive tasks such as learning, reasoning, and comprehension (Glisky, 2010). WM is involved in the selection, initiation, and termination of information-processing functions such as encoding, storing, and retrieving data. When the stimulus of the information that is being processed by the WM is significant and adequate for the person, the system of WM is in charge of encoding and storing data in the long-term memory. Long term memory is defined by Atkinson & Shiffrin (1968) as the change in the process of transferring or encoding knowledge that can be stored for long periods of time. Long-term memory decrease with the aging, older adults exhibit significant deficits in tasks that involve active manipulation, reorganization, or integration of the contents of working memory. This is a relevant cognitive aspect that requires to be understood when having older adults developing tasks and learning new vocabulary.

Finally, although older adults experiment deterioration of their senses, this does not affect the implementation of the multisensory approach for teaching vocabulary to this population since the multisensory approach has its basis in the multisensory stimulation therapy from the psychology field. Multisensory stimulation can enhance the condition of people with cognitive and physical impairments since it stimulates all their senses and inhibits their further deterioration. Some benefits of multisensory stimulation are: a) increase concentration and focus attention, b) develop or reactive senses of hearing, sight, smell, touch and taste, c) improve coordination and motor development, d) promote cognitive development by increasing brain functions, e) provide security, f) improve creativity, g) develop of language, and h) promote

social interactions, among others. Finally, multisensory stimulation prevents people from developing diseases as Alzheimer.

**2.3 Comprehensible Input**

It is necessary to establish the definition of comprehensible input and its applicability in the process of foreign language teaching to older adults. In this way, different authors who have contributed in this regard, such as Stephen Krashen, Thorsten Piske, and John W. Schwieter, will be mentioned.

### 2.3.1 Definition

According to Krashen's Comprehension Hypothesis (1985), comprehensible input is the language input that can be understood by students even if they do not recognize all the utterances. In other words, comprehensible input is the language input that is above the current students' stage of linguistic competence, but that still can be understood by students. Krashen (1985) states that when students are exposed to $i+1$ language input, they acquire language effortlessly and involuntarily. To illustrate, $i$ refers to the current level of language proficiency that learners use to make sense of the language input that is beyond their current language proficiency ($+1$). This theory presents some implications for language teachers: a) teachers should offer enriching language instruction (spoken and written) to students, and b) language instruction should be just above students' language proficiency.

**2.3.2 Circumstances for using comprehensible input with older adult students.**

Students' comprehension does not only depend on the vocabulary provided by the teacher, in fact, even if students understand all the vocabulary during an activity the meaning can remain incomprehensible to them (Piske, 2009). Therefore, comprehensible input requires the use of certain techniques.  Schwieter (2013) points out that presenting background information,

context, clarifying concepts, and implementing effective materials such as images, audios, and graphic organizers contribute to the understanding of content, especially in the case of older learners. Additionally, to provide an appropriate context, Schwieter (2013) mentions that teachers can be sensitive to the language and cultural background of students by giving instructions that are based on experiences, preferences, and concerns that are familiar to them. Also, in order to increase the possibilities of students' understanding, Schwieter (2013) suggests using consistent vocabulary, particularly during the first stages of the learning process. On the other hand, Piske (2009) states that teachers should consistently clarify ideas or concepts using slight variations in terminology and examples. By applying these techniques, students are able to comprehend aspects that are required for a greater understanding of general and specific ideas.

### 2.3.3 Points to consider when teaching older adults.

Teaching must be highly interactive. For this reason, teachers should create an environment in which students participate answering questions or sharing ideas and thoughts using the target language. At first, students might show resistance about being involved, but with the practice, they get used to participate. By encouraging older adult students to participate, teachers can ask them to share their experience about their language, culture or country (Bedoya, 2008). When opportunities for using the language are provided, opportunities for increasing receptive language abilities are given. Also, cooperative learning and peer tutoring strategies can offer positive effects on the rapid and effective development of the English language, specifically when working with cognitively challenging language concepts.

### 2.4 Vocabulary

Vocabulary learning is fundamental in any language since words construct mental lexicon and enable communication. As a result, it is necessary to highlight how relevant teaching

vocabulary is for both beginners and advanced learners and, in this case, older adults. Nation (2006) pointed out that learners of English as a Second Language (ESL) require around 6000-9000-word families to fully understand any written or spoken texts. Similarly, Sylanovva and Webb (2016) concluded that in order to reach a high proficiency level, high-frequency words have to guide vocabulary teaching practices according to its usage in context. In this sense, vocabulary teaching and learning success are attached to two main aspects: what words to teach and how to teach them.

**2.4.1 Vocabulary size: How many words a learner needs to know.**

Since native speakers acquire around 1000-word families every year until the age of 20 (Sylanovva and Webb, 2016), it is accurate to state that vocabulary learning in native and foreign languages is different from one another. While native speakers have to master vocabulary to accomplish daily interactional tasks, learners of a foreign language are not completely involved in situations that depend on authentic language usage. Therefore, teachers should analyze the most suitable vocabulary for students before designing their courses. A common inquiry at the time of teaching vocabulary is how many words learners need to know. Regarding this concern, Sylanovva and Webb (2016) estimate that a competent language user manages more than 1000-word families, and that high-frequency words should be the basis for learning programs. Likewise, Nation (2006) revealed that by knowing the first 1000-word families, it was possible to deeply comprehend written and spoken discourses because they embrace around the 83% of the vocabulary used during interactions. This insight highlights the importance of teaching high-frequency words to foster learners' vocabulary size, which is defined as the number of lexical units that a learner is capable of using.

Thornbury (2002) referred to vocabulary size in various forms according to lexicon depth. He considers that there is a daunting difference between L2 learners and native speakers' vocabulary size. While an educated L2 learner could learn around 5,000-word families after studying several years, a native speaker under the same conditions would have around 20,000-word families available to use. To exemplify this assumption, the author mentions that native speakers have already acquired 5.000 words at the age of five and they continue learning almost a thousand words every year. Thus, it is clear, as stated by Sylanovva and Webb (2016), how foreigners' vocabulary learning rates are slow and uneven; consequently, it becomes crucial to determine what the appropriate vocabulary range is for students, taking into account their proficiency level. Accordingly, Thornbury (2002) emphasizes on the importance of equipping learners with a vocabulary of 2000 high-frequency words since this vocabulary size would be enough to help them to know the meaning of nine out of ten words in almost all texts. The previously mentioned concepts support the idea that vocabulary teaching and learning core must be planned considering high-frequency words and students' purposes for learning them.

### 2.4.2 Strategies for teaching vocabulary

"Without grammar very little can be conveyed, without vocabulary nothing can be conveyed" (Thornbury, 2002 citing Wilkins, 1972. p.13). Learning new vocabulary is a challenging task for all language users, even for native speakers. The reason for this lays on the factors that conform the acquisition of new lexicon such as the exposure to language and comprehensible input. It is, then, teachers' role to apply appropriate strategies while taking into account which are the processes involved in vocabulary learning. According to Thornbury (2002), the main purpose of the strategies is to get students to use words for tasks completion and also to create self-directed learners. The author is emphatic on the fact that teachers are unable to

literally teach words to students; instead, they can only present or explain lexical items while motivating learners; nevertheless, it is exclusively learners' responsibility to acquire and use words appropriately.

By considering the previous insight, he proposed several useful strategies to foster autonomy in vocabulary learners. The first of them is decision-making tasks, and its objective is to place words into learners' long-term memory by using them in cognitively demanding tasks, which the author divided into identifying, selecting, matching, sorting, ranking, and sequencing. Furthermore, the author explained that when teachers elicit information related to vocabulary, using this strategy, learners are able to recall words easily in different contexts according to the tasks' specifications. It is then when decision making takes place since learners have to identify the task purpose before recalling the needed lexical units. On the other hand, production tasks involve learners to not only make judgments about what vocabulary should be used, but also to produce it in writing or speaking activities. A clear example of production tasks are activities such as gap-fills or texts creation; while in the first one learners have to correctly write words in the signaled gaps, texts creation tasks get students to create contexts for a list of words through written or oral performance. Given this reason, the latter tasks' type requires intermediate or advanced language users to be successfully applied.

Other authors have proposed their own set of strategies for improving vocabulary learning; for instance, Sylanovva and Webb (2016) recognized the value of extra-curricular activities and its impact on vocabulary learning. They address two main concerns that hinder new words internalization: lack of class interaction and insufficient language input. By taking into account those obstacles for vocabulary development, they proposed extensive reading and extensive viewing as strategies to cope with limitations in terms of time and input. Extensive

reading is to purposefully use long texts as the main source of input to approach different words

in context. Moreover, the authors suggest using long texts since learners are more likely to

encounter the same lexical units frequently; thus, facilitating the learning process by allowing

students to understand how the words are used. In a further matter, an important factor to

consider when applying extensive reading strategies is engagement because students are

responsible for selecting what they desire to read with the support of their teachers. In this sense,

reading becomes an enjoyable and motivating activity for students that usually leads to

vocabulary learning.

Meanwhile, extensive viewing is useful to increase learners' exposure to authentic

language through multimodal input (aural, visual) in movies, TV shows or videos. Sylanovva

and Webb (2016) remarked how convenient this strategy is nowadays due to the fact that

learners can access all kind of authentic materials effortlessly, and also, they are able to select

what input is more engaging according to their personal preferences. Finally, extensive viewing

develops in learners listening skills and strategies to analyze the meaning of words based on the

frequency of usage and contextual cues. A positive aspect of both strategies is that they foster

vocabulary, reading, and listening skills regardless of learners' proficiency level, which proves

their practicality inside and outside the classroom.

