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TEACHING LANGUAGES TO STUDENTS WITH VISION IMPAIRMENT IN HIGHER EDUCATION: A CASE STUDY

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“Teaching Languages to Students with Vision Impairment in Higher Education: a Case Study”

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Chapter 1: Introduction

1.1 Presentation

In recent years, disability and the recognition of the rights of this population have become relevant issues worldwide. Total participation with others can be diminished due to a disability. The following is the definition provided by the Americans with Disabilities Act (ADA) 2018:

> An individual with a disability is a person who has a physical or mental impairment that substantially limits one or more major life activity. This includes people who have a record of such impairment, even if they do not currently have a disability. It also includes individuals who do not have a disability but are regarded as having a disability.

"The word 'blind' refers to a child with minimal or no vision, and 'partially sighted' to a child with useful residual vision." (Harrison & Crow, 1993, p. 4). On the authority of Westwood (2009) vision impairment, also known as visual impairment, is the term used to refer to all sight disabilities that go from a small loss of vision through to total blindness. It does not include conditions that can ameliorate with the use of glasses. About 10% of children with vision impairment (VI) are completely blind. He also adds:

> In the population of students with impaired vision there are those who are deemed totally blind, those who are 'legally' blind, and those with varying degrees of low vision often referred to as partial sight. It is interesting to note that at least 80 percent of persons classified as legally blind do have some remaining sight. (p.76)

In Mexico, vision impairment is considered the second cause of disability. According to the INEGI (2010), it affects 1,292,201 people. The ENADID (Encuesta Nacional de la Dinámica Demográfica (2014) affirms that 58. 4% of the group of people with disabilities are visually impaired. The most affected, 48.8%, are adults over 60 years old due to age and

disease. Meanwhile, 17.2 % are under 30; and 33% are between 30 and 59 years old. More than 50% of people with vision impairment aged between 6 and 29 do not attend school. (Poy, n.d.) As maintained by Blandina Viveros Sánchez, President of the Rehabilitation Institute for Learning and Integration for the Blind and Visually Impaired A.C. (IRAI), there are 22,000 people with impaired vision in Puebla, Mexico. Many of them are victims of prejudice, a fact that prevents them from integrating completely into society (Staff Puebla online, 2011).

There are international policies that prohibit any form of discrimination or exclusion. Nevertheless, most people with a disability lack educational and employment opportunities. In order for people with VI to be included in society, they most have access to educational and work opportunities. O'Mahony (2017) found the following:

> Entering the job market after leaving education can prove a tough challenge for anyone in today's climate. However, young people with disabilities face far fewer options for employment than non-disabled candidates. The 2010 Equality Act was brought into practice partly to prevent discrimination against disabled people in the workplace. Yet disabled workers are often still unfairly treated. (p.45)

The older the person, the more difficult it is to continue studying. As reported by the INEGI 83.6 % of children with vision impairment between 6 and 9 years old attend school, and 41.7 % of the adolescents between 15 and 19 years old continue. Nonetheless, only 6.5 % of the population between 25 and 29 years old has access to education (Poy, n.d.). Westwood (2009) identified that the difference between the number of people with vision impairment in developed and underdeveloped countries is significant:

> In developed countries, vision impairment is a low incidence disability affecting approximately 1 to 2 individuals per 1000 among those below the age of 65 (Tate et al., 2006). Approximately 7 in every 10000 persons are legally blind. The

> prevalence rate for impaired vision increases very significantly among the older population. The prevalence rate is also higher in under-developed countries and in communities where health services and infant health care are less readily available. (p. 77)

People with vision impairment have a different perception of the world, but they have necessities and rights just like any other person. They can have equal learning potential, yet they need to acquire knowledge in a different way. "Sighted children see the whole at a glance and then may look at detail. In contrast, visually impaired children must first explore the details before they can understand the whole" (Harrison, & Crow, 1993, p. 4).

Disability, race, language, religion, and poverty are some of the reasons why children are excluded. Notwithstanding, everyone is entitled to learn and develop in order to achieve full potential. The American Foundation for the Blind states the following in their Paper on the Inclusion of Students with Visual Impairments (n.d.):

> Inclusion, full inclusion, and inclusive education are terms which recently have been narrowly defined by some (primarily educators of students with severe disabilities) to espouse the philosophy that ALL students with disabilities, regardless of the nature or the severity of their disability, receive their TOTAL education within the regular education environment.

Learning in school is imperative to the social development of children. It assumes a social essence because it is a process to grow intellectually together with other people. According to Davis (2003):

> A belief in socially constructed knowledge makes it difficult to separate the idea of children's social inclusion in the learning process from their development. Webster and Roe (1998) have highlighted the importance of social encounters to promote

visually impaired children's cognitive and linguistic as well as social development. (p. 11)

Access is the principal element of inclusion. It goes beyond putting an individual in a regular school. In order for students not to be excluded, they have to be able to approach all sorts of information. It is the only way they will be able to compete with their peers and later on, in society. Learners with visual impairments will not be included except if their unique educational needs for access are addressed by especially trained personnel in appropriate environments and unless these learners are provided with equal access to core and specialized curricula through appropriate books, materials and equipment (Paper on the Inclusion of Students with Visual Impairments, n.d.).

When we are born, we are helpless. It takes a long time for a human being to become independent. A series of developmental stages and learning experiences have to occur. Vision is fundamental in every step of development and in the acquisition of autonomy.
During the first year of life, babies store information that will be used to expand their knowledge of the world. In other words, learning can only take place if there is old information to relate to. Infants spend most of their time observing human behavior. "Vision is their primary information gathering sense, with hearing and touch acting as reinforcers" (Bishop, 2004, p.58). Many concepts; such as, color, distance, and sometimes shape, depend on vision in order to be understood. Things that are out of reach can be explained if there is reference learnt beforehand. Children enter school carrying their entire previously acquired personal database. Its quantity and quality are fundamental for the learning outcome to be satisfactory.

Our world is basically visual. As a result, most school education relies on vision. It takes for granted that everyone has visual experiences and memory, and that sight can help increase knowledge. The effects of vision loss differ significantly depending on the person. The type

and degree of impairment together with the age when loss vision happened determine the dissimilarities. Therefore, children who are blind from birth do not have the same extent of learning experiences and concept development as those who become blind later in life. If people were able to see for a certain period, they have normal visual experiences and images to refer to and, hence, visual memory (Westwood, 2009). According to Bardin and Lewis (2008):

> The very nature of visual impairments can influence the participation of students who are blind or have low vision. Students with visual impairments often miss the subtle, untaught information that provides the basis for understanding key concepts on which general education is based. The resulting gaps in concept development can later affect their ability to infer, predict, comprehend and create during learning activities. (p. 473)

Early development and learning is affected depending on the peculiarities of the vision impairment. When the individual is completely blind, the rest of the senses are responsible of the data input for the brain. However, that kind of information may not be as motivational as the one provided via vision. "In congenitally blind infants, sometimes the other senses are able to take over the area of the brain reserved for vision, thus somewhat strengthening the quality of information collected. (This ability of the young brain to reprogram itself is called 'plasticity')" (Bishop, 2004, p.59). The brain must receive enough data for this to happen.

When it comes to language acquisition, blind children do not have problems at the preverbal stage. Nonetheless, when they have to attach words to objects, people, or actions; there is a delay. "Many blind children learn to use words without having clear understanding of their meanings ("verbalism") because language takes on social significance, to be socially accepted, people talk" (Bishop, 2004, p.69). Pronoun use, describers (adjectives, adverbs),

and applied uses of language (asking questions) are other areas of language that can be difficult to acquire.

Interaction with the environment is fundamental for a child to construct reality and develop concepts. "Meaningful language acquisition relies on first-hand contact with a variety of things and actions" (Bishop, 2004 p.60). Experiences with the environment provide the data that will be stored in the brain, and can be use for future reference and recall.

1.2 Information and Communication Technology in Education

We never stop experiencing culture. It happens in a different way for every generation, so its members assign new meanings to it. "The living culture is now the culture of the computer, the Internet, the global media, the hypertext, the interactive encyclopedia and, of course, the book" (Goodwyn, 2000, p.75). Conforming to Loveless and Ellis (2001) the term information and communications technology (ICT) describes "a set of technologies that vary widely within and between subject areas" (Loveless and Ellis as cited in Hegarty & Florian, 2004, p.8). Hegarty and Florian (2004) add ICT can also mean computer technology or simply technology. As a result, it can refer to hardware (the machinery), software (the kinds of programs that are available) or networks (communicating with others) too.

Every single feature of ICT has implications in the field of teaching and learning. It has revolutionized education. Also, it has helped teachers by giving them various ways of instruction.

ICT is an extremely useful way to obtain, analyze and organize information. Besides, it is a great means of communication. Likewise, it allows interaction of apprentices, in which they can decide the rhythm, the sequence and the amount of information they get. Furthermore, new technologies seek to promote interactivity, innovation and the development of cognitive processes based on cooperation. Apprentices can no longer just receive information. Now,

they must learn to learn in a meaningful environment. ICT can help reach this end because it allows us to obtain global information, shorten distances, and simulate situations thanks to educational software.

ICT in education has steadily been growing. Nonetheless, there are also problems regarding accessibility and usability of these technologies. According to Hersh (2015):

> Accessibility is about the system input and output enabling particular (groups of) users to use all system facilities, whereas usability is about them being able to do this effectively, efficiently and with satisfaction. In addition, it is important that ICT is used to support accessibility of all types of learning to disabled people rather than as an excuse not to make face to face learning accessible. (p.19)

In order for current learning technologies to be accessible and usable for everyone, they can be adapted or used together with other technologies. ICT can give students with VI more favorable circumstances to take part completely in education. The fast changing field of information technology and learners with vision impairment are two intricate subjects. One thing to keep in mind is that not all physical impairments prevent individuals from learning. In some cases, special arrangements can be made so that the conditions do not generate learning barriers.

ICT has become relevant in education thanks to the various innovations and manners in which technology assists apprentices. However, technology on its own is useless, because it only works if educators use it appropriately. People differ in how inclusion can be reached. For some it is the role of the educator to provide all the support so that learners can defeat difficulties. Others think that experts or special schools should help these students overcome obstacles (Davis, 2003).

Means (1994) argues that the application of ICT is different depending on teachers and the outcome they want to obtain. Tutoring, exploring, communicating, assessing, and managing

are the uses of ICT and their applications to learners with special educational needs (SEN) that she identified. (Means, 1994 cited in Hegarty & Florian, 2004, p.10). The diverse opportunities that ICT can provide to students with VI result from the way technology is used to improve learning or participation.

ICT has changed education, and is transcending the learning and teaching methods. Multiple perspectives must be included in the learning environment where students have no longer a passive role. Providing learners with tools that will help them come up with their own solutions has become essential. Constructivism is about apprentices building knowledge and meaning thanks to experience. Furthermore, this theory regards collaborative learning as crucial because it considers that students can achieve more in a social context than individually. (Pass, 2004)

1.3 Objective

The general objective of this research is to increase participation, achievement and independence of students with vision impairment through language teaching. I would like to aid them to reach their learning goals so that they can compete in society. The specific objectives are to provide the second language teacher the necessary resources to help these learners, to determine how students with VI learn a second language, and to establish what obstacles they face; in order to assist them in developing skills to have better opportunities.

1.4 Research Questions

The following question will lead this research project:

How can teachers improve language teaching to students with vision impairment (VI) in Higher Education?

The secondary questions that will serve as guides are:

1. How do students with visual impairment (VI) acquire their first language?

2. How do students with VI learn a second language?

3. What are the most common problems that students with VI face when acquiring a second language in Higher Education?

4. What are the most efficient methods to learn English for students with VI?

5. What are the most suitable tools and assistive technologies for students with VI to learn English?

6. What Information and Communication Technologies (ICTs) can assist students with VI in learning English?

7. What activities can help students with vision impairment (VI) learn a second language?

I want to determine through research what instruction strategies, methods and technologies can help acquire a second language in students with VI. Therefore, I will conduct qualitative research based on an intrinsic case study of a single individual. The intervention will last six months. The study will examine factors that contribute to English learning in an apprentice with vision impairment. This research is important because it proposes a strategy that will benefit learners with VI and their teachers. It is convenient because it will help those students learn a second language.

Apprentices with VI have to be supported to have as many experiences as possible so that they can fully take part in society. Visual impairment cannot be an excuse for exclusion from the curriculum. Teaching learners with disabilities represents a challenge, but there are many benefits for everyone when it is effectively carried out.

Since this is a case study of a single individual generalization of the results is an important limitation. Consequently, it will be difficult to apply the outcomes to other contexts.

1.5 Chapter Summary

It has been emphasized that one of the most important challenges in current education is to integrate all the resources and tools that can help develop skills-based learning in an inclusion context. Globalization and the information age are paramount paradigms that have created new demands for many professions and education. It is compulsory that disable professionals get incorporated into the working world under these models in order to be successful. ICT has led to major innovations in training practices and has also transformed education in its nature, in the place and form where it is carried out, and in the role of teachers and students. Schools must offer a comprehensive education that meets the needs of today's society in a global world. Moreover, it must be based on principles of quality and equity. Adapting to changes also means adjusting to new educational models, learning experiences, and evaluation systems in line with the competency-based model. No one should question the significance of ICT in education. It improves the apprentice's achievement and provides enhanced communication. Besides, it offers great benefits to students when it is adjusted to their specific requirements. Because it is an indispensable constituent of our society, it cannot be separated from the educational uses for learners with vision impairment.