## 2.5 Multisensory approach

The multisensory approach, "also known as VAKT (visual-auditory-kinesthetic

tactile) implies that students learn best when information is presented in different

modalities (Mercer & Mercer, 1993)" (as cited in Murphy, 1997, p. 1). According to Moustafa

(1999), the multisensory approach is one that integrates sensory activities like tracing, hearing,

writing, and seeing represent the four modalities (Murphy, 1997). For example, to teach spelling,

Graham and Freeman (1986) use a strategy that incorporates the four modalities, which consists on students saying the word, writing the word, checking the word, tracing the word, writing the word from memory and checking, and then repeating the entire process (as cited in Murphy, 1986).

Considering the natural physical and mental deterioration linked to the aging process, active work and stimulation of senses is an important endeavor to delay the decline of older adult´s abilities. According to Bento-Torres, De Oliveira, Dias de Macedo, Picanço-Diniz, and Soares (2015), there is evidence of plasticity still in the aging brain and such cognitive deterioration may be slowed through stimulation. In addition, as stated by Dickinson (2002), new neural connections in the human brain continue to form throughout life, and these structural and functional changes are the result of learning and experience. Moreover, the stimulus received through experience represents an important contribution to enhance the brain's capacity. In this regard, the implementation of multisensory approaches represent an alternative strategy for students with learning differences, such as the older population.

It must be clarified that this study does not contemplate the kinesthetic modality, instead, it integrates the senses of taste and smell since it was the aim of this study to involve the use of the five senses. In other words, the multisensory approach implemented in this research study involves the use of activities that stimulate the senses of vision, hearing, taste, smell, and touch. In addition, it must be said that there were not found studies that investigate the use of the sense of smell, in the way that is intended to be stimulated, within the classroom; therefore, these senses will not be addressed in the following paragraphs. The definition and examples of how to use four of the five senses in a classroom will be provided.

**2.5.1 Sight**

According to VAKT theorists, students with a preference towards the visual stimulus respond better to materials such as pictures, videos, painting, and drawings in the learning process. Hence, either input or output that stimulates or requires students to make use of their sight, contributes accomplishing their learning needs. As an example of this, Mona Brookes (1986), founder of the Monart Drawing Schools, explained how the implementation of the Monart Method, intended to help students to transform information received into drawing, has enabled learners to use different learning modalities, and that teachers implementing her method recognize an improvement in students' reading comprehension. On the other hand, articles concerned with third age health, agree that among the main causes of sensory deprivation is aging, and that the sense of sight is former on the rate of sensory reduction and loss.

**2.5.2 Hearing**

Similar to the visual, the auditory modality is one of the most common learning channels. Students who acquire information from this learning style require listening input such as music, recordings or dialogues for more effective processes. In this regard, an important study developed by Rauscher et.al (1994) reports a correlation between music and spatial reasoning and how music can be implemented to develop high order cognitive skills. Additionally, researchers have examined and evaluated the benefits that music programs have in the improvement of creativity, memory and their impact on older adult's lifestyles in the field of older adult education.

**2.5.3 Touch**

The tactile learning is related to hands-on activities; tactile learners benefit from strategies that include using finger paints, manipulating, texturing and sculpting materials. Most

authors relate this learning style with the kinesthetic one; however, a differentiation must be established since the tactile modality is concerned with touching and the sense of feeling, while Kinesthetic specifically refers to body movement. Regarding older adult population, attention needs to be brought when it comes to the application of strategies involving the use of hands, highlighting diseases such as Parkinson's, being a disorder of the nervous system that affects movement. According to the article *Sensory Deprivation among Older Adults (2014)*, the most frequent problem connected to the sense of touch in the third age is Peripheral Neuropathy, which reduces the ability to perform finer sensorimotor tasks. Thus, this nerve affection can interfere with the development of learning based on the sense of touch which leads to a current need for further investigation regarding the implementation of the tactile learning modality with older adults.

### 2.5.4 Taste

The sense of taste refers to the flavors that can be perceived in any kind of food. In this regard, significant contributions were provided in the study called Interactive *Taste Tests Enhance Student Learning conducted* by Soh et. al (2015), in which 46 students participated in 15 minutes of taste modules after being part of 3 hours of lectures and 2 hours of lab section, every week. For instance, Soh et. al (2015) found out that the food has the potential of facilitating the linking process between formal scientific concepts, and students' daily life experiences. The study of Soh et.al (2015) suggests that the sense of taste provoke beneficial outcomes in the way in which students learn science in terms of cognition. Furthermore, the authors of this study mentioned that similar studies can be conducted in any other classes.

To conclude, andragogy, older adult learning, comprehensible input, vocabulary, and multisensory approaches are essential concepts that work in conjunction in the development of

this research project, which is aimed to implement the multisensory approach to teach English

vocabulary to older adults. In this way, andragogy is considered the most suitable theory to guide

the implementation of the multisensory approach as an alternative strategy that helps to decrease

older adult's senses deterioration. Additionally, the multisensory approach addresses learners'

different learning styles while contributing to the development of a foreign language. Moreover,

older adult learning explains the physical and cognitive factors affecting older adult learning

processes. Besides, comprehensible input highlights the importance of learners' comprehension

of what they are being taught in order to learn successfully. Lastly, vocabulary is explained as

the mean of understanding a foreign language since without it meaning can not be conveyed.

## 3. Literature Review

Aging is the biological process by which human beings must go through from the very moment of birth. This progressive set of morphological and physiological changes occur over time, and it implies a gradual deterioration of organs and their functions. However, despite the common belief, getting to the old age does not mean that older people become unable to learn. Common social beliefs as "old dogs never learn new tricks" promote the misconception of older adults as less successful learners than younger people. Accordingly, Ekotto and Gaikwad (2015) remark the current need for a richer perspective of educational practices addressing adult learning needs and obstacles, which demands the application of innovative strategies to teach this population appropriately; thus, it is imperative to analyze relevant studies in order to guide this research about how to teach vocabulary to older people. In this sense, three pieces of research involving the older adult population and two studies regarding the implementation of the multisensory approach to teach EFL will be reviewed.

To start with, Chang (2013) postulates the characteristics that contributed to the evolution of adult education from 1950 to 2000. The second article resembles García and Muñoz (2015) research findings related to some of the aspects involved in the adult meaningful learning of EFL. Additionally, Cassell (2011) carried out her study on the factors that influence third age adult English language learning. Moreover, Gorjian, Hayati, and Barazandeh (2012) inquired about the influence of the multisensory approach on the acquisition of vocabulary. Similarly, Jubran (2011) investigated the impact of the multisensory approach on learners' English achievement. These researches integrate aspects about adult learning and provide insights about the multisensory approach as an innovative strategy for teaching English. Cassell (2011), Chang (2013), and García and Muñoz (2015) provide fruitful perspectives about the teaching to older

adults, while Jubran (2011), and Gorjian, Hayati, and Barazandeh (2012) support the benefits of the implementation of the multisensory approach in the EFL field.

Initially, Chang (2013) carried out the study *Shift of Adult Education Research a descriptive analysis of the evolution of adult learning since 1950's to 2000's.* The purpose of this research was to analyze literature related to adult education. The research questions used in order to guide the study were a) what are the main features of adult education research?, and b) what are the main features of adult education research methods? According to the findings made by Chang (2013), there was a shift in terms of the focus of adult education. Firstly, from a descriptive reflection of practical experience and borrowing theories from other fields, to starting building its own philosophical and theoretical foundations and professionalizing the field; secondly, from one positivist perspective and quantitative methods, to multiple perspectives and qualitative methods; thirdly, from individual growth and psychological development, to social and political integration.

Additionally, it was evidenced that the modifications of adult education theorization were determined by the change of social needs through time and some internal and external social forces. Moreover, the role of adult education changed from a perspective of adults being trained to learn and solve practical problems to a view of adults as social actors, who are concerned about social issues to come up with solutions and improve the society. Another important finding is that adult education research has always been aimed to meet the society's needs. To sum up, Chang (2013) found that perspectives, dynamics, and methods on adult learning have greatly changed from 1950s to 2000s, and that social changes have an impact on the focus of adult learning.

In a similar study involving society, Cassell (2011) evidenced the social impact that teaching English to the older adult population had regarding motivation, learning supports, learning barriers, and older adult students' program change recommendations; thus, Cassell (2011) involves two of the main constructs that the present research is focused on: older adult learners and teaching English. In the study, called *Third age adult English Language Learners in non-formal library settings in Florida,* were established three questions in order to its development: a) what motivates third age learners before and while attending the library's ESOL classes?, b) what supporting factors do third age ELLs experience in ESOL library learning environment?, and c) what barriers to learning and attending do third age ELLs experience in the library's ESOL classes? Moreover, this research carried out in Florida, United States, involved 10 teachers and 11 older adult learners who were selected based on their ethnicity. Furthermore, the data collection methods implemented by Cassell (2011) were in-depth and open-ended interviews, made to the 21 participants, as well as observations and essays.

Besides, document analysis was used in order to confirm the study's findings, which revealed that second language learning success is influenced by self-directed learning strategies. This means that adult learners are mature enough to be autonomous in their learning that involves being ready to learn, setting learning goals, engaging in the learning process, and evaluating learning, and this helps them to improve their proficiency level. Additionally, Cassell (2011) found that language skills development is affected by the lack of English practice. Also, the author determined that in order to improve learners' language performance, adjustments in terms of number of classes, tutoring, language labs, study skills classes and classroom management training were needed. Finally, the author states that learning a language has social

interactional purposes, and that the need and benefits of having a good L2 proficiency promotes motivation.

Similarly, Muñoz and García (2015) support the idea that motivation is a key factor that should be taken into account when planning a class for older adult people. Muñoz and García's (2015) project, called "*Aprendizaje significativo del inglés en la edad adulta*", was aimed to explore the under-researched area of the EFL teaching to adult learners in order to contribute to the existent literature, reinforce the current theories and help new projects by providing a basis for further investigations. In this respect, from an andragogical perspective, the authors analyzed the different ways adults over 40 years learn EFL in the "Fundación Alianza Social Educativa" (ASE), which is a non-profit independent organization located in Bogotá, Colombia, that offers educational programs like teaching English to the adult population. However, lack of a appropriate curriculum for this population was evidenced, mainly in relation to specific strategies that fulfill this population's academic needs; therefore, it was necessary to implement a research to gain a better understanding of adults EFL learning process.

The research project was oriented in the qualitative descriptive methodological approach. Through classroom observations, the researchers developed a deliberate random sample in order to identify the educational needs of ten students over 40 years, who completed a Basic English level. An observation grid and a survey were applied in order to collect data. Moreover, the opinions of the participants were collected by using five questions with multiple choice and six open questions, which inquired about their interests and educational needs in relation to EFL; however, the questions are not explicitly stated in the research. A triangulation was made and categorized allowing the establishment of different adult educational needs. As a result, the authors found the existence of four main aspects to take into account when planning a class for

adults over 40 years: motivation, real contexts of learning, scaffolding, and favorable learning environments.

In other words, Muñoz and García (2015) found that teachers should reflect upon teaching strategies that contribute to meaningful learning since older adult people need to recognize that what they are learning is valuable for their daily life. Also, the author suggested that adult learners need to be provided values and attitudes that favor autonomy and self-assessment of the teaching and learning processes. Taking into account the lack of information about the educational necessities of older adult people, Muñoz and García (2015) contributed with valuable information for EFL teachers to guide their classes based on andragogical principles.

Another important concept in this study is the multisensory approach; for instance, Jubran (2011) developed a research in which he provides an insight of the benefits of using the multisensory approach as an alternative to teach EFL. The author conducted the study called *using multisensory approach for teaching English skills and its effect on students' achievement at Jordanian schools* with the objective of evaluating the impact of a multisensory approach on the learners' engagement and achievement in English. Jubran (2011) formulated one relevant question to guide his research: are there any statistically significant differences in learners' performance in English due to the teaching strategy they are exposed to (multisensory approach vs traditional way)? The participants of this study were 122 tenth graders, 57 male and 65 female from two different high schools (one female school and one male school). The participants were divided into experimental group, who were taught English using multisensory approach, and control group, who were taught English through traditional methods.

Furthermore, pre and post-tests were used as instruments to collect information about students' achievement in English, which were analyzed through descriptive statistical analyses. Jubran (2011) came up with important findings. Firstly, the findings showed that the experimental group had better English achievement than the control group thanks to the implementation of multisensory approach. Secondly, the author evidenced that the experimental group significantly increased their English vocabulary. Thirdly, Jubran (2011) discovered that when students are given the opportunity to use all their senses, they are more engaged in their learning. Finally, the author concludes stating that the multisensory approach is a powerful tool for students to learn English entertainingly.

In a related study involving the multisensory approach, Gorjian, Hayati, and Barazandeh (2012) conducted the research called *an evaluation of the effects of art on vocabulary learning through multi-sensory approach*, in which they aimed to investigate the effects of art on vocabulary acquisition by implementing the multisensory approach. The participants were 56 EFL beginner learners from a primary public school and a private language institute. Their ages were ranged from 8 to 12. Moreover, the participants were randomly divided into a) experimental group, who were taught through multisensory approach, and b) control group, who were taught through traditional methods. The data collection methods were vocabulary pre- and post-tests, which were designed by the researchers and that included 14 items for assessing learners' vocabulary achievement. The research was conducted in Bandar Imam Khomeini, Iran, and it was carried out for three months. After analyzing the data gathered, the researchers found that using multisensory techniques is effective for teaching vocabulary to EFL beginner learners.

Additionally, a relationship between teaching English through the multisensory approach and learners' language development was evidenced. Also, Gorjian, Hayati, and Barazandeh

(2012) identified that it is beneficial to use visual arts for students' language learning development. Moreover, the author evidenced that kinetic movement supports students in understanding the meaning of words. Finally, it the authors observed that teaching something abstract as language through something concrete as art, encouraged students to link their own experiences. It is important to highlight the fact that the researches carried out by Jubran (2011) and Gorjian, Hayati, and Barazandeh (2012) involve as participants children and adolescent population; therefore, the need to explore the impact of multisensory approach on older adult vocabulary learning is evident.

To conclude, these studies contribute to this project by providing insights about adult learning. Firstly, Chang (2013) and Cassell (2011) support the idea that society has a fundamental role in adult learning. Chang (2013) found that the change of social needs has determined the focus of adult learning theorization throughout time because depending on society's needs, adults are taught to meet these needs and help the to improve society; additionally, adults are seen as important social actors. Regarding this concern, Cassell (2011) stated that learning a language is beneficial for adults to enhance their interaction with other people that speak English; therefore, in this case, language learning has social interactional purposes.

Secondly, Cassell (2011) and Muñóz and García (2015) agree on the fact that motivation is a key element in adult learning. For example, Cassell (2011) investigated what factors motivate third age adults and she found that awareness of the need and benefits of having a good proficiency in English increase their motivation to learn. Alike, Muñoz and García (2015) pointed out that when teachers contribute to meaningful learning, adult learners recognize that what they are learning is valuable for their daily lives, which increases their motivation to learn.

It can be concluded that Chang (2013), Cassell (2011), and Muñóz y García (2015) support andragogy as the most appropriate set of principles and strategies for approaching adult learning since children learning (pedagogy) is different from adult learning. On the other hand, the studies conducted by Jubran (2011) and Gorjian, Hayati, and Barazandeh (2012) contribute to this project in terms of providing valuable information about the benefits of the multisensory approach in a younger population.

Firstly, Jubran (2011) and Gorjian, Hayati, and Barazandeh (2012) defend the idea that the multisensory approach is effective and beneficial for students to increase their vocabulary acquisition. For instance, Jubran (2011) found that that the experimental group, who was taught through a multisensory approach, improved significantly their English vocabulary. Similarly, Gorjian, Hayati, and Barazandeh (2012) discovered that using multisensory techniques is effective for teaching vocabulary to EFL beginner learners. Secondly, Jubran (2011) and Gorjian, Hayati, and Barazandeh (2012) agreed on the fact that the multisensory approach help students to enhance their overall English proficiency level. For example, Jubran (2011) found that the experimental group had better English achievement than the control group. Correspondingly, Gorjian, Hayati, and Barazandeh (2012) evidenced a relationship between teaching English through the multisensory approach and learners' language development.

It must be mention that there are some weaknesses presented in the previous articles. For instance, the lack of studies articulating the teaching of vocabulary through the multisensory approach to older adults. Also, the lack of studies on methodologies to teach third age adults. Additionally, the fact that four of the researches included were conducted in countries different from Colombia is considered as another drawback. Nevertheless, these weaknesses make this research more innovative since it is aimed to fill these gaps. Finally, to summarize, the studies

included in this literature review have contributed to the construction of the bases for teaching

vocabulary to older adults through the multisensory approach in the sense that they provide

important insights of the basic concepts related to this research; additionally, they take into

consideration the special characteristics of adult learning and the benefits of using the

multisensory approach in teaching-learning processes. Additionally, having clear several

authors' insights about adult education and the multisensory approach, provides a path to follow

during the implementation of English vocabulary teaching to older adult learners through the

multisensory approach in the Colombian context.

## 4. Methodology

The following section describes all the information that was taken into account to implement this study. Firstly, the nature of this research will be explained in terms of the type of study and type of research. Moreover, important facts regarding the current situation of older adults in Colombia will be presented along with the description of the context and participants of this research. Additionally, the role that the participants played in this study will be addressed. Finally, the methods to collect the data will be presented and explained.

### 4.1 Type of study

The nature of this research study is framed as a qualitative research, which according to Merriam (1998) focuses on process, understanding, and meaning. In addition, the researcher is the primary instrument of data collection and analysis, the process is inductive, and the product is richly descriptive. Therefore, in order to conduct a qualitative study, researchers should be interested in understanding the way people interpret their experiences in regard to a specific case that occurs in a particular location; thus, adopting different procedures to collect evidence based on the perceptions of the population involved. All of these characteristics are integrated to collect data, which is analyzed and interpreted by the researcher, who expands the understanding of the data in a descriptive way rather than employing statistical procedures.

As pointed out by Denzin and Lincoln (2005), "qualitative researchers study things in their natural settings, attempting to make sense of, or interpret, phenomena in terms of the meanings people bring to them" (p. 3). For instance, in this study, the researchers sought to understand events, reactions and attitudes that occurred when teaching English vocabulary to four older adults who lived in Casa Santa María nursing home. In this sense, the analysis of the

events and the results are based on the researchers and older adults' perceptions, which are as descriptive as possible, framing this as a qualitative case study.