Students with VI have specific necessities that, unless they are satisfied, they can generate obstacles in learning. Inclusion or inclusive education stands for a fairer strategy to fulfill the demands of all apprentices. This means there cannot be any barriers to partake in education. Apprentices with VI also need education that favors independence. Vision is vital for people to learn, and that is probably why most traditional education is based on it. However, if students who are visually impaired are provided with appropriate instruction, they can succeed. University should be an institution where diversity prevails. There is no place for discrimination. It is the educators' duty to recognize and respect the differences that form each person so that they can meet their particular requirements as students.

This research project will observe the following order. In chapter two the pertinent literature will be reviewed. The main focus of chapter three will be the research methodology. The results will be discussed in chapter four. Finally, the conclusions will be presented in chapter five. All the activities developed during mentoring hours will be assessed and will be presented in appendix A. Parts of the field notes taken during mentoring will be also shown in the last column of the table in appendix A. Appendix B will contain certain segments of the transcriptions of the interviews.

Chapter 2: Literature Review

2.1 Introduction

Normal vision, moderate vision impairment, severe vision impairment and blindness are the four broad categories for vision as claimed by the International Classification of Diseases -10 (Update and Revision 2006) (World Health Organization, 2018).Visual impairment represents an important loss of vision. As stated by Corn and Lusk (2010):

> A person with low vision has measurable vision; however, has trouble executing or is not able to achieve visual tasks. Standard glasses or contact lenses do not help these people accomplish those tasks, but they can improve their ability to perform them by using compensatory visual strategies, low vision devices, and environmental modifications. (pp. 4-5)

Total blindness means that a person is unable to see with either eye. As claimed by Corn and Lusk (2010), visual impairment consists of blindness and low vision. It can be congenital or adventitious. Congenital makes reference to loss of vision present at birth. Adventitious visual impairment means the loss of vision was the result of illness or an accident and, hence, happened after birth.

The learner's capacity to obtain skills and notions is affected by the age and level of development of the student previous to the beginning of the visual impairment. "Students with congenital blindness may have difficulty acquiring concepts, while students with adventitious blindness may retain sufficient visual memory to benefit from visual descriptions" (Carney, Engbretson, Scammell, & Sheppard, 2003, p. 3). The visual impairment of the apprentice determines how instructional practices and material should be adapted in order to obtain effective learning.

2.2 Language Development and Blindness

2.2.1 Learning. Every individual has a different experience of learning. It could be; for example, the literal retention of knowledge achieved through repetition or the interpretative process aimed at understanding reality. Any attempt to improve people's means of learning contains a definition of learning. "An alternative way of thinking about learning is to realize that what is learned (the outcome or the result) and how it is learned (the act or the process) are two inseparable aspects of learning" (Schmeck, 1988, p. 53).

Learning can be viewed from many perspectives. One perspective is the phenomenological. Marton (1981, cited in Schmeck, 1988) suggests that educators can improve learning by encouraging students and teachers to define it more, for instance, to include personal development or self-actualization as a legitimate part of the process. He also suggests helping learners enrich their internal characterizations of reality, assisting them to "see" that reality from more than one perspective.

A second perspective for studying learning is behavioral. From this viewpoint, "…learning is an observable change in a person's reaction to an equally observable stimulus situation. The change in reaction (i.e. in behavior) is traditionally said to be relatively permanent once it has been learned" (Schmeck, R. 1988, p. 4). The cognitive view of learning can be included in this category.

A third perspective is the neurological which considers learning as "the process whereby the nervous system is transformed by its own activity. It is the 'tracks' left behind by thoughts, that is, neural activity changes the neurons that are active, and that change is the structural basis of learning" (Schmeck, 1988, p. 4). This perspective gives important educational implications from a position which may seem, at first glance, to be far removed from education.

Behavior is affected by two types of influences: characteristics of the person (including genetics, cognitive style, and prior experience) and characteristics of the specific situation in which the behavior occurs. Styles and motives belong to the person and are related to genetics and prior experience. Situational influences are in the context and, like styles, cannot be observed directly.

As reported by Harrison and Crow (1993) blind children have to base their learning on concrete experience. Abstract ideas should not be introduced unless specific concepts are understood. Also, concrete experience takes precedence to verbal information. In any case, blind and sighted children have an equivalent learning potential.

2.2.2 Language. Language is an element derived from every society. It exists in each social group even when it has not been developed intentionally. We use it to render ideas. Since it is the privileged way to communicate, there is no situation in which we do not use it. Even someone on a desert island would use language to express their ideas or thoughts. To be able to say that we know a language, we must be able to put in common or to create meaning, that is to say, to communicate. Knowing the words and grammar rules is not enough. Due to the fact that language is a cultural phenomenon, it is necessary to be aware of the cultural aspects. The message should help the person, to whom it is directed, to create meaning. A language is known when equal codes are shared and identical sign systems are used in the same way other people who also know the language do. Native speakers have an unconscious knowledge of their language. However, in the early stages of learning a new language, there is awareness of what is about to be said and how language is used.

2.2.3 The Development of Speech in Blind Children. Language development in blind children is commonly assumed as being the same as in sighted infants. However, nonverbal communication and nonverbal context are restricted to what they can perceive with the rest of their senses. "Many arguments assert that language development builds on non-verbal communication (for example, Bates, Camaioni, &Volterra, 1975; Bruner, 1977) and that language development depends on accessing the meaning of sentences from the observable nonlinguistic context" (Hoff, 2001, p. 339). Nevertheless, language development in blind children challenges these postures. Communicative interaction and language development can be modified by means of blindness.

It has been taken for granted that, visually impaired children learn later in life because they go through the same stages as sighted children, but at a slower speed. According to Warren (1994):

> …much practice and many intervention programs have been based on this premise. Their goal is to intervene in order to cause children with visual impairments to show the same rate of development as sighted children. The implicit theory that guides this reasoning can be called the *developmental lag* theory. (p. 4)

However, this cannot be absolutely assumed because there are other approaches. So he adds:

> At the other extreme from the simplistic notion of developmental lag, is that the development of children with visual impairments is totally different from that of sighted children, and that there is nothing at all to be gained by making any reference to the development of sighted children. (p.4)

He also proposes an approach to the analysis of development of children with visual impairments which refuses the Comparative Approach in relation to Chronological Age (CA) because:

> This approach implicitly assumes a "blindness as deficit" model, in which the differences revealed are attributed to the variable that differentiates the two groups, namely the presence or absence of vision. Using this approach, one then concludes what the effects of the absence of vision are. This approach has advantages and disadvantages. The chief advantage is that the frame of reference is clear —it is the developmental psychology, and the accompanying developmental norms, of the sighted child. For most areas of development, there is a vast accumulation of information about what the course of development looks like. Therefore, it is relatively easy to study the normative development of children with visual impairments and to compare the evidence with that for sighted children. (p. 2)

The approach also recognizes it is possible to learn from the development of sighted children. Besides, it presumes that the connected variables to visual impairment act as additional causes of change in the children's development. Warren (1994) also considers the following premises of the adaptive tasks approach:

> 1. the developing child faces a set of adaptive tasks;
> 2. the child faces these adaptive tasks armed with a set of personal capabilities and characteristics;
> 3. the environment shapes not only the nature of the adaptive tasks but also the child's set of capabilities and characteristics; and
> 4. for the child with a visual impairment, there are variations on the tasks, the capabilities and characteristics, and the environmental circumstances that must be taken into account to understand development and its causality. (pp. 6-7)

Our senses allow us to experience the physical and social environment. However, the obtainable information does not represent a limitation. "We remember events in prior experience, we learn about situations by experiencing them, we can reason about possible

situations, and so on" (Warren, 1994 p. 4). Cognitive skills help us understand all the concepts in the world. Warren (1994) divides cognitive skills into three categories: language, concept formation, and classification. Language is the most important way by which things make sense. Meaning is produced and exchanged through it. As stated by Warren (1994):

> Concepts are the stuff of thought. At one level, "concept" implies that the limitations of perception have been escaped. If the child has a concept of an object, then he or she needs not have that object physically present in order to think about it. Abstract concepts do not refer to perceivable items or events: the concept of "truth" is an example. Qualities such as "red" or "heavy" are also conceptualized. (p. 5)

Landau and Gleitman (1985) developed the syntactic bootstrapping theory of word meaning. In order to transmit the significance of a word, the conversational setting and its position in the linguistic context must be considered. Experience helps children figure out the relation between sound and meaning. They accomplish this inductively. Landau and Gleitman (1985) observed that the relevant inductions are the result of determining the relations between heard speech and objects, scenes, and events learners encounter as they listen.

> All parties who have thought about language learning from the early empiricists such as Locke and Berkeley to rationalists such as Leibniz, and from behaviorists such as Bloomfield (1933) and sociocommunicative theorists such as Bruner(1974-75) to learn ability theorists such as Wexlerand Cu-Heover(1980) agree thus far: Some interpretive context, paired with speech events, is required if language learning is to get off the ground floor. No disagreement arises, then, about the necessity for extra-linguistic experience. But despite this agreement, the theorists just mentioned vary considerably in their conceptions of how language is

> attained by the young child. Their disagreements have to do with the sufficiency of experience for learning a language. Exactly how is the relevant external experience to be internally represented? How could anyone use this experience to learn a language? How could seeing a dog while hearing "dog" determine that /dɒg/ means "dog"? (p.1)

How experience in language learning functions is pertinent because blind and sighted people deal with different life events. "To the extent that blind children's extralinguistic contexts for the words and sentences they hear differ from those of sighted children, one might expect their language learning to differ as well" (Landau & Gleitman, 1985 p. 2). The role of experience in shaping the mental lexicon can become clear if learning is in fact different. Language learning is completely related to learning from incomplete derived knowledge. "No one requires experience of every dog to acquire the word *dog.* It is this strikingly uniform acquisition of language, based on only partial and sometimes quite impoverished relevant experiences, that makes a mystery of language induction" (Landau & Gleitman, 1985 p. 2). A blind and a sighted child do not have the same inductive base. These researchers also centered their attention on three interrogations related to how blind children are affected by experiential deprivations:

> (1) Is their language acquisition seriously delayed or grossly distorted because of limits on available contextual support?
>
> (2) Are their difficulties centered on linguistic items and structures that, for sighted people, describe visible things or the visual experience?
>
> (3) Is their learning, to the extent that it is successful, a consequence of special adjustments made by their sighted caregivers? (p.2)

For their study, they considered the landmarks of language acquisition in three blind children, and compared them with those of sighted children.

> Both for syntax and for word learning, extreme differences in what is learned early and easily by blind and sighted children might be expected, assuming that extra linguistic experience is the driving causal force in language learning. Oddly enough, our general finding is that the blind children develop much as do their sighted age mates. (p.2)

The development of a blind child in two categories that are seemingly related to sight, the use and interpretation of the verbs look and see and of adjectives of color, were deeply researched for question number two. In their authority:

> Surely if extra linguistic experience provides the route to learning, a blind child should have maximum trouble with these terms, for they seem to refer directly to the sighted world. Nonetheless, as we will show, a congenitally blind child can acquire considerable sophistication with the sighted vocabulary. To understand these surprising findings, we then examined the actual input circumstances of a blind learner to ascertain whether selected properties of the sentences or contexts provided by her caregivers explain the character of what she learned. The findings from this inquiry taken as a whole give little support to the view that first language attainment is explainable as a straightforward derivative of information provided in the environment of the learner. Rather, they suggest to us a learning procedure significantly modulated and constrained by the child's natural (innate) biases about the content and form of a natural language. (p.3)

Before studying blind children, Landau and Gleitman (1985) also took into account three problems learners appeared to confront when learning from observation. The first problem is that there are too many encodings of experience available. When a child is acquiring a first language, there are many descriptions accessible in the real-world contexts which are appropriate for one scene; for example, "The cat is on the mat", "The mat is under the cat" or

"The cat and the mat are on the floor" The data in the external world is the same for any interpretation. “Thus the general acknowledgment that context is necessary should not be confused with a proof that it is sufficient for language acquisition” (Landau & Gleitman, 1985, p. 4). They concluded that a child does not learn a language from observing the world or interpreting the context.

The second problem has to do with false experiences. In certain circumstances, the learner can falsely pair the extra linguistic experience with the sound signal. “If this problem is not qualitatively different from those mentioned just above, it certainly is an exacerbation of the real difficulties in envisaging machinery that extracts the words and their meanings from raw confrontations with utterance/event pairs” (Landau & Gleitman, 1985, p. 5).

The third problem looks on abstract meanings. There are words with no immediate relationship with sensory-perceptual experience. Some nouns, adjectives, or verbs have extremely imperceptible connections with experiential descriptions. “But learners evidently have little trouble in acquiring the sense of these words, which could not derive from material aspects of experience” (Landau & Gleitman, 1985, p. 5). As a result, language acquisition is not exclusively achieved thorough extralinguistic context or real-world experience.

When Laundau & Gleitman (1985) studied vocabulary and syntactic development in blind children, they compared sighted and blind youngsters of the same ages. They found out that, even when blind infants start to speak later but within normal range, there are no evident disparities by the time they turn three. Another issue related to vocabulary is that blind children know less terms for objects that cannot be touched; for example, moon. Nevertheless, they are cognizant of more words for items correlated with auditory change; for instance, musical instruments. (Bigelow, 1987 as cited in Hoff, 2001, p. 340). As stated by Mills (1993):

> Research on the language of blind children has focused relatively seldom on theoretical questions in language acquisition. The main body of information which is available on language acquisition in blind children stems from research carried out by practitioners in the field. (p. 150)

The researcher also claims that the principal focal point has been on detecting the problematic areas for blind children and then trying to come up with solutions. The chief objective of the theoretically oriented work has been to depict the functions of vision in language acquisition in sighted children to define the areas where there are differences between children who can see and those who cannot. (Mills, 1993).

John Locke, a philosopher from the school of British empiricism, puts great emphasis on the role of experience for language learning. As a result, essentially visual concepts would not be possible for blind people to learn and would lack of meaning. From the empiricist theoretical framework, blind children acquire language in a distinct way as a result of how they experience the world.

There is also argumentation between the relation between cognitive development and language acquisition in blind children. From this point of view, any part that influences cognitive development will also alter language. "If language acquisition is seen as closely related to and dependent on cognitive development, any factor influencing cognitive development will therefore affect language" (Mills, 1993, p. 151). On the one hand, Jean Piaget maintains there is a close relation between cognitive development and language acquisition. On the other hand, Chomsky claims that the connection between both is a roundabout. Mills (1993) cites Piatelli and Palmarini (1980) about Chomsky:

> I do not know if anyone has investigated this, buy my own prediction is that it would turn out that there is no relation whatsoever, or at best the most marginal relation, between even extreme defects that would make it virtually impossible for

> a child to develop and do all the things that Piaget was discussing, and his acquisition of language. (p.151)

Chomsky declares blind children follow the norm regarding language acquisition. In the opinion of Mills (1993) this assertion is, to a certain extent, overstated, yet he recognizes cognition is a compelling issue. "It may not be so obvious that blindness could affect the development of language. It is only when the, usually implicit, role of vision is considered in these models that the lack of vision may seem to be a problem" (Mills, 1993, p. 151).

Some research has been based on comparisons between sighted and blind children which consider the rest of the elements as equivalent. However, the degrees of visual impairment vary largely. According to The World Health Organization (WHO)(2018), the International Classification of Diseases 11 (2018) classifies vision impairment into two groups, distance and near presenting vision impairment.

> Distance vision impairment:
>
> Mild – presenting visual acuity worse than 6/12
>
> Moderate – presenting visual acuity worse than 6/18
>
> Severe – presenting visual acuity worse than 6/60
>
> Blindness – presenting visual acuity worse than 3/60
>
> Near vision impairment: presenting near visual acuity worse than N6 or N8 at 40cm with existing correction.
>
> A person's experience of vision impairment varies depending upon many different factors. This includes for example, the availability of prevention and treatment interventions, access to vision rehabilitation (including assistive products such as glasses or white canes), and whether the person experiences problems with inaccessible buildings, transport and information. (n.p.)

Another factor that can influence comparisons is the age when blindness began. "…surprisingly, early blindness is not always a disadvantage" (Warren et al 1973, as cited in Mills, 1993, p. 152). One more variable is when there is a further impairment besides blindness.

Previous studies have determined that a paramount component in defining the beginning of language is a favorable communication in the preverbal period. This applies for both sighted and blind infants (Mills, 1993). Vision is a decisive constituent when setting up the initial communicative patterns. Gaze for indicating focus of attention and gesture (for example, reaching for an object or pointing) are missing in the interaction with blind children. This adds difficulty for blind infants to keep up with the communicative attempts. For this reason, a great responsibility of adults interacting with blind children is that of understanding other signals meaning direction of attention and communicative purpose. Otherwise, the development of normal communication and language could be compromised. "…it is essential for successful language development that the adult embed the child's vocalizations into a communicative routine" (Mills, 1993, p. 153).

Conversational interaction is also different in blind children. "Adults talking to blind children tend to initiate topics more than adults talking to sighted children do; and when blind children introduce topics, they tend to be self-oriented topics" (Kekelis & Andersen, 1984, as cited in Hoff, 2001 p. 341). Gleitman & Gleitman (1991) also noted that a source of exasperation, and sometimes of behavioral problems, is the fact that it is complicated for young children to comprehend the conversations that take place around them. They state:

> Babbling, sound perception and speech production are strongly related. Babbling first appears to be the same as in sighted children (between 6 and 7 months). "Since babbling appears to begin at the same time for both sighted and blind infants, it would appear that observation of the talking face is not

> crucial for this activity to be triggered" (Mills, 1993, p. 154). Blind children depend on auditory cues considerably more than sighted children. (p. 68)

According to Hoff (2001) blind children have a diverse and, to some extent, a slower phonological acquisition. He makes a further remark:

> Blind children make more errors than sighted children in producing speech sounds that have highly visible articulatory movements (such as /b/, /m/, /f/), but they are not different from sighted children in their production of speech sounds produced by nonvisible articulatory movements (such as /t/, /k/, /h/). This suggests that visual information, such as lip configuration, contributes to phonological development in sighted children. (p. 339)

However, an affected phonology is not always an unavoidable consequence of a visual impairment. Blindness is not the sole reason for language onset delay.

The type of lexicon of blind and sighted children is related to the type of usual experiences they have; for example, they know more terms for household items. Besides, blind children do not usually generalize a term to a category of objects. Instead, they only use one word to make reference to one particular thing. (Mills, 1993). She adds that the evidence on any delay in the area of morphology and syntactic structure is contradictory. She maintains that whenever there is a setback, it can be associated to other circumstances apart from lack of vision. A multiple disability is usually implicated in this sort of matter.

Landau & Gleitman conducted research in three children. They noted notable syntax delay in all three. The most meaningful difference was the acquisition of the auxiliary verbs in English. They suggested that the mother's input was the principal cause, because the maternal speech was mainly composed of direct imperative forms. In spite of the delay, there was no perpetual harm in speakers of English as a first language. Further studies performed with sighted children showed that if the maternal input was extensive in imperatives and

moderate in yes/no questions, there was a strong correlation with a delay in the acquisition of auxiliaries. (Newpoet, Gleitman, & Gleitman, 1977, as cited in Hoff, 2001).

Landau & Gleitman (1985) do not support the notion that there is a remarkable connection between experience and language. For them, lack of vision and insufficient acquisition are not necessarily linked. However, when using terms related to vision the language of the infants with VI is dissimilar to that of sighted children. In their work, they demonstrated that the words related to sight, made sense to blind children too. They concluded that blind children understand visual verbs in connection with the sense of touch. However, Mills (1993) differed with them:

> On the basis of personal observation of blind children I would argue that it is not correct to say that the haptic modality is always the next dominant: I have observed blind children using the verb see with the meaning of "to hear"; their use seems to be dependent on the situation. There is possibly individual variation in the hierarchy of modalities" (p. 158).

Other issues related to semantic development are the acquisition of deictic and locational terms, and personal pronouns. Mulford (1988) conducted research related to deictic terms, both personal and spatial, in three blind children and in sighted infants. The acquisition of deitic terms; such as, this, that, here, happened later in blind children than in sighted. She mentions, there is a delay in the acquisition of the underlying cognitive concept of space, and states that cognition and language acquisition are closely related.

Nevertheless, being blind children successful in acquiring a language tells us that it is not a simple process of mapping sounds onto the things and actions to which they relate (Hoff, 2001). Mills (1997) notes that comprehending the function of vision in language acquisition, in order to establish more beneficial conditions for language learning, is imperative.

While Landau & Gleitman concluded that experience alone does not determine language learning, they also presumed there are innate principles. There is great debate on how input can have an effect upon language development. Chomsky (1980) supported a nativist approach in which input was not connected to acquisition. He argued that language is a cognitive ability with its own rules of grammar and that it could not be analyzed in terms of conditioning. Also, he asserted we are born with a device in our brain for the acquisition of language. As maintained by Chomsky (Bourne, & Ekstrand, 1973) babies are born knowing the principles of language before saying their first word. This group of principles is called "universal grammar". He claimed all languages are built on these bases, so a baby can learn any language. Children not only imitate people around them, they can also create sentences by deducting them from the rules of the language. As a result, it is not important for an infant to be exposed to a correctly formed language in order to learn it. Children learn the grammar that allows them to create many sentences and expressions. In addition, they use their innate mental structures to construct an abstract system of rules of language. All this was opposed to the behavioral stance that indicated that language is acquired through reinforcement only. For Chomsky (1965), language and thought are different. Furthermore, he argued that people's knowledge of language syntax has biological bases (Chomsky, 1980). Creativity in language is achieved through syntax, because it allows us to combine words in novel ways. We commonly produce and understand sentences that we have never encountered before.

Various frameworks have been used to conduct research on how blind infants acquire their first language. According to Perez Pereira and Conti-Ramsden (2004) there are three distinct perspectives that try to describe and explain this process. The first one says that cognitive development makes language acquisition possible. It is closely related to how Piaget conceived language and thought, and to his stages of cognitive development. For

Piaget (1977) almost all children develop many different qualitative representations in a similar order, until they come to a conception of reality. Dunlea, Andersden, and Kekelis are some authors who have taken this stance for the study of language in blind kids. Perez Pereira (2006) adds that for these authors, sensory experience is basic for the configuration of concepts:

> Children form their first conceptual representations of objects, animals, etc., based on physical features of their appearance (size, color, shape). Since blind children have limited sensory experience, the development of related concepts will also be restricted; hence, for example, they will use common names not with a variety of copies of that concept (for example, dog), but circumscribe their use to a specific specimen (a stuffed puppy with which they play), lacking the generalization in the use of words that is typical in children whose words have underlying conceptual meanings. (p. 163)

The term verbalism means many blind infants use words without being sure of their significance or without knowing its concrete referent. This concept has been subject to debate also because it confuses the meaning of a word in its use and its definition. "Verbalism has been controversial in the education of blind kids in particular, with some experts recommending that visually based language and ideas constructed around visual imagery should be avoided." (Başaran, 2012 p. 218). Blind children might not be able to develop certain concepts; nevertheless, that does not mean they cannot learn a language properly. Adaptation helps blind infants use the flexible structure of language. Frequency of verbalism used by a blind child is not affected by the degree of vision. Another important fact is that blind and sighted children employ language in a similar way. (Başaran, 2012).

The second perspective considers imitation and lack of creativity as the main characteristics of the speech of a blind infant. This viewpoint claims that some language

constructions of blind kids lack pragmatic adequacy. For its supporters, blind children repeat forms of speech they have heard before even when they might not be adequate for the situation. They also argue this kind of language mirrors an absence of creativity in the acquisition process. (Perez Pereira & Conti-Ramsden, 2004).

The third perspective has a socio-cognitive approach and recognizes there are different styles in the acquisition of a first language. Social context learning plays a paramount role in its emergence. Expressions and the realization of intentions in defined contexts are strongly linked. As reported by Peters (1994, cited in Perez Pereira, 2008) in relation to blind infants:

> … hearing a certain expression that is used in a particular circumstance (for example, "to throw the ball" when playing to throw and collect a ball) is of great help, due to the absence of visual information about the context of the activity to perform, the expression associated with this circumstance allows the child to recognize it easily (p.165).

Linguistic expressions related to a situation also permit the speaker to reveal an intention.

Peters, 1977; 1983; Pine & Lieven, 1993; Lieven et al, 1997 (in Perez Pereira, 2006) suggested two styles in language acquisition: analytical and Gestalt. Children with an analytical style first analyze the expressions and then they utilize them. That is why they combine determined words until they have previous knowledge of their use. They do not tend to use fixed sentences or imitate. On the other hand, children with a Gestalt style use formulas or phrases without prior linguistic knowledge of the structure. Stereotypic speech, verbal routines, and fixed sentences are usual in the language of these infants. Stereotypic speech means kids repeat chunks of maternal/paternal speech. They do not study carefully those chunks at first, but they use them in a certain context related to its meaning. (Pérez Pereira, 2006).

Blind children from birth tend to copy more than infants who can see. “Several recent investigations have found that blind people have a greater auditory memory (Amedi et al 2003, Röder et al, 2003) and a higher speed of phonological processing (Stevens & Weaver, 2005) than those who can see.” (Perez Pereira, 2008, p. 168). There are some neuro-linguistic characteristics in blind kids that facilitate this. “Several recent investigations have found that blind people have a greater auditory memory (Amedi et al 2003, Röder et al, 2003) and a higher speed of phonological processing (Stevens & Weaver, 2005) than sighted people.” (Perez Pereira, 2008, p. 168). With these features, blind children can recall expressions and later repeat them in similar circumstances.

Blind infants from birth have a more difficult cognitive and pre-linguistic communication skills development. They lack of gestural communication behaviors and prelinguistic vocalic communication. Gestures of indication or petition, protoimperatives (requesting something to someone), or protodeclaratives (sharing interest in something with someone) are other elements they do not present. Blind kids also have fewer opportunities to communicate due to the kind of information about events, objects, or people they perceive. Joint attention, intentional reading, and imitative cultural learning are essential requisites for language acquisition. Joint attention refers to the way infants and their parents, or care givers, share the same focus of interest. It is indispensable for communicative and linguistic development. “…there is no doubt that the lack of vision affects in an important way the establishment of this essential ability.” (Perez Pereira, 2007).

Perez Pereira & Conti-Ramsden (2004) also regard that, despite the difficulties that blind children have acquiring important elements of language; their development is not delayed in comparison to infants not having disabilities. “Many blind children without an associated disorder have full development of language in the absence of visual information, and this,

precisely, would not be expected given the starting conditions of blind children." (Perez Pereira, 2008 p. 163).

For Burlingham (1961), Wills (1979), Andersen, Dunlea & Kekelis, (1984) the use of formulaic speech is not a productive strategy and does not help in language development. On the other hand, Perez-Pereira (1994), Castro (1997) and Peters (1987, 1994) find formulaic speech helpful in linguistic, cognitive and social development. (Smeds, 2015).