## 4.2 Type of research

This project is a case study research, which according to Gerring (2007) is an "intensive study of a single unit wherever the aim is to shed light on a question pertaining to a broader class of units" (p.23). In this regard, the researchers conducted this study with a small group of four older adults and the analysis of the results offered valuable data that can be applied to a larger third age population. Considering the general purpose of this study, the specific type of case study is descriptive. According to Yin (2003), a descriptive case study is defined as the "description of an intervention or phenomenon and the real-life context in which it occurred". For instance, the population involved in this study was analyzed intensively during the implementation stage with the aim of spotting the specific factors that affect their English vocabulary learning process.

## 4.3 Context

This study was carried out in Risaralda, Colombia, which is located in the Andean region. Specifically, this project was conducted in Risaralda's capital city, Pereira. Before addressing the local factors concerning older adult education and lifestyle, it is crucial to describe first the general circumstances related to this population in Colombia. According to the law statute 1276 of 2009, Colombian citizens become third-age adults after turning 60 years old. Regarding this concern, the Departamento Administrativo Nacional de Estadística (DANE) established that almost the six percent of Colombians are older adults, which means that 2´612.508 Colombians are 60 years old or older.

In addition, it is important to remark that, in Colombia, the older adult growth rate is currently at 4% while general population rate is only at 1.9% per year. This means that by 2050 more than 20% of the Colombian population will be 60 years old or older, which is a high amount. By taking into account these statistics, the Colombian government has created several national policies aimed to improve third-age adults' life conditions. The most representative of them is "Colombia Mayor", and it aims to improve older adult population's living conditions, through which the Colombian Government attempts to provide integral support to third age adults. Moreover, the law statute 1850 of 2017 establishes legal protection for the older adult population such as the penalization of interfamily abuse and abandonment, which demonstrates important advances towards the enhancement of third age adults' life quality.

Regarding the situation of older adults in Pereira, there are almost 70.000 older adults, of who only 10.500 are actually receiving subsidies from the national program "Colombia Mayor". In addition, there are 46 older adults' protection centers and nursing homes, and seven Centros de Bienestar del Anciano (CBA), which are supported by the city hall. The administrative functionaries receive a monthly subsidy of $650.000 for every older adult in the CBA, which designated to cover the older adults' medical expenses. Even though these programs and laws were created for the protection and recreation of the older adult population, they do not take into account education as a relevant factor to address.

Education should be an integral part of these programs, projects, and laws, and it should be based on the current needs of Colombian society, which embraces bilingualism. Accordingly, the Pereiran government should promote innovative programs with the objective of engaging older adults in the EFL learning. In order to make an impact on this particular population, students from the program Bachelor in Bilingualism developing this study strived to positively

affect older adults' education by teaching English vocabulary using the multisensory approach and andragogical principles. This project was implemented in Casa Santa Maria nursing home.

## 4.4. Setting: Casa Santa María

Casa Santa Maria is a private nursing home, where 120 older adults live. It is economically supported by older adults' relatives. The nursing home has a common hall with chairs and tables, which is appropriate for conducting the lessons. Furthermore, older adults are involved in recreational activities and social work with the community and students from some institutions, but they have not had exposure to the English language throughout their lives. Therefore, the researchers developing this project taught English vocabulary to this population.

## 4.5 Participants: Casa Santa María

This project directly impacted two populations, who benefited from the outcomes obtained from the research and its implementation. Firstly, the learners, who are older adults living in the nursing home "Casa Santa María". Secondly, the researchers, who are three students of the Licenciatura en Bilingüismo, from Universidad Tecnológica de Pereira. The third age adult learners who participated in this study are four women who are above 60 years old. They have had little exposure to the English language; however, they are literate. The participants do not present important health problems, just one has difficulty to move. During the implementations, the researchers recognized taste and smell deterioration in two participants; however, this did not affect their English vocabulary learning.

## 4.6 Role of the researchers

The researchers are two men and one woman, who belong to the Licenciatura en Bilingüismo program of the Universidad Tecnológica de Pereira. In order to carry out this research project successfully, the researchers performed several roles. To begin with, the

researchers acted as designers since they created lesson plans in which they integrated the

andragogical principles with the multisensory approach. Also, the researchers were

implementers, who analyzed the lesson plans and implemented them, not only by sticking to the

lesson plans, but also by adapting them depending on the situation. Furthermore, the researchers

were observers of the classes in order to collect essential data to reflect and make decisions upon

it. In addition, researchers considered the four stages stated by Howell (1972), which are a)

establishing rapport or getting to know the people, b) immersing oneself in the field, b) recording

data and observations, and d) consolidating the information gathered. Finally, it must be

mentioned that the role of each researcher varied during each session; To exemplify, during

implementation X, researcher A performed as a designer; during implementation Y, researcher A

performed as an implementer; and during implementation Z, researcher A performed as an

observer.

## 4.7 Data collection methods

### 4.7.1 Interviews

Regardless of the great influence that researchers had over the project's implementation

and outcomes, participants also play a major role in any research project since their conditions

influence the researches and teaching practices. For that reason, it was crucial to collect and

interpret their perceptions, behaviors and attitudes towards the principles and the approach that

were implemented. Accordingly, the participants expressed their personal thoughts and opinions

freely through a semi-structured interview. Merriam (1998) defines semi-structured interviews as

those that contain a balanced amount of close-ended and open-ended questions. These interviews

offer a wider range for the formulation of questions within this research, which enriches the

possible answers provided by the older adult population in the nursing homes. In the following

paragraph, aspects regarding the use of interviews, specifically related to this research project

will be addressed in detail.

Flipp and Pollien (2011) state that there is strong evidence supporting the assumption of

how interviewers' behavior influences their respondents' truthfulness and willingness to answer

questions. Therefore, the interviewers' role within this research was to inquire accurate concerns

as well as to create an appropriate rapport with the older adult respondents. In addition, the

authors also suggest to perform two interviews, which are conducted at the beginning and the

end of the implementation in order to identify participants' perceptions changes towards the

research project practices. These perceptions are related to older adults' motivation to learn, and

perceptions towards the activities implemented and vocabulary taught. Finally, it is important to

highlight that the researchers conducted one interview at the beginning of the implementations,

to gather information about the participants' interests, and one at the end of the implementations

to gather data regarding the participants' experience being taught through the multisensory

approach and the andragogical principles.

### 4.7.2 Journal

Merriam (2009) points out that the researcher is the main responsible for collecting data

based on the observations and implementations. In this sense, researchers require the most

appropriate method to collect details concerning the project in order to enhance their decisions,

analysis and outcomes. Wherefore, journals are an ideal method as they allow the simultaneous

observation, collection and interpretation of data retrieved from the researchers' immediate

experience. According to Bonilla and Rodriguez (1997), journals enrich research practices

through the recording of a vast quantity of experiences within the project; thus, it constantly

supports the collection of data and its relentless organization. Finally, the journal can not be

limited to a certain criteria since it portrays direct experience that otherwise would be

unrecognized, which demonstrates its value on research practices.

As an instrument that allows to organize, monitor and analyze specific non-quantitative

aspects of any study, journals enrich teaching and learning practices. Regarding this specific

project, journals implementation enabled the interpretation of andragogical principles based on

older adult behaviors, aptitudes and attitudes towards English vocabulary learning. Besides, this

method helped the researchers to follow the participants' response to the multisensory approach

in terms of their learning process. Accordingly, it is important to remark that since this project

aims to embrace complex phenomena such as older adult specificities within foreign language

learning, practitioners and older adult students' behaviors were recorded and considered, for

which journals are one of the most appropriate methods to apply. Finally, the implementer was

the responsible for recording the senior citizens' responses towards the project throughout the 10

lessons. In addition to that, the journals have as main priority to collect information about

language usage, vocabulary learning, senior citizens' production, motivation and psychological

aspects; such information was useful to analyze the project attempted purpose, finding and

contribution to the field.

### 4.7.3 Observation

One of the most common instruments for collecting data is called "observations".

Observations, as a data collection method, is characterized by taking place in the actual spot in

which the phenomenon of interest is occurring. For this reason, data represents firsthand

encounter with the occurrence that is being analyzed. In addition, conducting observations can

provide both qualitative (narratives) and quantitative data (length of interactions or number of

questions); however, when there is lack of practice, observations can fall into researchers'

subjectivity. Therefore, as Merriam (1998) pointed out, "conducting observations is a deliberative process and not an unpremeditated action; consequently, observing is a skill that can be learned through practice". In order to practice, common activities such as watching films, being and observer in public places or even at University, represent useful strategies to practice in case they are done consciously. Also, according to Merriam (2016), the *what* and *who* to observe depends on the purpose, problem, and question of interest of the study. To conclude, considering Merriam (2016), it is important to highlight that observations allow the researcher to record data as it is occurring, it can be used to have a record of the context or specific incidents, and it guarantees (together with film material) an objective and fresh perspective of events.

Finally, the researchers observed the senior citizens throughout the 10 implementation lessons having as the main objective to collect data about their learning process, and how the andragogical principles and the multisensory approach impact it.