Warren (1994, cited in Guinan, 1997) summarized the findings of various researchers; such as, Fraiburg, 1977; Garman, 1983; Mulford, 1983; and Werth, 1983, on the acquisition of a first language by visually impaired children:

1. Visual impairment does not seem to interfere with the development of basic interpersonal communicative skills.
2. The lack of vision can affect the social use of language, such as, determining if one's conversational partner is paying attention, initiating a conversation, determining the interest level of a person to whom one is talking, and finding acceptable ways of interrupting.
3. The meaning of words for sighted children is richer and more elaborated than the meaning for children with visual impairment. Vision seems to allow children to generalize and broaden semantic associations.
4. The inability to determine what a pronoun refers to is a language delay specific to blind children.
5. It is difficult to separate the formation of language from the formation of basic cognitive concepts. Language is the medium of thought; positional, spatial, classification, association, and even body concepts emerge as a function of language. (p.2)

After studying language acquisition in blind children and observing it is satisfactory, Pérez-Pereira and Conti-Ramsden (2004) agreed on the existence of compensatory mechanisms that aid in that process. For example, they are particularly aware of language, and pay more attention to it than children who can see. They also use strategies, such as; routines, ready-made phrases, modeled speech and chunking. Besides, they repeat, imitate and use their verbal memory constantly. Perez Pereira (2006) presented data showing that modeled speech has a progressive role in children's language development.

2.3 Teaching English to Blind Students

For Arenas (2012) learning foreign languages is not hard only for a person with vision impairment. Memory and oral ability are the things people with VI rely on to learn them. She states it is possible for people who are blind to learn more than one foreign language because their physical condition makes other skills (memory, ear, and attention) improve. "Those whose main impairment is visual must therefore achieve the most, given the enhanced aural, concentration and memory skills…" (Couper, 1996, cited in Arenas 2012, p. 9). For Santana (2003, cited in Arenas 2012) visually impaired students have good listening and writing in skills.

There are several challenges that are faced by students with vision impairment when learning a second language. On the authority of Bacha (2007):

> The blind need special attention in having material read or taped for them and having access to special technology for written work. They also need more time for assignments and tests done in class under exam conditions. Conferencing time with their tutors is also very important for further clarification of material and work on assignments. Given these hurdles, many institutions are often not prepared to meet the problems and challenges, specifically at the university level. (p. 268)

In spite of all these obstacles, equal learning opportunities have to be provided to everyone. Consequently, learners with VI should be able to partake of favorable circumstances for development. Over the past years, it has been special education schools that have been almost exclusively in charge of the instruction of visually impaired people. According to Bacha (2004):

> At the university level, while some blind students have been included in regular classrooms, the work has been mainly in scientific subjects (Windelborn 1999, Bonicamp 2000). The teaching of English has been a challenge; but Seng (2005:1) says. 'Of all subjects teaching English to the blind is the easiest' (p. 269)

Nevertheless, only a few institutions include blind students in their regular classrooms. Sacks and Silberman (1998), and Thomas Ozel (1998, 2000) (as cited by Bacha 2004) recommend that teachers use the other intact senses of blind learners. They add:

> Although visualization is an important facilitator of comprehension and learning, visually impaired learners are able to make use of visualization through the verbal descriptions of others and the use of tactile materials through objects, raised pictures, and mounted material. (p. 268)

Kashdan, Barnes, & Walsh, (2005) based their research on the challenges of teaching ESL to visually impaired immigrant or refugee students. The main difficulties the researchers identified were related to; mainstream programs and responses, tutor recruitment and training, student recruitment and responses, student intake and assessment, responses when serving students, tutor intake and responses, and matching tutors with students. They also considered the findings of Howard Gardner (1993, 19994) on the multi-sensory aspects of learning and the concept of multiple intelligences and they remarked:

> Gardner notes that learning a new language involves more than linguistic intelligence; we learn a new language through a variety of intelligences focused on meaning and communication. Moreover, many researchers have found that when learners explore concepts or topics through a variety of senses, using their multiple intelligences, they are much more likely to be interested in and to remember what they have learned and to be able to use it in flexible and innovative ways in new situations. This is particularly true for adult learners (Viens & Kallenbach, 2001, 2002). (n.p.)

Gardner (1983) reports everyone learns using multiple senses no matter if we are only aware of using or give merit to one or two senses.

As stated by Nikolic (1987) it is possible to teach a child who is visually impaired or blind how to speak, read, and write in foreign languages by adjusting the techniques and materials and taking advantage of other elements such as good memory and hearing. He affirms that, even though perception is affected by blindness it does not mean there cannot be a linguistic and verbal development. He claims that:

> There is no specific method for teaching foreign languages to blind and visually impaired persons. Rather, teachers should choose those characteristics of existing methods they think will work best with a student and that will help them engage in the learning process" (p.63)

In his opinion**,** visually impaired apprentices are better at learning languages than the average student due to their elevated aural sensitivity and memory training. He also considers all students should be treated equally in spite of their disability. He mentions that, when teaching blind learners, there is no particular special method or approach. Nonetheless, he considers of great significance the proper adaptation of instructional material. Aikin Araluce (2002) explains:

> In his view, adapting material means changing it in order to compensate for absent or deficient sight by promoting the use of the remaining senses, and not –as some educators mistakenly think- making an adjustment for mental development. He points out the importance of fluent reading and writing in mother tongue Braille if the student is to progress satisfactorily in the literacy skills of the target language. Braille´s basic phonic structure translates across most language codes, so proficiency in Braille is transferable from first language into English. (p.83)

Nikolic (1987) highly supports the teaching of modern languages to students with vision impairment in mainstream institutions. He emphasizes the importance of the acquisition of phonetics and accents because of the ability of people with vision impairment to obtain them only by ear and not needing an explanation of the pronunciation of the sounds. The following are some essential elements for successful foreign language learning in blind and visually impaired students he found: the need for a monolingual environment; awareness that blindness does not hinder the learning of a foreign language; tactile stimuli; and attention to intonation, stress and rhythm

Bacha (2007) does not agree with Nikolic who claims there is a need for a monolingual environment. He says that students in Lebanon learn English and French as foreign languages, but also use Arabic in elementary classes. As a consequence, they constantly code switch. He remarks that another element that favorably contributes to foreign language learning in blind students is their particular features. “Research indicates that the blind are highly motivated and enthusiastic, have excellent memories, deep concentration and good hearing, and this helps them in the L2 learning situation” (Sacks and SIlberman 1998; Thomas-Ozel 1998, 2005 cited in Bacha, 2007). Jespersen (1961 in Nikolic, 1987) affirmed that blindness does not obstruct the learning of a foreign language, because it is learned by the sense of hearing rather than by that of sight. Bacha also stated that, according to some researchers, blind

students fail to learn a foreign language due to lack of adequate support and assistance from their teachers. One important part of the learning process is that of tactile stimuli. "It is obvious that the more all the senses are involved, the better the learning environment and thus performance" (Thomas-Ozel, 1998; Kashdan et al 2005; Seng, 2005 cited in Bacha, 2007, p. 272). As maintained by Bacha (2007), blind students are highly perceptive of intonation, stress and rhythm. Due to the fact that they cannot examine facial expressions, they use those elements to comprehend the attitude and pragmatic meanings of words.

Nikolic (1987) remarks there are two methods that have been confirmed as very effective for blind students: the oral communicative methods and the audio-visual and structural global method (AVSG). The most useful exercises in these methods are the listening comprehension ones. They involve dialogues, role-playing, lectures and dramatization. These methods produce a desirable result since students use all their other senses. Oral, audio and tactile materials are included in the oral communicative method.

The AVSG centers its attention on the verbal engagement of the student. Their memory and their aural and verbal skills are great aids in learning the language. Bacha (2007) suggest the following activities:

1) Instructional materials: Audio materials are very helpful for blind students. Nonetheless, he claims live voices are more effective due to personal and social contact that provides support and motivation. Blind students can also use the dialogues in films for further exercises.
2) Group work: These activities develop cooperation and a better atmosphere.
3) Teaching reading and writing: these are probably the most difficult skills to develop. Teachers should keep in mind that blind students require more time to read the material and write their assignments.

Guinan (1997) observed that, opposing to the contemporary theories on literacy and language learning; teachers strongly use the aural-oral input when teaching ESL to students with visual impairments. The researcher also talks about the age of a second language acquisition:

> Contrary to public opinion, studies of the relationship between age and rate of learning a second language have shown that older students handle academic language tasks (reading, acquiring vocabulary, and writing expository prose) in a second language (Tempes, 1982) faster than do younger students. What is significant for vision teachers to remember is that research supports the notion that younger students who can acquire language naturally should be exposed to experience-rich, task-based activities that focus on meaning, rather than form. The explicit correction of errors is discouraged; repeating and modeling the appropriate responses have been demonstrated to mirror more accurately the natural interactions of children while acquiring language at home and in the community (Ovando & Collier, 1985). For older students, an appropriate balance between form and content should be maintained. (p.4)

Guinan (1997) affirms that the Czech Republic, Germany, Israel, and The Netherlands are the countries whose graduates possess equal oral and written skills in English. She considers the following factors to foster the development of complete linguistic competence:

> 1. The expectation that visually impaired students will go on to further education or vocational training and the provision of opportunities to do so
> 2. The ready availability of instructional materials in Braille or large print
> 3. The limited reliance on "listening first," or primarily oral, means of assessment and evaluation

4. The reliance on translation as a means of acquiring vocabulary, but not as an instructional method

5. Access to appropriate Braille-print conversion technology

6. English teachers who are able to read Braille in schools for the blind or Braille teachers who have learned ESL in regular education classes. (p.10)

She concludes that ESL teachers with students with visual impairments should know how to produce teaching materials for them. Technological support and training, as well as time, are indispensable, but this will result in a better instruction. "Research is necessary to confirm the assumption that sighted and visually impaired students have similar patterns of acquiring a second language" (Guinan, 1997, p. 10)

Morrissey, a blind teacher, was probably the first person to publish an article about how a foreign language is learnt by people with vision impairment. He regarded learning a second language based primarily in hearing and having little or no relation with the sense of sight. In the 1960's the *Office of National Rehabilitation* in the United States of America started a program to teach languages to blind people. Aural-oral was the method employed which emphasizes the good command of language sound system previous to the introduction of vocabulary and grammar. (Aikin Araluce, 2002).

On the other hand, Guinan (1997) proposed an ESL method for teaching visually impaired learners. She refers to Krashen's input hypothesis where teachers provide meaningful linguistic data. Instruction is based on the i + 1 level which means input is intelligible at its most, and only a small part is unfamiliar lexis. She refers to the communicative methods of instruction as effective if teachers have training in education of students with VI and ESL. She adds ESL teachers must produce and customize their own teaching materials in Braille. Besides, she recommends further research to ratify the premise that both sighted and visually impaired apprentices acquire a second language in analogous ways, but stated that they have

dissimilar needs. She also supports the teaching of all four skills and criticizes the aural oral method for supposing a student must champion reading and writing only after mastering speaking and listening skills.

According to Basaran (2015), previously carried out research shows that visually impaired and sighted pupils interact and learn in different forms. Also, students with VI use verbalism as a compensatory strategy when learning a foreign language. She also mentions there are no studies that have addressed the techniques and materials EFL teachers employ to teach visually impaired learners. Only a few studies have focused on finding resemblances and divergences in the ways sighted and blind people learn a second language. One example is that conducted by Smeds and Kjellberg, 2003, 2004. As a consequence, information referring to this area is scarce.

For Couper (1996), communicative teaching methods could seem accessible to pupils with VI. However, they frequently depend on visual stimuli. She cites M. Rhyne (1981):

> The visually impaired student who learns a foreign language will require few, if any, special adaptations in the classroom. The audiolingual method now being used by many foreign language programs is particularly suited to the visually speaking. (p.6)

Nevertheless, not all researchers agree with Rhyne. Couper (1996) wanted to investigate whether blind and visually impaired children could be regarded as "gifted linguists." The ability to mimic and recognize aural patterns and the capacity to develop a well trained memory are some strengths of people with VI when learning languages. Couper recognizes these apprentices have great capacity for genuine intonation. The oral-aural method for second language acquisition was strongly supported by many researchers in the 1960s. "All initial training was received aurally and orally, and the students primarily had to master the sound-system of the L2 before being taught to read and write." (Smeds, 2015, p. 45)

Marshall (1968 in Aikin Araluce, 2002) notes the difficulty in electing and adjusting class materials to teach English as a foreign language to students with vision impairment. He emphasizes it is time consuming because children have to be exposed to diverse real life situations. In order to learn the language in a meaningful context, students must be able to touch and experience various objects related to the lesson plan.

Research focused in comparing speech perception in noise (sentences in white noise and words in babble noise) and accentedness in L2 speech (Kjerllberg and Smeds in Smeds, 2015) showed that it was harder for L2 learners with vision impairment to perceive speech in babble noise, but not in white noise, than for sighted L2 learners. In addition, the results reflected that the difference in accentedness between the blind and sighted L2 groups was not significant. The outcomes also implied it is possible that blind and sighted L2 learners hold dissimilar prerequisites in L2 acquisition.