**4.8 Instructional Design**

The purpose of the lessons conducted in Casa Santa María Nursing home was that the older adult participants learn some words in English in an entertaining way. In this way, the learners were expected to learn most of the vocabulary taught during the classes and be able to recognize the objects using their senses; for example, touching a banana and name it in English. Furthermore, the lessons were planned following three main stages: presentation, practice, and production. First, each lesson started with a warming up activity for the participants to activate their previous knowledge, and then the implementer presented the vocabulary to be taught. Additionally, there were 2 or 3 activities for the participants to practice the new vocabulary and finally, an activity to assess if they learned the vocabulary was carried out. It must be said that during the planning of the lessons, the andragogical principles were taken into account; for

instance, in each lesson, the researchers proposed activities in which they had to use the experience acquired through their lives.

On the other hand, the materials used were selected according to the senses stimulated in the lesson; for example:

- Touch: Fruits.

- Vision: Images.

- Hearing: Audios.

- Smell: Cleaning items.

- Taste: Food.

These materials were used for three purposes: presenting, practicing and reinforcing the vocabulary. Finally, the learners were assessed in a formative way. *See appendix 1.*

**4.9 Data analysis**

In agreement with the type of study corresponding to this research (qualitative), grounded theory has been selected as the most suitable method of data analysis. According to Noble and Mitchell (2016), grounded theory is "a research method concerned with the generation of theory, which is 'grounded' on data that has been systematically collected and analyzed" (p.34). In order to build a grounded theory, data must be collected in the natural setting using methods such as the ones used in this study, interview and observation. Grounded theory was proposed by Glaser and Strauss (1967) and they stated that data analysis and coding need to be combined in order to build grounded theory since is this what allows the researcher to have the information collected organized and to have well-structured and strong arguments when writing the findings. Glaser and Strauss (1967) called the combination of these elements: The Constant Comparative Method of Qualitative Analysis, which involve four stages: 1) comparing incidents applicable to each

category, 2) integrating categories and their properties, 3) delimiting the theory, and 4) writing

the theory.

1. *Comparing incidents applicable to each category*: The data collected was classified into

   different categories depending on the information that was founded, and then more

   related information was added in existing categories (Glaser and Strauss, 1967).

2. *Integrating categories and their properties:* The constant comparison and analysis of

   incidents with properties of categories provoked the integration of categories and its

   properties which allowed the development of the theory (Glaser and Strauss, 1967).

3. *Delimiting the theory:* As the theory became more solid, minor changes such as reducing

   information, removing non-relevant information, and interrelating categories were made

   (Glaser and Strauss, 1967).

4. *Writing theory:* When the theory was systematic, consistent and rich enough, the results

   could be shared within the community with the confidence of having come up with

   appropriate findings and conclusions related to the implementation of the multisensory

   approach for teaching vocabulary to older adults.

In order to be efficient and facilitate the process of analyzing the data collected, in this

study, the journals, observations, and artifacts were coded as follows:

**-Journals:** J1;LF;29/09/2018→ "J" refers to Journal and the number that follows the J is the

number of the journal. "LF" are the initial letters of the names of the researcher. Additionally,

"29/09/2018" is the date in which the journal was written.

**- Observations:** O1;LF;29/09/2018→ "O" refers to Observation and the number that follows the

O is the number of the observation. "LF" are the initial letters of the names of the researcher.

Additionally, "29/09/2018" is the date in which the journal was written.

**- Artifacts:** There are three types: a) videos, b) images and c) recordings.

a. A-V1; 29/09/2018→ "A" means artifact. "V" means video and the number that follows is the number of the video (in chronological order). 29/09/2018 is the date in which it was recorded.

b. A-I1;29/09/2018→ "A" means artifact. "I" means image and the number that follows is the number of the image (in chronological order). 29/09/2018 is the date in which it was taken.

c. A-R1;29/09/2018→ "A" means artifact. "R" means recording and the number that follows is the number of the recording (in chronological order). 29/09/2018 is the date in which it was recorded.

On the other hand, the process of collecting data was carried out during three different time lapses of the research. In order to begin with the implementations, it was first necessary to gather information about participants' educational background, personal information, and interests through an interview to each participant. Also, along each implementation, the researchers conducted observations, and after the sessions they wrote their reflection on journals. At the end of the implementations, interviews addressing the participants' insights about the lessons were made. Finally, backups of the interviews and study sessions were recorded in order to have them as evidence of the process.

**4.10 Ethical considerations**

This chapter aims to present the ethical considerations this project has taken into account for the project to be designed and implemented successfully with the third age population. Lankshear and Knobel (2004) propose seven important ethical principles researchers must respect: a) valid research design, b) obtaining informed consent, c) avoiding deception, d) minimizing intrusion, e) ensuring confidentiality, f) minimizing risk of harm, and g)

demonstrating respect. The researchers of this project must respect these ethical principles in order to protect the human dignity of the participants of this research.

### 4.10.1 Valid Research design

To support the validity and reliability of the project and the findings, the structure and design have planned in advanced based on well-known theory and literature which is relevant for the project's aim. For instance, the theory of andragogy has been taken as the basis to design the lessons and the multisensory tasks of the study; therefore, the formats for the data collection instruments and the lesson plans to develop the activities are intended to collect trustworthy information that contribute to the research inquiries. In addition to the well-known theory and literature taken into account for the study, the instruments implemented (surveys, interviews and journals) have the purpose of collecting data regarding learners' perceptions of the lessons, academic previous knowledge, social backgrounds, experiences and development during the participation of the lessons. The data collected by every instrument was triangulated in order to provide concise and valid results.

### 4.10.2 Obtain informed consent

It is the researchers' responsibility to preserve the dignity and integrity of the participants; therefore, the older adult participants were informed about the project, its aim, and the role they play on it. After explaining the participants, they were able to give the permission for the researchers to deal with the information collected in a responsible way. A consent letter was designed for the older adults to give explicit permission

### 4.10.3 Avoid deception

It is important to mention that the honesty and objectivity of the researchers have an important impact on students' performance and research development. For this reason, the

researchers made participants aware of the real purpose and conditions of the study, avoiding in this way deception in the participants. As previously mentioned, the participants were informed about the aim of the project, in this way they knew that they were going to learn English through tasks in which they use their senses. This information guaranteed that learners know their actual role during the classes and the real objectives of the research study, striving to mitigate and delete deception.

### 4.10.4 Minimize intrusion

Avoiding intrusion is not possible when conducting a research with humans; however, it is the researchers' duty to diminish intrusion and maintain participants' privacy and integrity. The interviews made to the participants were designed in order to just elicit information that was relevant for the project. Moreover, the co-researchers avoided inquiring on private aspects such as family background that may affect the participants' emotional state.

### 4.10.5 Ensure confidentiality

In order to collect information and validate authenticity of the implementation of the project, materials such as videos, photographs, descriptions, and physical productions of the participants were collected. Thus, through the consent letter provided, the older adults were asked for permission to use the information and show the evidences of the project. Also, the names of the participants were replaced by pseudonyms to protect confidential data, so that participants' identity and privacy be respected and treated worthily.

### 4.10.6 Minimize risk of harm and demonstrate respect

It is important to maintain a respectful relation between researchers and participants; therefore, the relationship between researchers and participants must maintain professionally. Additionally, there should be balance and respect in terms of what researchers actually require

and what participants feel (family death, and illness). Also, the researchers, or co-researchers should be aware about the fact that the project must not have any negative impact on the participants. To conclude, the information of the participants must maintain reserved for aspects that only concern to the research.

## 5. Findings and discussions

**5.1 The role of self-directed learning strategies in facilitating or limiting older adults' English vocabulary learning success**

Bearing in mind the set of five assumptions that embrace the concept of andragogy proposed by Knowles (1980; 1984), the principal objective of conducting a language class to adults is to facilitate the language learning process while taking into account that they are characterized by being self-directed. Self-direction allows adults to take an active role, this means that they take the initiative in activities and doing extra work in their own learning; additionally, older adults bring a wide experience to the classroom, they come prepared and ready to learn, they look for practical problem-centered approaches to learn, and they are best motivated by internal factors. These characteristics, especially self-direction features were evidenced during the implementation of the English classes in the Hogar Casa Santa María. In this finding, the concepts of *autonomy* and *self-direction* are used in the same way.

The main goal of any class is that students acquire the knowledge and skills established in the objectives of the class. In order to achieve this aim, facilitators should propose diverse activities and use different strategies to facilitate students' comprehension of content and development of English competencies. For instance, facilitators must scaffold their students since, according to Vygotsky (1978), students learn more by working with a facilitator. However, the facilitator is not the only person responsible for students' language learning success, it is also the students' duty to be actively involved in their own learning process. Students can use different strategies and skills to progress in a foreign language. For instance, self-direction is considered one of the most important skills to be developed since it directly influences the degree of students' learning success. This skill is well-known for being a

characteristic that stands out of adult learners. The following samples collected through the final

test, an observation, a journal and an interview will illustrate how self-direction was evidenced in

the participants of this study, who used different strategies to learn the new vocabulary.