Kamalı Arslantaş (2017) affirms that people with VI can learn a foreign language once their needs are met. Equal treatment, auditory input, and assistive technology are the three categories of those unique requirements. Equal treatment means that all students, regardless of their disability, should be treated in the same way. Everyone should have access to education without being discriminated. An efficient way of getting access to information for students with vision impairment is through auditory input which has been found to be more efficient for students with VI when compared to reading (Nolan & Morris, 1973 in Kamalı Arslantaş, 2017). Efficient listening skills can help students with vision impairment in their reading and communication skills. Rôder et al. (2000 in Kamalı Arslantaş, 2017) pointed out that the use of auditory tasks guarantee higher activation in occipital cortex of blind people's brain.

It is important to adapt the educational environment in conformance to the students' requirements. Aikin Araluce (2002) affirms that materials in the field of second language acquisition for learners with VI are scarce probably because it is taken for granted that they

follow the same route as sighted learners. If there is competence in their first language, then a second language will be acquired by literacy skills transfer (Cummins, 1984 in Aikin Araluce, 2002). "…blind pupils are generally reported to acquire a second language through the same methods as the sighted showing little difference in their learning process." (Aikin Araluce, 2002, p. 77)

Other researchers have found that there is a close link between language acquisition and the capacity of the verbal component of working memory (the phonological loop). (Masoura & Gathercole 1999). Papagno, Valentine & Baddeley, (1991) established a connection between language processing and working memory functions, in particular the phonological short-term memory functions which become especially relevant in the acquisition of new vocabulary. Phonological short-term memory advantages have been found in bilingual children and in congenitally blind children and adults (Papagno & Vallar, 1995, Hull & Mason, 1995; Röder & Neville, 2003; Swanson & Luxenberg, 2009; Rokem & Ahissar, 2009 cited in Smeds, 2015). This brings to mind that the development of the phonological short-term memory can be influenced by experience and use.

Research on how students with VI acquire a second language still needs to be conducted. According to (Aikin Araluce, 2002) one possible reason is:

> …because there is no evidence that their learning process differs in any way from that followed by their sighted counterparts; some authors even contend that blind students are often more talented for language than average, due to their memory training and aural sensitivity. (p. 90)

Problems are derived from the exclusive use of textbooks since these are, generally, greatly visual.

Smeds (2015) conducted three studies. After summarizing the results of all three, she arrived to the conclusion that there are advantages related to memory in blind people; such as,

phonological short term memory and recognition memory, which are very important for learning a second or a foreign language. “These two memory functions seem to be inextricably entwined processes of second language acquisition, and they are both associated with language learning talent.” (Smeds, 2015, p. 185) She asserts that a blind person has a different neurological development which results in favorable cognitive circumstances for second language acquisition.

Finally, as stated by Muñoz (n.d.) students with VI use their first language as a base for learning another language. First and second language acquisition processes are alike starting with simple sentences that later become complex. Mistakes mirror their first language rules.

2.4 ICT for Students with Visual Impairment

Everyone is entitled to equal opportunities in education. Social class, ethnicity, background or physical disabilities cannot determine the type of education a student receives. According to Bocconi, Dini, Ferlin, Martinoli, & Ott, (2007):

> Students with disabilities have, then, the right to expect the same standard of education as their schoolmates and, in this view, they also have the right to access and use mainstream educational tools, including ICT based ones, which are generally referred to as “e-learning tools”. (p. 491)

For the World Health Organization, (World Health Organization. The International Classification of Diseases, 10th Revision, 1993 in Drigas & Ioannidou, 2013) about 314 million individuals are visually impaired worldwide. The group of individuals with a visual impairment that are using technology to access information is becoming every day larger. “Information and Communication Technologies (ICT) is a general term which refers to all kinds of technologies that enable users to access and manipulate information.” (Drigas & Ioannidou, 2013, p. 41). ICT are also tools that make knowledge and learning resources

accessible. The use of technology can help defeat learning barriers. Asabere and Enguah (2012, in Çakici, 2016) defined ICT as:

> …the tools, facilities, processes, and equipments that provide the required environment with the physical infrastructure and the services for the generation, transmission, processing, storing and disseminating of information in all forms including voice, text, data, graphics and video. Some examples of ICTs are; IWBs, computers, computer assisted language learning (CALL) software, office applications (word, PowerPoint, drawing tools etc.), the Internet – websites and downloadable software, commercial course book CD-ROMs, DVD players, mobile phones, electronic dictionaries, digital cameras and videos, DAT recorders, document cameras, data projectors. (p. 74)

Henessy, Ruthven and Brindley (2005, in Çakici, 2016) identified three mayor groups that the term ICT includes: Hardware, software applications, and means of telecommunication and information systems. Desktop and portable computers, projection technology, calculators, data logging and digital recording equipment all belong to hardware. Generic software and multimedia resources are examples of software applications. The Intranet and the Internet appertain to the means of telecommunication and information systems.

There are several reasons to introduce technology in education. Hawkridge (1990, cited in Pelgrum, W. & Lead, T. 1991) obtained four reasons: social, vocational, pedagogical and catalytic. The social reason states that learners must be prepared to function properly as citizens within a society full of technology. The second motive, the vocational, regards apprentices must be ready to work as professionals within a technological society. The pedagogical cause tells us that technology can improve the instructional process and learning outcomes. The last reason, the catalytic, is related to the possibility of schools improving when

introducing technology. It means that the use of technology can emphasize on the teaching-learning and problem solving processes, and give less importance to fact memorization. Other effects of technology introduction are greater administrative efficiency, and vast collaboration among apprentices.

Anohina (2005, cited in Bocconi et. al. 2007) provides the following definition of e-learning:

> It is a process that "takes places via any electronic medium". In a global perspective, such a term refers, then, to any educational process making use of technological/electronic media and applications such as: "web-based teaching materials, hypermedia in general, multimedia CDROMs, web sites, discussion boards, collaborative software, e-mail, blogs, wikis, computer aided assessment, educational animation, simulations, games, learning management software, etc…(p. 493)

E-learning and ICT are closely related. E- learning refers to the employment of modern technology; for example, computers, digital technology, networked digital devices and associated software, and courseware with learning scenarios, worksheets and interactive exercises that make learning easier. In ICT the computer plays a fundamental part. "The utilization of ICT in education has recently started to be used in the language learning.

The appropriation of technology in education at university level has been considered from two approaches: "Learning from Technology" and "Learning with Technology". (Jonassen, Kart & Yueh, 1998). In the technology learning model or learning from technology, students are passive because technology is considered only a way of transmitting information. In contrast, in the model of learning with technology pupils are active in their learning process since technology is viewed as a tool that allows the construction of knowledge. There is plenty of research evidence that affirms that learning does not improve

by just adding computers and the Internet to the routine classroom. (Cuban 2001 in Adams & Brindley 2007).

ICTs in the classroom have certain singularities. Formalism, storage, transmission of information, interactivity, dynamism, multimedia, and hypermedia are the seven main characteristics identified by Martí (2003). The interactivity feature arises from a two-way relationship between the user and the information issued by the ICT. Another important characteristic is that of dynamism which Montes, & Ochoa, (2006) describe as follows:

> … this refers to the possibility that they have to establish themselves as means to represent the process of transformation of any phenomenon, of information that is transformed over time, allowing to visualize on the screen the moments and parameters of said transformation and therefore realizing of the procedural aspect of reality. (p. 88).

Simulations are possible because of this quality. Some advantages are that the situation is very similar to reality but it is generated faster, cheaper and without the dangers of reality. The multimedia feature permits simultaneous creation of representative formats combining image, sound, text and numbers, among others.

In the model of learning with technology, the ICT are tools that favor the construction of knowledge. Learners use advanced thinking skills when using ICT to solve problems. For Martí, (2003) ICTs are not mandatory when solving problems, but they enrich and create new situations. Consequently, problem-solving scenarios similar to those of real situations arise and, as sated by Jonassen et al. (1998), they improve learners' understanding and allow the transfer of knowledge to new situations.

The appropriation of ICT in university education has been described in three levels: knowledge, utilization, and the transformation done by educators. These three categories of analysis were adapted from the appropriation model of cultural practices of Orozco, Ochoa

and Sánchez (2002). They have features that describe the appropriation of technology as to what educators think about the use of technologies and what they do with them. Knowledge refers to the idea teachers have about technology and its uses. It covers from simple description to generalization to various environments. Utilization is related to the usual use of educational practices that imply appropriation of ICT. Transformation relates to the change made in the exercises that involve the use of technology within the classroom.

In the opinion of Barraza (2005, cited in Pinzon and Guerrero, 2018), there are two domains of innovation in education: new and improvement. The domain referring to new means that something has not been created before so it is unusual. The improvement domain keeps a relation with the previous one and it implies something needs to be changed to become better.

Research suggests that "institutions that lag behind in integrating technology will be unable to meet the needs of knowledge based societies and as a result will not survive the change in paradigm of education" (O'Neill, Singh, & O'Donoghue, 2004, as cited in Troudi, & Mahrooqi, 2014, p. 1). The use of ICT allows learners to become the center of the lessons. It also increases motivation and favors practice outside the classroom. Troudi & Mahrooqi (2014) claim:

> It is but natural that if instructors lack skills in using technology, they will opt not to use it at all even if it is available. In addition, teachers' attitudes towards technology use in the language classroom have also been found a main determiner of the degree of technology integration in the curriculum and of its success (Albirini, 2006; Al-Senaidi, Lin, & Poirot, 2009). Similarly, learners have to have the right disposition and attitudes towards the use of e-learning or any online sources. However, research has found technology use in language instruction appealing to students as they are digital natives. (p.2)

However, accessibility and usability of technology can sometimes be a problem. According to Hersh (2014):

> Accessibility is about the system input and output enabling particular (groups of) users to use all system facilities, whereas usability is about them being able to do this effectively, efficiently and with satisfaction. In addition, it is important that ICT is used to support accessibility of all types of learning to disabled people rather than as an excuse not to make face to face learning accessible. (p. 19)

Mobile-assisted language learning (MALL) is a trend that unites digital technology and language learning. "MALL broadly refers to anytime, anywhere language learning activities that undertake through mobile devices without being limited to a physical location or a determined time"(Kukulska-Hulme, 2009; Kukulska-Hulme & Shiled, 2008 cited in Gonulal, 2019). Spontaneity, individuality, and flexibility are some advantages that MALL offers. They are also personalized and can promote self-paced learning. (Kukulska-Hulme, 2009). In the opinion of Kukulska-Hulme and Shield (2008) MALL is different from computer-assisted language learning because of its use of personal, portable devices that permit new options of learning, highlighting continuity or spontaneity of access and interaction across diverse contexts of usage. They add:

> Conceived in this way, mobile learning seems to belong more to learners than it does to teachers, although we know that most learners will struggle without a teacher's direction and guidance. So far within MALL there is little published evidence of approaches that are not teacher led, although there are some signs that this is beginning to change. (p. 162).

According to Dörnyei (1994 in Gonulal, 2019), motivation is greatly influential in learning a new language. "…a learner with high motivation to use technology may develop motivation to learn a language. In the same way, a learner with high motivation

to learn a language may want to utilize technology to reach his or her goals." (Gonulal, 2019, p. 310). Mobile technologies make learning to be more related with the real world. "…contrary to more conventional and formal methods of learning, MALL provides opportunities for learning 'out in the world'" (Brown, 2010, as cited in Gonulal, 2019).

Jonassen (1998) encourages using certain application programs as cognitive tools, which he calls Mindtools, in order to engage and enhance learners' thinking. "Mindtools, therefore, are computer applications that require students to think in meaningful ways in order to use the application to represent what they know." (Jonassen, 1998, p. 3). The best way of using a computer is as a cognitive implement. "Cognitive tools are both mental and computational devices that support, guide, and extend the thinking processes of their users." (Derry, 1990 in Jonassen, 1998). For Jonassen (1998) Learners are not controlled by technology. Instead they get involved in a relationship where the student ameliorates the capacities of the computer and the computer improves the student's thinking and learning.

Our world is basically visual; therefore, materials, techniques, and methods created to satisfy those necessities are insufficient. Still, they cannot be employed interchangeably to teach sighted and blind students. The same access for everyone to the curriculum has to be assured.

Disability, race, religion, and class are some of the reasons why people are excluded; yet, discrimination and obstacles have no place in education. Inclusion signifies unprejudiced education that can satisfy the demands of all. Visually impaired students must receive education that fosters independence and promotes their success in society.

Chapter 3: Methodology

3.1 Introduction

It has already been stated that this study has a qualitative research design. This is a single subject case study of a student who is blind and is currently majoring in English Language Teaching at the Languages Faculty of BUAP. Other participants were two of her former ESL teachers and her ESL teacher at the time of the study. Ethnographic methods such as, interviews and observation were used to gather data. I conducted participatory observations of her ESL classes. Field notes were taken during the observations. Afterwards, those notes were used for evaluation and to gather conclusions. Following the approach, all the participants of the study were interviewed. The interviews were recorded, transcribed, and analyzed.

As mentioned in chapter 2 tutoring and mentoring were provided. The participant and I met twice a week for a two hour English lesson. In total, there were twenty-six sessions from January to May. I wrote field notes during and after each session. I used those remarks to identify areas of opportunity, and patterns what could help me develop further activities and tasks. Class activities were designed so that her teachers could use them during their English lessons too. The present chapter will describe the ways the data was collected and analyzed. It is not an intention to draw general conclusions from this single case study.

3.2 Participants

3.2.1 The student. A conversation took place at the Languages Faculty of BUAP. Its purpose was to get to know the student better. She was introduced to me by Dr. Tapia. The talk was in Spanish. The questions were prepared in advance. The following is a presentation of the participant with the information gathered.

The participant was born in Papantla, Veracruz. She moved to Puebla when she was 4 years old. For her elementary education she attended a school called C.A.M. (Centro de

Atención Múltiple) Club de Leones. She was six when she started school. There, she learned very important elements for a blind person: how to write and read in Braille, and how to use a cane. She enjoyed her time there. She did not have any problems given that everything was adapted for people with a disability. The participant did not face any difficulties with her teachers either. She said everything was easy for her. Later, she attended a distance learning secondary education program (telesecundaria). She was included in a classroom with sighted students. Afterwards, she studied at 2 de Octubre High School which belongs to BUAP. She is currently majoring in English Language Teaching at the Faculty of Languages of the BUAP.

She had her first English lessons when she was in middle school, but she said she did not understand that much. She thinks she took a two hour lesson three times a week, six hours in total, during all three years. Some days she had a two hour lesson and, some others, a one hour class. She had a professor who said she would be really good at learning languages because of her listening skills. When she was in high school she took her English lessons more seriously. She recognizes that some teachers do not know how to work with students with a disability. Actually, none of her teachers have been cognizant on how to teach a blind student, but she thinks that is normal. Nonetheless, there are some teachers that because they do not know how to, they do not want to work with her. That is why she felt some of her teachers in high school rejected her, or were not willing to teach her. There were other teachers who even preferred to give her a 10 without doing anything. It was until high school when she had a teacher who was really interested in teaching her English. Nonetheless, she only taught in the basic levels. When she was in the more advanced levels she attended those teacher's lessons anyway. The educator took some time in between her other students' activities to teach the participant. She was the first person who really taught her English and made her experience better.

She has always had many difficulties with the fact that most teachers use books or the program is based on one. Her teacher from her first semester was, in her opinion, really good. She considers herself more of a kinesthetic person rather than an auditory one. She prefers activities where students can move instead of those where she just listens to a person talk, because she gets bored. That teacher made them play games, or read so she regards her as a very didactic and dynamic person. She liked her lessons and was able to comprehend everything very well. The professor was very understanding too. Even when she spoke all the time in English she did it slowly so that everyone could follow. She knew not all the students had a very high English level.

Another issue she has to confront is students are required to work on a platform to which they access with a password. Everyone has to take exams there and for her, that is very complicated.

The participant decided to major in English Language Teaching insomuch as she was motivated by many people. She has liked the radio since she was a child. Consequently, she first wanted to study Communication Science so she could work in that field. Her teacher from middle school always told her she would be really good at studying languages, and her high school teacher encouraged her to major in languages too. Her family supported that idea as well. Then, she realized she liked the thought. She was aware it was not going to be easy, but she took it as a challenge. She chose BUAP for the fees and also because she was already at a high school that belonged to BUAP. However, she had to take the admission exam anyway. Hers was oral and it ended up being longer than the regular one.

She really appreciates that, at the Faculty of Languages, they have adapted many things for her and her learning style. They put tactile paving to help her know where she is going. The laying of this system coincided with her arrival to the faculty and it has been extremely useful. On the other hand, something she would change about the faculty would be that

professors should only concentrate on teaching. Some of them cancel their lessons because they have to fulfill other activities that are not related to the academy. When they call off important classes; such as English, the most affected ones are the students, even if they are good and study by themselves. Her favorite subjects are Language Acquisition and Materials Workshop. Her least favorite class is Teaching Methods.

The biggest obstacle she has to face at university is related to the use of textbooks. Yet, people at the Faculty have done a lot of things to help her and are always willing to adapt for her. The participant recognizes that books in Braille are very beneficial for her. However, another important problem is that letters in Braille occupy more space than the other ones. As a result, more paper has to be used, and page numbers do not correspond making them hard to find. There are students, who are doing their social service (a requisite in Mexican education system to graduate), at her disposal. During her classes, one of these students accompanies the participant and helps her with some activities; for example, she reads the book for her instead of spending time looking for a page.

She confronts other difficulties when doing her homework because, occasionally, she has to use the book too. Then, sometimes she needs someone to read for her too. From time to time, she does not do it due to all the obstacles. Nonetheless, the coordinator will get someone to help her in the afternoon with school work and that way she will not fall behind with her studies.

She has talked to some other students about teachers who only use the book. They all find that boring. Some professors do not make sure students are learning or understanding what is being taught. In some classes, students just spend their time answering book exercises.

The participant is also studying German. Her teacher works similarly to her teacher in high school. She explains things to her individually, works with her or adapts the activities. She never asked for that, but she really likes the fact her teacher does it. Her German

professor had never worked with a student with a disability; nonetheless, somehow, she knew that was a good way to do it. They sometimes ask a classmate to help her, especially if they are friends. She thinks other students also need to work and cannot spend all their time explaining material to her. She likes it when professors approach her and are willing to teach her. She thinks I could help her creating material for her. She would prefer I become her tutor and that we work together principally because she has a lot of questions

I asked her if she used any apps. One of her friends who is blind recommended Duolingo. She has not downloaded it yet. We will try it and see how it works for us.

After graduating she would like to be a teacher and work with children. First, she wanted to become a translator. She still likes it, but now she would like to become a teacher. Her materials teacher has made her adapt everything to blind people. On the other hand, she has also asked her to develop materials for sighted people, so that she can teach students with and without disabilities. The participant follows the regular courses as the rest of the students. She also has the same workload.

3.2.2 Teachers

3.2.2.1 Teacher 1. Teacher 1 wanted to study English from the beginning. She started working as a high school teacher a year before she graduated. There, she learnt a lot about discipline and how to manage a group. She did her social service at the *Círculo Infantil* BUAP. She worked at a bilingual school for five years. In 1996 she started working as a core curriculum teacher at BUAP. She graduated from the Master's Degree in Higher Education in 2000. Subsequently, she was moved to the Languages School. In 2003 she began her PhD in Pedagogical and Educational Sciences which was a joint program with the University of Camagüey, Cuba. She has worked as a scholarship coordinator and as a union leader of the Languages Faculty. She is currently the coordinator of the open learning bachelor's degree.

3.2.2.2 Teacher 2. Teacher 2 attended BUAP and majored in Translation. After she graduated she worked both as a translator and as a teacher. She had a very demanding job so she realized she needed and also missed interacting with people. Therefore, she decided to continue her career focusing on teaching.

Her first position as a teacher was in a high school. She worked the afternoon shift teaching philosophy and writing skills in Spanish. Then, she moved to the morning working period and taught English as a second language in elementary and middle school. After that experience, she started teaching adults.

She holds a Master's Degree in Language Sciences. When she graduated she started working at BUAP. She has been working there ever since.

Here first years she believed she had to let students give presentations and prepare many activities. She did not consider the learning objectives that much. She now likes to use the maieutic method where she can ask a lot of questions. She is also very analytical and she tries to make her students reflect.

3.2.2.3 Teacher 3. Teacher 3 lived and studied English in England. When she came back she took many courses at The Anglo including the Teacher's Course. Then, she majored in Teaching Languages at BUAP. She holds a master's degree in Teaching English as a Second Language.

She regards her teaching style as eclectic, but she tries to put emphasis on the communicative method. It is very satisfying for her when her former students tell her they learnt a lot when she was their teacher.

3.2.3 The researcher. I was born in Mexico City, but moved to Puebla when I was 12 years old. I have lived here most of my life. I have a BA in Graphic Design. I also hold a master's degree in Information Design. I worked as a graphic designer for many years. However, in 2001 my career took a different path. I had quit my job because I was promised some courses in the Graphic Design Department. However, they gave them to a full-time professor. A friend knew about my situation so he asked me if I wanted to teach English. That is when my career as an English teacher started. I decided to major in Teaching English as a Second Language. I am currently studying the master's program. I have always taught young adults at university level. I also taught Italian for two years and a half.

3.3 The Setting

The study will be carried out at the Languages Faculty of the Benemérita Universidad Autónoma de Puebla (BUAP). This university is the oldest and largest in the state of Puebla, Mexico. It became a public institution in 1937. The University, including high schools and all levels, has 31805 students. There are 1569 students at the Languages Faculty (Vicerrectoría de Docencia, 2009). The Languages Faculty seeks to train professionals in the area of teaching foreign languages.

3.4 Data Gathering

The main purpose was the collection of extensive data to fully understand the participant. Therefore, I used diverse sources of evidence. This allowed me to deal with a wider variety of issues According to Bogdan & Biklen (2007) researchers:

> …begin to collect data, reviewing and exploring them, and making decisions about where to go with the study. They decide how to distribute their time, who to interview, and what to explore in depth. They may throw aside old ideas and plans

> and develop new ones. They continually modify the design and choose procedures as they learn more about the topic of study. (p.59)

Then, researchers can decide on the specific aspects of all elements that they will study and focus on. They can also form further questions. As a result, data collection and analysis will become unswerving. For this study, the most important ways of collecting data were observations and interviews.

3.4.1 Field notes. Field notes are: "the written account of what the researcher hears, sees, experiences, and thinks in the course of collecting and reflecting on the data in a qualitative study" (Bogdan & Biklen, 2007, p. 118). Field notes were written during all observations and interviews. Evidence of what was going on during the participant's lessons was recorded. The context formed an important part of the observations so it was also considered, in order to have a more profound comprehension. Descriptive and reflective are the kinds of materials field notes hold. "The first is descriptive -the concern is to provide a word-picture of the setting, people, actions, and conversations as observed. The other is reflective -the part that captures more of the observer's frame of mind, ideas, and concerns" (Bogdan & Biklen, 2007, p.120).

My notes included both descriptive and reflective data. After every lesson I wrote down the notes and compared them with the previous ones. This way, I was prepared for the following lesson.

3.4.2 Class Observations. There are several manners one can use to collect research data. "The observational method usually yields more accurate quantitative data than could be obtained by self-report." (Borg, & Gall, 1983, p. 465). Class observations were based on the anthropological field-study approach. "An ethnography can be defined as an in-depth

analytical description of an intact cultural scene." (Borg, & Gall, 1983, p. 492). One of the purposes of observations was to try to know what happened in the participant's classroom. Class observations were supposed to be non participant. I tried to interact in a natural way without representing a threat to anyone. It was my objective to blend into the classroom. However, my presence was perceived by the group and I ended up taking part of the lessons.

There were no preconceived hypotheses, only tentative ones. Expectations were avoided. The questions to help me focus were based on Henry (1960, as cited in Borg & Gall 1983):

1. On what does the educational process focus?
2. What are the teaching methods?
3. How does the student participate?
4. What is the teacher's attitude?
5. Are some things taught only to some students?
6. What interrupts the process?
7. What are some limitations?

I wanted to have a broader image of the participant's academic setting and context. Observations helped me gather some data in a different environment from our regular lessons. Nonetheless, I wish I had observed more classes so that my presence in the classroom would have become more natural. I felt as if I was invading the group's territory and the lessons were altered.

3.4.3 Interviews. Another method to collect data was the interview. "…the interview is used to gather descriptive data in the subjects' own words so that the researcher can develop insights on how subjects interpret some piece of the world." (Bogdan & Biklen, 2007, p. 103). We always began with a friendly conversation. All interviewees knew the purpose. They were also assured they could tell me whether something should not be said or if they did not want

to answer some questions. Although I prepared the questions in advanced, the structure was open to changes. The main objective of all interviews was to comprehend what was on the interviewee's mind. During the study I interviewed the participant, two of her former teachers, and her ESL teacher back then.

3.4.4 Tutoring and mentoring. Before we started the program, the participant took an exam so that I would know what the opportunity areas were. I considered the results as the departure point. I was not a merely passive observer. I took the role of her tutor and her partner. During one semester the participant and I met twice a week to work together. Each session lasted two hours. This helped me design activities that could be used during her regular classes. I regarded the participant as the center of the sessions; as a consequence, her needs, concerns, questions and interests were taken into account at all times. I sought to acknowledge, cultivate, exploit and enhance her capabilities. I am aware that mistakes are part of the learning process. For me, failure does not exist in the classroom. Experimenting and working hard are the elements that allow students and teachers to grow.

Another considerable aim was to help the participant develop. That can certainly be achieved through advising and mentoring. She told me she needed someone who could give her one-on-one heed. It was my objective to increase her academic success factors and teacher effectiveness.

Mentors are also viewed as trusted counselors or guides. Mentoring is important because, with extra help and encouragement, students can lighten their burden. Besides, it improves the relationships between teachers and students; supports student's feelings of belonging, and prevents apprentices from dropping out.

3.5 Data analysis

In the case of our own lessons I analyzed the data in my field notes as soon as I finished writing them. Sometimes, the analysis was contemporaneously. However, with the class observations and the interviews I collected the data and then I examined it. **“**Analysis involves working with data, organizing them, breaking them into manageable units, synthesizing them, searching for patterns, discovering what is important and what is to be learned, and deciding what you will tell others” **(**Bogdan & Biklen, 2003, p. 157). I chose to do the lesson analysis simultaneously or right away because that allowed me to make decisions for the following lessons. That also permitted me to know what was working and what was not. Lessons with the participant helped me decide the questions for the interviews with her teachers. Not only did I use a journal, but also kept voice notes too so that I would remember for later review. Our lessons provided much information that was not academic. I analyzed the literature before I started gathering the data.

I used a coding system to categorize the data. I put the information under different codes with distinct purposes. I wanted to be aware of how the participants characterized the teaching environment and the problems they faced. It also helped me understand their perception regarding participant and inclusion. For the tasks we had in our lessons I used activity, strategy, and method codes. Then, I placed the units of data under each code. The gathered information helped develop activities, answer the research questions, and conceive a set of recommendations.