In the last class, the facilitator evaluated the participants' vocabulary learning through the

stimulation of their senses: words were evaluated using images, audios, food, fragrances and

objects. For example, the facilitator showed an image (vision) of a word studied in class and then

the participant said its name in English, or the facilitator gave a piece of food (taste) and then the

participant said the corresponding name of the food in English. The data collected through one

journal shows that those participants who demonstrated more self-direction in and out of class,

learned the vocabulary taught during the 10 classes (*see Graphic 1*), which were 47 words, while

the one that did not have the initiative nor was autonomous for her own learning, retained fewer

words during the sessions.
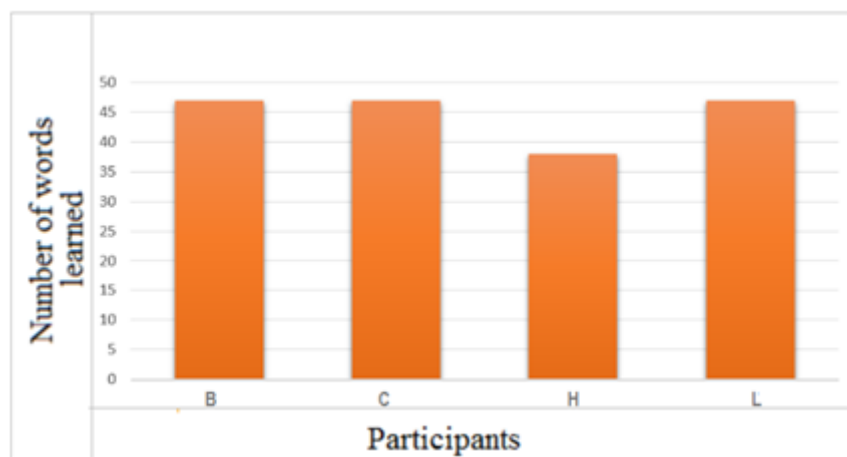


**Graphic 1**

The following excerpt of a journal also shows the participants' self-direction in their

process in terms of the learning strategies each participant used during the English classes. This

sample was taken from the journal of the last session.

**J10YE**

*"It is also remarkable, the strategies that each participant employed, and the possible success that each participant had due to their strategies. For example, L used to write all the words in English, in the way in which these words sounded to her, their equivalent in Spanish, she made drawings of feelings, fruits, musical instruments among others. Although she took notes during the classes, she always came to show us that she had rewritten them better organized and with better drawings. She also pasted in her notebook the sheets that the facilitators gave her; she also repeated a lot and emphasized pronunciation; B and C were participants who appealed to the use of drawings to relate the drawings with the written words (with their respective meaning in Spanish); on the other hand, although H asked a lot about the correct pronunciation of the words, she only wrote the words in English. In addition, the autonomy of the majority of the participants was evidenced as follows: the participants L, B, and C were characterized by wanting the implementers to grade their tasks, which consisted of notes (better elaborated) of the vocabulary taught in the previous classes; this leads me to conclude that during the days when there was no class, they studied the vocabulary taught. On the other hand, participant H did not demonstrate the same level of initiative for studying on her own."*

The samples above are evidence of the impact of learners' commitment to the class and their learning process. For instance, the graph illustrates the results of the participants on the final exam: the participants B, C and L correctly identified 47 words out of 47 words taught; different from H, who obtained 38 correct words out of 47. It is worth mentioning that the participants of this study just have experience learning English at school, which was more than 50 years ago. After reviewing all the information collected through the journals, observation and of the interviews, (see samples below) the researchers of this study found that the key element which marked the difference between vocabulary learning success of participants B, C and L and participant H was ***self-direction used as a mean to find learning strategies***. These strategies were note taking of the written form of the words in Spanish and English, and the pronunciation of these in English. Additionally, outclass, the participants practiced the vocabulary taught and

rewrote the notes on their notes and added draws. Also, they asked the facilitators as many times as necessary to understand one concept or to pronounce the word correctly.

Retaking the main idea, self-directed learning strategies marked the difference between the success in terms of vocabulary learning showed by the participants L, B, C and the lower success demonstrated by the participant H in relation to the other participants. This is evidenced in the following observation sample along with the strategy participant H used.

**O10BM**

*Unlike the other participants, student H, who demonstrated a low performance compared to the others in terms of the internalization of vocabulary, remains constant in her performance with respect to the recognition and pronunciation of words. This student differed from the apprentices L, B, and C, in terms of the responsibility for their own learning due to the fact that student H did not demonstrate the same level of autonomy as the others since she took notes, in her notebook, only from the words in English without looking for other strategies. In addition, she did not demonstrate to be practicing the vocabulary from previous classes (due to her results in relation to the other participants); on the contrary, it could be evidenced in the other three participants, since it influenced positively the performance of each of them.*

In the previous observation, it is shown that the difference between the participant H and the other participants, in terms of vocabulary learning, remained constant as she demonstrated less vocabulary recognition, in comparison to the other participants, until the last lesson. This difference is attributed to the lack of autonomous practices such as writing the meaning of the words in Spanish (all the participants involved in this study were able to read and write), its pronunciation in English, or drawing. Participant H never communicated to the facilitators that she studied at home or rewrote the notes; different from the other participants, who told the facilitators that they did extra activities or homework (that was not assigned) in order to improve

their learning. It must be said that after one of the lessons, the participant H expressed to one of

the facilitators that she attended to the English classes mainly because she wanted to help the

facilitators in the development of their research. Consequently, it can be stated that the

participant H had an extrinsic motivation rather than an intrinsic one, which could cause a lack of

interest in finding strategies to enhance her own learning.

Furthermore, in the final interview made to participant L, she expressed that she learned a

lot during the classes, and she started saying all the words she recalled at that moment. It must be

clarified that she was the participant who stood out the most from the rest for her interest,

motivation and self-direction she demonstrated to learn English. This sample demonstrates that

using varied self-directed learning strategies can lead to a high level of learning of vocabulary of

English.

**A-R2-T2**

> *"...I learned a lot, I think so...Happy (feliz), Surprise (sorpresa), angry (enojado), sad*
> *(triste), banana (banano), Orange (naranja) apoli (manzana), pear (pera), strawberry*
> *(fresa) cofi (café), chocolate (chocolate), Lemon (limón), vainilla (vainilla), Joni (Miel),*
> *Gad (dios), yisus crais (Jesucristo), holy spirit (Espiritu santo), pris (sacerdote), nun*
> *(monja)..ehh. A ver qué más me acuerdo...nun (monja) angel (enyel) banana..¡no!... rai*
> *banana (plátano maduro), ehh. Sausage (salchicha), egg (huevo), rais (arroz), bred (pan)*
> *toothpaste (pasta dental), jan crai (crema de manos), perfume (perfume), …… talcum*
> *powder (talco de pies), deodorant (desodorante), guitar (guitarra), piano (piano)*
> *accordion (acordeón), violín (violín), saxofón (saxofón)......"*

It can be observed that she mentioned some of the words she learned in both English and

Spanish for the facilitators to know that she learned the meaning of each word. All the 37 words

in English participant L said during the interview were the words she recalled more easily at that

moment, without previously rehearsal, which is a considerable high amount taking into account

her age and little English background. After the analysis of the data, the three samples previously

presented demonstrates that students' self-direction is a key skill that can contribute positively to

the students search and adoption of learning strategies that may lead them to obtain better

outcomes in their learning of English vocabulary.

Several authors, who had contributed to the construction of the literature review and

conceptual framework of this paper, have proposed similar ideas regarding the importance of

autonomous strategies. For example, Cassell (2011) found that self-directed learning strategies

influence second language learning success. The researcher carried out a study in Florida, United

States, that involved 11 older adult learners. She used interviews, observations and essays as

means to collect data. Furthermore, according to Chamotzky's (2014) definition of the five

principles of andragogy, most adult learners are sufficiently mature to be autonomous in their

learning.

After reviewing and comparing the literature with the data collected in this study, it can

be suggested that the lack or presence of self-direction when selecting appropriate learning

strategies to support the learning of EFL affects the success in the overall proficiency level. For

instance, the case of participant H, who demonstrated lower vocabulary acquisition in contrast to

her classmates. In this regard, Cassell (2011) suggested that the lack of practice of a foreign

language affects the development of language skills; for instance, the level of success of

participant H in terms of the number of words learned was lower than that of her classmates

since she did not practiced English out of the classroom. As stated in the previous excerpt of the

journal, participant H did not use strategies as writing the pronunciation of the words in English.

To summarize, it can be suggested that there is a directly proportional relationship between students' use of self-directed strategies and older adult learners' English vocabulary learning success.

**5.2 The role of older adult learners' senses in English vocabulary teaching**

During the classes taught to the older adult learners, the facilitators used materials that stimulated students five senses to present, practice, and assess the vocabulary taught. For instance, a) images and videos were used to stimulate learners' vision, b) sounds and songs were implemented to stimulate learners' audition, c) food was used to stimulate learners' taste, d) different objects were implemented to stimulate learners' touch, and e) different fragrances were used to stimulate learners' smell. After analyzing the data collected through the observations, journals, and interviews, the data suggests that some senses were more practical and fruitful to be used during specific stages. It must be clarified that two of the four participants presented more deterioration in the senses of touch, smell, and taste. The other three participants demonstrated little or no sign of senses' deterioration.

Vision and audition are considered as the senses that facilitated the most the learning and teaching process, mainly because those are the senses that the participants had less deteriorated; therefore, the experience when these senses were stimulated for them to learn vocabulary was more meaningful and enriching. However, it does not mean that the senses of smell, touch, and taste were not beneficial for learners. These aspects will be addressed in-depth in the following paragraphs.

**5.2.1 The impact of visual and auditory materials during the presentation and practice stages**

The facilitators divided the classes into three main stages: presentation, practice, and assessment of the vocabulary taught. The use of the senses during these stages varied depending on the design of the class: in some classes, the presentation of the vocabulary was done through visual materials and, in other classes, visual materials were used for the practice stage. In the journals, the facilitators expressed that vision and audition were the more suitable senses for these particular stages, and the reasons for this are illustrated in the following excerpt:

> *J3YE*
>
> *During the three implementations that have been conducted so far, I have noticed that the use of visual and auditory materials (as images, videos, sounds) facilitate the presentation of the vocabulary because the facilitator does not need to use Spanish to translate the vocabulary, the learners just by watching the image or listening to the sound of the word, know the concept. It is easier to teach the new vocabulary through senses that can be taught at the same time to all the participants for them to repeat the pronunciation and write in their notebooks the written form. Also, these senses are more practical for the practice stage in which the participants repeat the pronunciation of the words while watching or listening to something that allusions to the vocabulary they are learning because the facilitator can show the images or reproduce the sounds as many times as necessary and the participants will answer by naming the object in English…".*

In this sample, it is suggested that visual and auditory materials ease the facilitator the process of presenting concepts that learners know in their mother tongue, in a foreign language, in this case, English.  In the excerpt of the journal it was explained that facilitators do not need to translate the word they will teach since just by showing the concrete objects, images or reproducing the sound, the learners will know the concept they will learn in the foreign language. For example, during the first class, the facilitators showed the images of fours faces which

expressed the feelings happy, sad, angry and surprised. The facilitator pointed to each image and

say the corresponding name of the feeling in English, while in traditional classes the facilitators

would have used translation: happy= felíz, sad=triste, angry=enojado, surprised=sorprendido.

Consequently, it is not necessary to appeal to translation when using alternative material like

videos and songs.

On the one hand, it is argued that the senses of vision and audition are more appropriate

to be stimulated during the practice stage as well due to the facility of repeating the process of

showing the images/videos or reproducing the sounds for them to say the corresponding name in

English. For example, using fruits, the facilitator showed the fruits as many times as necessary

for the learners to practice and internalize pronunciation of the words; in addition, learners are

more involved during the classes as they actively participate when they are asked to pronounce

the vocabulary.

On the other hand, in this sample, it is also argued that vision and audition allow the

facilitator to teach the vocabulary to all learners at the same time since they are provided the

same input in the same moment. Hearing is especially important because through this sense

students listen to the pronunciation of each word. To illustrate, in the fourth lesson, the facilitator

played songs related to Christian characters: when the participants identified the character the

song was about, they had to say its corresponding name in English. Then, the facilitator and the

participants repeated the pronunciation several times until they articulated it correctly. In this

way, the facilitator stimulated older adult learner's hearing when playing the songs and when

saying the pronunciation of the words. In the final interview, participant L acknowledged the

importance of hearing as it is shown in the following excerpt of the interview:

**AR1T1**

> *Interviewer: "Si, entonces... ehhh...ehh nosotros nos planteamos varias preguntas para el proyecto que era por ejemplo que ¿¡Cómo ayudaba este proyecto a las personas a aprender inglés!? Ehh... entonces usted sabe que usamos los sentidos que fue el tacto, el gusto..."*
> *Interviewee: "si,si,si"*
> *Interviewer: "la visión y el audio. Bueno.. entonces.. ¿que sentido le pareció más indispensable durante el..."*
> *Interviewee: "¿Qué sentido?"*
> *Interviewer: "sí,qué sentido, ¿Por cual usted aprendió más? ¿Por cual pudo..."*
> *Interviewee: "mm"*
> *Interviewer: "cómo darse cuenta más?"*
> *Interviewee: "Tal vez por el oído, ehh.. por el oído..."*
> *Interviewer: "¿El oído?"*
> *Interviewee: "si, siii..."*
> *Interviewer: "¿SI?"*
> *Interviewee: "y la voz"*
> *Interviewer: "Mmm.. listo, el oído..."*
> *Interviewee: "Porque por.. por.. por el oído se escucha la voz"*
> *Interviewer: "Mmm, entonces, por ahí, para.. pues por el oído usted que, que, que le ayudó? qué le ayudó?"*
> *Interviewee: "eh.. eh .. ehh.. el oido, el oido"*
> *Interviewer: "si, ¿para instrucciones? para..."*
> *Interviewee: "para pronunciación"*
> *Interviewer: "¡pronunciación!, mmm, listo.. ¿qué otro sentido? ¿La visión, el tacto?"*
> *Interviewee: "ah.. la visión es muy importante también..."*
> *Interviewer: "si, pero ¿¡mas importante el.. el audio!?"*
> *Interviewee: "El audio, si..."*

In this interview, participant L expressed that she considers that hearing is the most important sense since she learned the most through it. She said that through this sense, she listens to the instructor's voice; therefore, she can learn the pronunciation of each word. Participant L even recognizes hearing as more valuable than vision, which is due to the importance she grants to the pronunciation instead of the written form of the words. In this sense, it can be said that both visual and auditory materials facilitated the participants' learning of words during the presentation and practice stages, and which was confirmed during the assessment stage. In this

regard, Schwieter (2013) suggests that implementing effective materials such as images and audios contribute to learners' understanding of content, especially in the case of older adults. He supports the idea for learners to understand vocabulary, teachers should implement different types of material that can broaden the knowledge of students about the concept. In relation to this idea, the use of visual and auditory materials is an excellent strategy since students can *experience* the vocabulary, which facilitates their understanding and retention of the words. Using multiple senses allows more cognitive connections and associations to be made with a concept; therefore, as it is discussed in the previous finding, the participants were able to learn 47 words.

Accordingly, Gorjian, Hayati, and Barazandeh (2012) argued that the multisensory approach is effective for teaching vocabulary to beginner learners and that it helps them to improve their overall proficiency level in a foreign language. This idea applies to the participants of this study who were beginner learners. At the end of the lessons, the participants were able to name 47 different objects and say language chunks as "I like coffee" and "apple is healthy". Specifically, it can be said that the multisensory approach can offer positive results in terms of English vocabulary learning growth in an older population because stimulating the sense of vision and hearing facilitates the effectiveness of making connections between visual/auditory materials and words. Also, it is practical to stimulate both senses during the presentation and practice stages since they allow teaching all the participants at the same time, as well as providing opportunities for students to practice. Furthermore, by stimulating the sense of audition, students improve the pronunciation of the vocabulary.

**5.2.2 The impact of materials that stimulate the senses of taste, smell, and touch during the assessment stage**

In the last stage, assessment, the facilitators made informal and formative assessment of students' pronunciation of the words and its correct association with the corresponding image, sound, taste, smell, and object. In the journals, the facilitators expressed that during the last class they realized that taste, smell, and touch are the senses more appropriate for the assessment stage as they required to be stimulated individually. This idea is illustrated in the following excerpt:

> **J9LF**
>
> *After the 9 classes we have planned and carried out, I have realized that the senses of taste, smell, and touch should be used in the last stage of the class because when we stimulate these senses, we have to go students by student and give them the piece of food, the object to touch or the fragrance to smell. This is perfect since in order to be aware of the level of achievement of each participant we should assess each older person individually and these three senses facilitate this process. In addition, as the stimulation of these senses takes much more time, it is more appropriate to do it at the end of the class. Moreover, I've been thinking that giving them the opportunity to touch, taste and smell is engaging for them since they are not able to see so they are always expecting and it's funny for them.*

The use of taste, smell, and touch during the assessment stage is coherent with the purpose of the stage, which is to make an appreciation of the level of learning of each student. When materials used to stimulate these three senses (such as fruits and perfume) are implemented, it is obligatory for the facilitator to go participant by participant; for example, to give a piece of food, the facilitator approach one participant, give the food, wait till she identifies the flavor, and wait until the participants articulate correctly the pronunciation of the word corresponding to the flavor (like apple). This requirement of going participant by participant is

aligned with the purpose of assessing individual performance. Moreover, the stimulation of these three senses takes more time, it slows the pace of the class because the facilitator has to go student by student and wait until she identifies the object; this process is repeated 5 or 6 times with each participant, it depends on the number of words taught. Therefore, the researchers consider that assessing the vocabulary through smell, taste, and touch can be done at the end of the classes.

Moreover, in the excerpt, it is argued that the use of materials that stimulate the senses of touch, smell and taste engaged more the participants during the assessment stage since they closed their eyes and touch the object, taste the food, or smell the fragrance. This created more expectation in the participants since they did not know what item it was and also the other participants were entertained watching their partners reactions and answers. This dynamic done in the assessment stage made the assessment process more relaxed and funny for the participants, which helped to low their affective filter allowing them to have a better performance. This idea is illustrated in the following excerpt of a journal:

> **J5BM**
>
> *…Today, during the activity in which the participants had to eat the food, I noticed that we all were laughing, the researchers and the participants. It was funny to observe that the participants did not know what they were going to eat, some said some jokes like "ay ojalá sea salchicha, me encanta jajajaja" or "quedé con más ganas de pan jajajaja". The atmosphere was really relaxed and comfortable. Another participant said, "ay no! si me dan comida qué rico venir a clase jajajaja". This made aware of the fact that stimulating this sense in this last stage of assessment is more appropriate as it makes it*

*appear as a funny activity and not as a test, they are relaxed, therefore they demonstrate*

*what they learned without problem…*

In this excerpt, it is described that both researchers and participants were enjoying the activity since they were laughing and making jokes. Also, it is explained that several participants made jokes and comments that allowed the implementer to infer that they liked the activity, like "if you give me food it is cool coming to class hahaha". This was the result of using food because it created a pleasant environment; different from, typical traditional English classes where the teacher is the person who talks the most and where translation exercises are the most implemented activities. The assessment stage is always a tricky step in which students get really nervous because they are afraid of making mistakes, in this case mispronouncing words; however, it was not evidenced in the implementation stage of this study since students always felt comfortable to show their knowledge. The facilitators never told the participants they were going to be assessed; therefore, they just perceived this step as a funny activity.