Chapter 4: Results

4.1 Overview

In this chapter I will answer the questions that guided this study. The general objective of this research was to increase participation, achievement and independence of students with vision impairment through language teaching. I wanted to aid them to reach their learning goals so that they can compete in society. The specific objectives were to provide the second language teacher the necessary resources to help these learners, to determine how students with VI learn a second language, and to establish what obstacles they face; in order to assist them in developing skills to have better opportunities.

The research question that guided this study was:

How can teachers improve language teaching to students with vision impairment in Higher Education? The response to this question resulted from the answers of the following:

- How do students with visual impairment acquire their first language?
- How do students with VI learn a second language?
- What are the most common problems that students with VI face when acquiring a second language in higher education?
- What are the most suitable tools for students with VI to learn English?
- What information and communication technologies (ICTs) can assist students with vision impairment in learning English?
- What activities can help students with VI learn a second language?

This study aimed at investigating how students with VI are taught and learn English as a second language in higher education. Techniques and activities were analyzed during the four hours the participant and I met every week during the spring 2019 term. Three of her former teachers were interviewed and classes were observed. The interviews were transcribed.

The research took place in the premises of the Languages Faculty of the Benemérita Universidad Autónoma de Puebla (BUAP). We started each lesson by the participant telling me what she had studied in her regular classes and if she had any questions. We also had a short conversation in case she had any concerns, including non academic. The book that was used as a guide was *Cambridge English Empower B1+* (2015) because it was the one she used in her target language course.

4.2 How do students with vision impairment acquire their first language?

This question has been tried to be answered in point *2.2.3 The Development of Speech in Blind Children* in the literature review section. Therefore, in this part only a summary of the most relevant ideas will be provided.

There are some matters that must be taken into account when studying language development in children with vision impairment. The degree of the disability, the cause of the disability, age at onset, additional disabilities, and the definition of blindness depending on the culture, are some of the most relevant.

Visual information takes part in language development. This becomes evident when it is challenging for blind children to generalize both word meaning and language use. However, any differences between blind and sighted children in language acquisition do not impede its development in the first ones as long as it is their only impairment. Blind children get to develop language successfully following a distinct path, but basically at the same time as sighted children. They also utilize alike words and give them equal meanings. They use, nonetheless, different strategies; such as, rote learning and Gestalt Style. This means they first use frozen phrases formulas, and expressions, but then they employ them with other elements combining them in diverse ways. In other words, they first use the language and then they

analyze it. Therefore, language development of a blind child is not that importantly affected by the absence of sight.

Imitation and modeled speech are two crucial components in language development. The Gestalt style allows them to reach creativity in their speech. Imitation here is viewed from a socio-cognitive perspective that acknowledges as indispensable acquiring a language through imitative cultural learning. Auditory memory is essential for blind children to obtain complete linguistic competence.

4.3 How do students with vision impairment acquire a second language?

An attempt has been made to answer this question in point *2.3 Teaching English to Blind Students* of chapter two. Yet, some aspects will be highlighted here, together with some findings gotten through observation.

Previous research has focused mainly on how visually impaired children acquire their first language, and how they use verbalism. Consequently, second language acquisition in blind people is a field that has been understudied. Even if children with vision impairment are part of a vulnerable population, there are not many studies on their functional and developmental outcomes regarding the acquisition of a second language.

Listening, speaking, reading, and writing are the four skills that students must master in order to communicate in different environments. Learners with VI have to face several challenges when they have to accomplish this in a regular classroom. One considerable issue represents finding material designed to teach these students. Also, they may need appropriate heed and assistance which, in occasions, are not provided. One paramount condition for learning a second language is the support and guidance of teachers.

For learners with vision impairment to acquire a second language they should have meaningful experiences, and task-based and communicative activities. The target language

should be used in the classroom as much as possible, unless understanding becomes challenging. Second language textbooks are most frequently full of visually engaging images and layout, but students with VI usually use a Braille version. Therefore, they need more time to work with them because the amount of text is not the same and Braille reading is slower. A positive aspect of Braille books is that they expose students to the written word, helping them with spelling too. Inclusion of students with vision impairment in mainstream school allows them to have access to the same opportunities as other students. Unfortunately, other sorts of material; such as, videos or movies are not frequently available for them.

During our sessions I was not able to detect any mayor differences in the trajectory that the participant and learners with no vision impairment follow. Therefore, I can say that she develops her speaking and listening skills analogously to other students with no disabilities. However, this is not an excuse for not considering her specific needs and not meeting them every lesson. The problems she has to encounter have nothing to do with her learning capacity.

4.4 What are the most common problems that students with vision impairment face when acquiring a second language?

There are many issues and obstacles that students with visual impairment have to face while attending college. They also have needs that must be covered. By analyzing the results of the interviews and class observations I was able to find the difficulties the participants in the study have to encounter when learning and teaching a second language.

4.4.1 Challenges the student has to confront. Being a university student requires good organizational skills. For a student with vision impairment it usually takes more time to handle the entire work load. The student reported the problems she has to deal with during

the interview and also throughout the time we spent together in our lessons. The following are the main difficulties she faces.

4.4.1.1 Reading. Some blind people are able to read and write using the Braille system. Letters are equivalent to characters formed by raised dots laid out on a flat surface. Reading Braille may be more time consuming than reading printed texts because words are read letter by letter and not as a complete word; therefore, pauses are more frequent. Transcribing books to Braille is a lengthy process too. Since Braille characters are larger, books produced with this system are bulkier, the lay out is different, and pages do not correspond to those of the original book. This also makes it harder to find information. The participant expressed the following during an interview:

> *Lo que pasa con los libros en Braille es que, por ejemplo, el Braille ocupa mucho mas espacio que las letras normales. Entonces mis compañeros se sorprenden porque es como de "¡miren, esta es solo la unidad 2!" y es un bonchesote, así más grande que el libro normal. Entonces muchas veces la maestra es como de: "¡Vayan a la pagina veinte!", y yo así como de: "¡Ay! ¿Dónde estará la 20?".*
>
> What happens with books in Braille is that; for example, Braille takes up much more space than regular letters. Then my classmates are surprised because it is like "look at this! It is only unit 2!" and it is a big pile of paper, thus larger than the normal book. So many times the teacher is like: "open your books to page 20!", and I am like: "where will page 20 be?"

There are no books in Braille available at the library of the Languages Faculty. Skimming and scanning are activities that are not recommended for students with VI.

4.4.1.2 Lessons. English as a Second Language lessons are usually based on a text book which commonly has numerous pictures. One of the biggest challenges she has to deal with is that most teachers base their courses mainly on the book I asked the participant about her experience learning English at the Languages Faculty, and she said: *"...aquí en la universidad pues al principio digamos que yo he tenido siempre muchos problemas con el hecho de que los maestros manejan libros o de que el programa está hecho basado en algún libro*." (Here at university I have always had many problems with the fact that teachers use books or that the course is based on some book.)

When I asked her if there was anything she would like to change in her classes, she answered:

> *... pero yo me he dado cuenta que , o bueno lo he platicado con otros compañeros, que varios maestros no lo hacen, simplemente usan el libro y llega a ser muy tediosa la clase, porque nada mas es de que llegan y abren el libro en la computadora y uno abre su libro y ya, vamos contestando. Y luego yo le decía a mis compañeros pues es que mi maestra es bien aburrida porque nada más llega y vemos puro libro y mis compañeros "pues mi maestra hace lo mismo" y como de "¡ay! ya invéntense otra cosa." Porque sí llega a ser y muchas veces ni siquiera se están asegurando de si estamos o no estamos aprendiendo o entendiendo el tema, si no que nada más vamos contestando y contestando y a ver quien entiende y quien no.* (I have realized that, well, I have also talked about it with my classmates that many teachers only use the book and lessons become very tedious, because teachers arrive, they open the book on the computer, we open our books, and that is it, we answer it. I have told my classmates that my teacher is very boring because we only use the book. So my classmates said theirs do the same thing. Sometimes, teachers do not make sure if we are learning or not, or if we understand. We only answer and keep answering exercises in the book.)

She added later in the interview: "*Insisto, la escuela está como tratando de adaptarse porque, por ejemplo, ahorita los libros ya me los traen impresos en Braille entonces ya es un poco mas sencillo*." (I insist, the school has been trying to adapt, for example, now they give me my books printed in Braille so it is a little bit easier). She continued: "*Últimamente por ejemplo a mí se me dificulta mucho hacer las tareas porque como, volvemos a lo mismo, son del libro pues necesito a alguien o que me lea el libro o alguien que o no sé*." *(*Lately, for example, I have been having difficulties with homework because, again, I have to use the book so I need someone to read it for me.)

Teachers must be aware that power point presentations or board work are not suitable for students with VI. Images and new vocabulary need supplementary descriptions. All videos should be checked before the lesson to verify they will be helpful. Students with VI should be able to decide if they want to record each lesson.

Blind children can work with tactile books and pictures. However, that is an activity that is not suitable for students of higher levels. According to Belova (2017):

> Blind people consider all imagery information useless and forget it quickly if it is not connected with their practical experience. The majority of information exists in the form of signs or words. That is why it is important to explain from word to possible image, not the other way round. The thinking process of blind individuals is connected with concrete or abstract concepts. In comparison with sighted peers, blind people cannot think using images. (p. 595)

All visual content should be orally represented. However, a written description in Braille can also be provided. The participant made a further remark regarding the book and other uses related to it:

> *Pues yo siempre tuve el problema con el libro, aparte porque, había que trabajar en plataforma. El libro que estamos llevando ahora requiere de un código para*

> *que ingreses a una plataforma y hagas exámenes ahí y ese tipo de cosas y todo eso a mi me cuesta mucho, mucho trabajo.* (I have always had problems with the book, also because one must work on the platform. The book we use has a code to access a platform and you can take exams and that sort of things, but for me it is very complicated.)

4.4.1.3 Writing production. Writing tasks require more time for students with vision impairment. Consulting bibliography can also be challenging. This should be kept in mind when setting deadlines and marking criteria. It would be a good idea if the student could know about the assignments in advance. Formative comments on her assignments should not be written. They should be made in a convenient way for her; for example, via email. Students with VI could have trouble structuring sentences and arranging their ideas. As a result, occasionally, writing assignments tend to emulate spoken texts (Ghafri, 2015).

4.4.1.4 Attitudinal problems. Collaboration among apprentices should be actively promoted. A competitive climate strongly affects integration and inclusive education. The process of discovery and autonomous learning should also be fostered. This way, students become responsible of their own learning and their motivation increases and lasts longer. As stated by Nuernberg (2009 in Selau, Damiani, & Tonetto, Oct-Dec 2017):

> Prejudiced attitudes adopted by lectures and sighted students refer to the denial of the fact that a blind student is able to learn scientific contents of a certain area and to become a professional in the area of certification. They also include the belief that the blind person is insecure, weak, dependent and defenseless, a fact that generates overprotection by classmates and lectures (or the opposite, i.e., the

> minimization of difficulties faced by the blind; as a result, no help is offered to the blind in different situations. (p.432)

Neither teachers nor students can be biased or hold negative feelings towards a certain type of student. Without exception, all students must be engaged in the lesson and be given equal opportunities to participate.

One important problem is the absence of interest in the student. The student's future participation in the labor market and her development could be strongly affected by the lack of knowledge and interest on behalf lecturers. "According to Rodrigues (2004), several difficulties students with disabilities face to be successful in college are related to negative representations lectures have regarding how these students will be able to work in the professional field after finishing their courses." (Selau, Damiani, & Tonetto, Oct-Dec 2017, p. 432)

Working in pairs or in small groups should be prevalent in language courses. Collaborative tasks should be promoted because, in that way, students can conceive more creative solutions to problems and enhance their learning. Awareness should be raised among all students in order to avoid exclusion.

4.4.1.5 Communication. Students and teachers should be able to communicate easily. Both parts must agree on which means of communication will be used. Some good options are email, smartphones, and social media. Information on notice boards is not available for students with vision impairment. Therefore, someone should be in charge of providing students with VI the information displayed there.

4.4.1.6 Tutors and teachers. Learning outcomes strongly depend on how teachers and students interact. "Students identify relationships with teachers as being among the most

important parts of their school experience. How a teacher interacts with students translates into products important to education." (Englehart, 2009, p. 713).

Learners should be regarded as the core of the lessons. As a consequence, their needs, concerns, questions and interests should be taken into account at all times. "When students' interests and concerns are part of the classroom discourse, their natural curiosity and innate drive to acquire knowledge can guide their leaning." (Englehart, 2009, p. 715). This becomes especially relevant when a teacher has a student with VI in the classroom. They should provide support and work as a link with other members of the staff. In fact, all parts should work in cooperation. Teaching should be acknowledged as an open and collaborative activity. The student told me the following regarding this issue:

> *…lo que pasa es que hay maestros que, como no saben como trabajar con personas con discapacidad y eso es normal, la gran mayoría de maestros que me he encontrado aquí y en todas partes, desde la secundaria, no saben que hacer. Pero el problema es que hay maestros que de lo mismo que no saben no quieren. Entonces a mi los maestros de inglés en la prepa me rechazaban, o algo así , no querían trabajar o habían maestros que preferían regalarme las calificaciones, así ponerme diez ya de una vez y ya no tener que hacer otra cosa.* (There are teachers that do not know how to work with people with disabilities and that is okay. The greatest part of teachers that I have encountered here, and everywhere since I was in middle school, do not know what to do. The problem is there are teachers that because they do not know they do not want to. Then, my ESL teachers in high school rejected me or something like that, they didn't want to work with me or there were teachers who preferred to give me the highest grade right away so they didn't have to do anything else.)