In relation to this, Jubran (2011), in a study conducted with young learners, suggests that when students are given the opportunity to use all their senses, they are more engaged in learning. Also, the author points out that the multisensory approach is a powerful tool for students to learn English entertainingly. In this study, it was corroborated that what Jubran (2011) suggests is not only applicable to young learners, but also to an older population since it was observed that they were more interested and relaxed during the classes when implementing materials that stimulated the senses of touch, smell and taste.

Having an enjoyable environment is highly beneficial because due to the interaction between students and the facilitator emerges learners' interest of, for example, practicing the vocabulary when guessing correctly the object they touched, smelled, or tasted, while their eyes

were closed. Thus, it increased their motivation for rehearsing, remembering, and applying what the vocabulary learned. Consequently, it can be suggested that the use of these three senses allows the facilitator to assess learners in an entertaining way, which lows the affective filter and allows students to improve their performance at the moment of demonstrating their knowledge. Furthermore, providing learners an amiable environment is especially important when teaching to older adults since, according to the andragogical theory, since learners should not be passive role during the classes and the facilitator should not have an authoritarian role.

## 6. Limitations

The main objective of this chapter is to describe the limitations that this research faced during its theorization and implementation. Thus, some circumstances that hampered the development of the research will be addressed; however, it is necessary to bear in mind that the limitations mentioned in this chapter should not be generalized since they were due to specific factors and contexts.

Having in mind that most studies are concerned about the teaching to children, there is a lack of researches in relation to the teaching to older adults, which represented a difficulty inasmuch as there was a scarce of information about the multisensory approach and andragogical principles applied to the teaching of EFL to older adults. Therefore, it was necessary to create and adapt materials while articulating the theory with the population requirements. For example, during the first implementation, the facilitator asked the participants to draw a moment in their lives where they felt happy, sad, surprised and angry. In this activity the researchers tried to articulate the multisensory approach (drawing-vision) and andragogy (experience). The researchers created all the activities from scratch.

Furthermore, as may occur in any other study, some information could be missing since human error can provoke the omission of certain information that is supposed to be gathered in the data collection methods such as the observations, which are annotations about students' behaviour and reactions during the classes. Also, journals, which are reflections written by the researchers; they are based on the observations, but they contain the personal perspective of each researcher about each specific moment in the class. Additionally, although through interviews it is possible to collect valuable data, putting into practice this data collection method relies on the

availability of the participants and sometimes it can occur that some participants are attending events arranged by the nursing home, a hospital, or they are receiving a visit from their relatives; thus, these situations affect the time for conducting the study. Finally, sometimes the technological devices presented some issues; for example, the low volumen of the computer's speakers caused that participants did not listen correctly, so they had to concentrate much more and approach to the speakers.

To conclude, these limitations will provide future researchers with an insight about the obstacles that can be faced when teaching EFL to older adults through andragogical principles and multisensory approach.

## 7. Conclusions

This research study was conducted in a private nursing home in Pereira, Colombia, by the research seedbed In-Bloom. The objective of this study was to teach English vocabulary to a group of older adults through the multisensory approach and andragogical principles. In order to collect valuable data, interviews, journals, and observations were used during the implementation stage. After the analysis of this data, the researchers came upon relevant results related to older adult learners' self-direction, the role of older adult learners' senses in teaching, and the appropriate selection to teach older adult learners through the multisensory approach. The results of this project are based on the teaching of older adults through multisensorial activities developed by the facilitators in the 10 classes implemented.

Firstly, the data shows that the key element which determined vocabulary learning success was self-direction used as a means to find learning strategies. For instance, the strategies that the older adult learners used were note-taking of the written form of the words in Spanish and English, and the pronunciation of these in English. In addition, outclass work conducted by the participants, most of them practiced the vocabulary taught on their own, rewrote the notes on their notes, and added draws. Also, they asked the facilitators for help to understand one concept or to pronounce the word correctly. Moreover, it was found that the lack of self-directed learning strategies can have a negative impact on older adults' learning vocabulary success.

Secondly, the data suggests that some senses were more practical and fruitful to be used during specific stages. For instance, vision and hearing were the more suitable senses to be stimulated during the presentation and practice stages because the translation was not necessary, and they could stimulate all the participants at the same time. Additionally, it was found that the

senses of taste, smell, and touch were more appropriate for the assessment stage as they could only be stimulated individually; thus, they required more time and effort to be stimulated.

Finally, this research project provided important data for teachers to implement the multisensory approach considering the andragogical principles. Also, teachers can find recommendations about the usage of the multisensory approach, what they can do and what to avoid. Moreover, teachers might benefit from the findings of this study since they can be informed about how to properly address older adults needs in EFL classes.

## 8. Implications

A new and fresh perspective was provided by this research project to the English teaching field to older adults. Conducting a study with the objective of helping this population to learn English vocabulary, through the use of the five senses, contributed with a wide insight about the manner in which the EFL teaching process must be implemented with this population.

This research project successfully found out the impact of utilizing the multisensory approach based on andragogical principles to teach English vocabulary to older adults. However, research studies may be carried out in the future since there is still the need to broaden knowledge about the scope of the multisensory approach and andragogical principles. Thus, this chapter will share pedagogical and research implications that can be taken into consideration when carrying out future researches in similar contexts. Even though the section is called "Pedagogical implications", it must be clarified that the ideas are based on andragogical principles.

### 8.1 Pedagogical implications

The aim of describing the pedagogical implications is to provide insights regarding the implementation and enhancement of strategies, methodologies, and techniques for the language teaching field after the analysis of the findings of this study; in this way, future researchers and teachers can be conscious about the different variables they can face when teaching in a similar context. The collection of data through observations, journals and interviews, evidenced that the retention of words was directly influenced by the older adults' self-direction. The data analysis revealed that the participants that were more responsible for their own learning by implementing strategies like notetaking and drawing, were able to retain more vocabulary than the ones that were not autonomous. For this reason, teachers should act as scaffolders and they should design

lessons and activities that allow learners to discover knowledge for themselves without

depending on someone else. In this way, self-direction will be fostered and older adults will

effectively learn the vocabulary.

Additionally, it is also recommended that teachers explore the use of self-assessment and

peer assessment to stimulate older adults to be more self-directed. Self-assessment involves

students in evaluating their own work and learning progress whereas peer assessment involves

students evaluating their partners' work. According to Brown and Hudson (1998), involving

students in the assessment process help students to understand what it means to learn a language

and increase their motivation to learn the target language; for instance, through self-assessment

students become aware of their strengths and things to improve, and through peer assessment

students analyse and reflect upon their partners' mistakes and apply that knowledge into their

own work.

Regarding the implementation of the multisensory approach, it can be recommended that

teachers stimulate several senses in a lesson instead of working with only one. This is due to the

fact that it can be problematic when there are learners who have one of the senses deteriorated;

therefore, teachers can appeal to the materials that stimulate the other senses and those students

can still receive meaningful input. In other words, it is recommended to work with various senses

in a lesson so learners can have different types of input to understand and learn the vocabulary,

so if there is a problem with a particular sense, they could focus on a different one.

Also, at the moment of selecting the materials, teachers should consider the senses that

their students have more deteriorated in order to facilitate students' recognition of the input. For

example, it is necessary to use big letters or images for the sense of vision, high-quality speakers

for the sense of hearing, well-shaped objects for the sense of touch, and strong flavor and fragrance for the senses of taste and smell.

Likewise, in the design of lessons, teachers should consider vocabulary that is closely connected to older adults' interest and to things with which they interact daily. For instance, in this study, it was found how learners were motivated when they were learning vocabulary that was part of their interests, such as the name of catholic characters.

## 8.2 Research Implications

The research implications is aimed to suggest changes and improvements for the forthcoming researches that integrate the teaching of English to the older population through the multisensory approach along with andragogical principles. Firstly, in this study, the aim was to teach English vocabulary which were isolated words related to different topics of interest for the older adult learners; additionally, two language chunks were taught. However, it is suggested that future studies investigate if it is possible that older adults learn how to construct simple and complex sentences in a foreign language. For example, conducting a research about the teaching of present simple to EFL older adults using andragogical principles.

Notwithstanding the fact that the data collection methods selected for this research project (interviews, journals, and observations) were advantageous tools to gather crucial data during the implementations, further researches may explore the possibility of using additional methods. Some important details can be lost when using observations and journals since they depend on the observer's perspective, and it is difficult to focus on several students and what they do at the same time. Consequently, recording the whole classes in videos may be helpful to identify more aspects about the students' performance in view of the fact the data may be analyzed more objectively. This way, videos might offer the possibility of fast-forwarding and rewinding so

more details can be observed and listened to, such as students' reactions to the different

activities, speaking skills, participation, completion of the tasks, and motivation.

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