4.4.1.7 Mentoring. Mentors can increase students' academic success factors and teacher effectiveness. Megginson and Clutterbuck (1993) define it as "Off-line help by one person to another in making significant transitions in knowledge, work and thinking" (Bailey, Blamires, Dixon, & Robinson, 2010). Mentoring allows students to go from apprenticeship to independence. Mentors can increase students' academic success factors and teacher effectiveness. The relationship between mentor and mentee is usually based on mutual reliance, sensitivity, and friendship; consequently, it could be used as an effective alternative education strategy. She was considered as the most important element of our lessons. Empathy was a decisive component too. Even though there are many advantages to mentoring, this was the first time she had one. Some people who were supposed to help have proved not to be suitable. In the participant's case mentoring is important since she needs someone who can give her one-on-one heed.

4.4.2 Problems faced by teachers. Class observations helped show part of the challenges professors confront. Some educators recognized using the same teaching techniques and materials that they utilize for sighted students. The interviews also aided to discover other issues the faculty members have to deal with. Three difficulties were consistently reported by all three interviewed teachers: evaluation, inexperience, and staff. Parts of the interviews can be consulted in appendix B.

4.4.2.1 Evaluation and assessment. A perfect teaching situation is when effective learning occurs. There are two crucial elements for this condition: intent and achievement. When the learning outcomes were those projected to be achieved, then effective learning has taken place. Intent allows achievement to be planned, systematic, intentional and designed. A competent teacher first decides the meant learning results, and then assesses the degree to

which the goals have been reached. That is why assessment is paramount in teaching and learning.

All three interviewed teachers expressed their concern on how to evaluate the student. The most recurrent problem was related to the exams where learners are assessed linked to externally defined standards. Assessment, however, goes beyond exams and must be student centered. It is a teaching-learning process that helps to know if the learning objectives have been reached. It aids educators channel their teaching. Its maximum purpose is for the student to continue learning and to improve education.

There are several types and purposes of evaluation. Summative evaluation is used to discover what the learner knows or is capable of doing. It is called so, because teachers recapitulate what students are able to achieve. (Musial, Nieminen, Thomas, Burke, 2009). Likewise; it is an instrument, or task, used to make a judgment about the level of competence or achievement. (Chappuis, 2015). In general, it is not used to shape learning but rather to determine the progress that has been achieved over a long period.

The other kind of evaluation is called formative. It provides pupils information so that they become aware of what they can and cannot do. "Formative evaluation has no other objective than to get students to build and apply an effective system of self-regulation of their learning." (Florez, 1999, p.105). Another important purpose is to provide feedback for the learning and instructional process to continue and become better. When students receive their results, they must be able to determine what is needed to be done so as to keep progressing. In addition, it provides evidence to make informed decisions given that it helps us identify strengths, and areas of opportunity. One further aim is to diagnose the apprentice's difficulties and misconceptions. This way, professors can better understand what the learner thinks about a certain concept. An additional end is to refine a teaching program. It is important to know the problems that students face during the course and not at the end, when it is already too

late. Formative evaluation is fundamental for this goal, since it can be a key element in self-reflection and in the self-evaluation process of our teaching methods.

The most important aspect of evaluation is to help the students reflect on their own knowledge. Apprentices must understand their results and the feedback provided in such a way that further action is taken. When students track their progress and reflect on it constantly, they are paying attention to their learning; therefore, they are carrying out metacognition. Growth and self-development are imperative whereas judgments are not. When grades are no longer crucial, evaluation becomes an important part of the process of continuous and self-regulated learning. Self-regulation and metacognition are part of social-constructivist teaching. When students monitor their learning, they can see how they have progressed. When improvement is evident, students realize that effort and success go together.

Portfolios involve learners in the evaluation process and remove the fear of failure. Reflection and self-evaluation play a fundamental role in the development of the portfolio. "A portfolio is a compilation of evidence, organized and with a purpose, which demonstrates the knowledge, skills, or disposition of a person." (Musial, et al. 2009 p. 239). The selection shown tells a predetermined story. Thanks to them, teachers can get an idea of how students think, and of their performance. They are proof of self-reflection, and that effort leads to improvement. In this way, apprentices become active participants, and not only evaluated subjects.

The teachers also reported problems related to testing. They agreed that the way the exams currently are, generate problems and obstacles. Time, availability, exam design, and access were the main mentioned concerns. In order to take an exam, students have to access an electronic platform. They need a password that comes with the student’s book. If learners are

repeating the course, they can no longer use the same code. As a result, there are issues and delays.

Another considerable obstacle comes with the listening comprehension section on the exams. They usually have pictures or drawings that the student has to use in order to answer the question. This makes it complicated for the learner to take that section since someone else has to describe the pictures for her and then she can choose an answer.

Further problems were related to time. The platform where the exam is taken gives a limited interval to answer each question. Again, the student needs someone to read the questions and the answers for her; therefore, she needs additional minutes for each item. Braille should be used in all exams so that she can read the items by herself. Time should be set accordingly because reading rates when using Braille are slower. On the other hand, exams should not be the sole way of evaluation. They make hard to implement inclusive education because they do not contemplate learning differences and are greatly controlled. Alternative means of assessment should be considered. In this fashion, equal opportunities will be given to students with vision impairment to prove what they have learnt.

4.4.2.2 Inexperience. Teachers found out they were going to have the participant as a student the first day of classes. For all of them, this was their first experience teaching a student with VI. They recognized they did not know what her specific needs were. The interviews showed that teachers employed their usual techniques and methods. They all agreed they lacked of academic instruction and preparation. They decided how to teach based on their experience. None of them received formal education on how to teach a student with vision impairment or a student with a disability so they had to face the challenges substantiated on what they believed was right. They think it would be valuable to add some courses to the curriculum of the bachelor's and master's degrees programs. Two teachers

suggested having training to learn specialized strategies in order to have a better performance at work. Training guarantees, among other, that all teachers know how to handle technical and methodological issues that may appear. Additionally, it allows educators to address the student's learning needs. With proper training, teachers will also know who to turn to for assistance. Educators should have the skills to teach students with VI so that they do not add problems to their students' learning experience. They should also get instruction in inclusive education to solve problems efficiently. Teachers also mentioned communication should be improved. Ideas should be shared on how certain situations were managed to encourage the student's success.

4.4.2.3 Staff. Teachers, community service providers, *Lobomentores*, and tutors are the main figures that have been involved so far in the student's learning process. In order to graduate from a Mexican university, students most fulfill their community service requirements. This means they most work for at least six months or 480 hours to benefit society or the government. A *Lobomentor* is a senior student who volunteers to accompany other students who require it. They have to be part of the Peer Mentoring Program in order to become advisors and help other students. Every first year group gets a *Lobomentor* assigned. A tutor is also designated to each group. Tutors should guide and support students throughout their whole academic trajectory. They should also promote the students' personal development regarding knowledge, abilities, skills, attitudes and ethical values. Regardless of the many advantages, some people have not met the standards.

One further concern was a rigid curriculum. Teachers have to cover large units in a limited time. An inflexible curriculum stands in the way of putting into effect inclusive education and does not permit collaborative work among teachers. In addition, educators have to guarantee that nobody is left behind.

4.5 What are the most efficient methods to learn English for students with vision impairment?

Educational practice and research have been affected by the changing views of learning and instruction. Learning as knowledge construction is a metaphor proposed by Mayer (1998) which no longer considers the apprentice a recipient, but rather a constructor of knowledge. The cognition of the pupil becomes the focus of instruction.

4.5.1 Teaching Methods. The best method is just a myth because there is none that can work for everyone. In traditional methods, learners cannot choose what or how to learn. They are also loaded with the ideology and culture of the dominant community; so they might restrict critical thinking. Apprentices and social context need to be considered before embracing any learning activity. As educators we can improve acquisition when we find out what is best for our classroom based on our own experience. Richards and Rodgers mention Kumaravadivelu's view on certain methods:

> These Center-based (or Western) methods (such as audiolingual, communicative) have been aptly characterized as product of "interested knowledge" (Pennycook 1989)… That is, these methods highlighted and promoted the native speaker's language competence, learning styles, communication patterns, conversational maxims, cultural beliefs, and even accent as the norm… These assumptions have since come under severe strain leading to calls for an alternative to the concept of method." (pp. 18-19).

While methods are already planned and arranged, strategies are a sequence of flexible actions taken for achieving acquisition, storage, recuperation and use of information. Additionally, a strategy is the application of a set of procedures (tactics) for reaching a goal. Learning strategies should propose an active role for apprentices in regulating their own

learning. Cognitive, metacognitive, social, and affective are the four kinds of strategies depending on their function (Chamot 1987, in Richards and Rodgers, 2014). These are all fundamental skills in meaningful and constructivist learning. As a teacher, I try to achieve a learning environment that serves the educational objectives and promotes the interaction of the individual with the context. Today, students cannot just be information receivers. They must learn to learn in a meaningful context. The learning environment must include multiple perspectives and its activities must be authentic, relevant and useful.

Furthermore, knowledge and regulation can become better through classroom instructional practices and social interaction. Students learn driven by their own impulse no matter the method. Consequently, successful learners decide how they want to learn, and competent teachers assist them on obtaining effective learning strategies. "Learners bring dispositions to language learning that may operate in tandem with the assumptions of an approach or method, or independently of it…" (Richards & Rodgers, 2014 p. 331).

I wanted to help my student manage her own learning; therefore, I tried to base my teaching methodology on what Kumaravadivelu (1994, 2003) has called the "post-method" perspective. (Richards & Rodgers, 2014). I am for active learning and an approach that is flexible, and that considers the context and the needs of students. Richards and Rodgers (2014) cite Rivers in reference to Henry Sweet (1889):

> It was advocated by Rivers, who cites Henry Sweet (1889): 'A good method must, before all be comprehensive and eclectic. It must be based on a thorough knowledge of the science of language" and general principles rather than the one absolutely invariable method' and Harold Palmer's 'multiple line of approach', which 'embodies the eclectic principle'; 'we use each and every method, process, exercise, drill or device… to select judiciously and without prejudice all that is likely to help us in our work. Conversely, inflexibility is likely to become

> dysfunctional.' And any method ceases to be efficient when it is applied inflexibly, according to set procedures, in every situation." (p. 352)

Using a single method restricts the roles for both apprentices and teachers. It also constrains the strategies and processes to be used. Therefore, the following are what I consider the most valuable features from different methods and approaches that I used in my lessons with the participant.

4.5.1.1 The Oral Approach. The Oral Approach emphasizes the use of the target language as the language of instruction. An essential task for teachers is drilling. Even though this activity is based on behaviorism, where a set of stimuli provokes a series of matching responses, it is sometimes very effective when learning certain grammar structures and vocabulary.

4.5.1.2 The Audiolingual Method. The Audiolingual Method teaches the language and not about the language. There is special attention given to listening and speaking. Experience supports learning. It considers pronunciation important for intelligibility.

4.5.1.3 Communicative Language Teaching. I also followed the general principles of Communicative Language Teaching (CLT) approach to support classroom procedures. CLT has its origins in a functional theory of language that considers language mainly as a means of communication. The principal goal is to develop what Hymes (1972 in Richards and Rodgers 2014) called the "communicative competence". CLT also inclines towards Halliday's functional account of language use theory.

Brumfit (2001) mentions the particular characteristics of CLT focused on three aspects of language. First, it concentrates on the learner's individual language needs, second, there is a

concern for realistic contexts, and third there is acknowledgement that language use and language learning originate changeable levels of response. Some other CLT features are it uses genuine everyday language, seeks to have students to communicate effectively depending on the context, it is learner-centered, it is tolerant towards learners' mistakes, it promotes both collaborative and autonomous learning. In CLT students have an active role and the teacher is a communication facilitator**.**

4.5.1.4 Content-Based Instruction (CBI) and Content and Language Integrated Learning (CLIL). Content-Based Instruction (CBI) and Content and Language Integrated Learning (CLIL) strongly consider the learners' needs and their purpose for learning the language. They also seek to develop intercultural awareness. Apprentices are meant to be autonomous and collaborative. Their activities are performance and meaning oriented which is why discussions are typical.

4.5.1.5 Task-Based Language Teaching (TBLT). Task-Based Language Teaching (TBLT) is a useful and flexible approach where the teacher uses authentic tasks as the center of planning and instruction. Problem solving and communication assignments are common. Van den Branden (2006)) defines TBLT as "an approach to language education in which students are given functional tasks that invite them to focus primarily on meaning exchange and to use language for real-world, non-linguistic purposes." (Richards and Rodgers, 2014, p. 174). It is based on various principles of the CLT. Nunan (1989) defines a task as:

> The communicative task is a piece of classroom work which involves learners in comprehending, manipulating, producing or interacting in the target language while their attention is principally focused on meaning rather than form. The task should

> also have a sense of completeness, being able to stand alone as a communicative act in its own right. (p. 36)

Activities in TBLT are purposeful and have great emphasis on communication. Learning is the result of interaction, use of language and great input.

4.5.1.6 The Cooperative Language Learning. The Cooperative Language Learning promotes activities to develop critical thinking skills. Apprentices are active participants and are expected to work in pairs or in groups. The teacher is a facilitator that fosters critical thinking.

4.5.1.7 Project Based Learning (PBL). Project Based Learning (PBL) uses relevant, meaningful, and real-world problems. It requires collaborative work. Other advantages are that it focuses on teaching skills and content, requests critical thinking, engages students, and increases their motivation.

4.5.2 Theory of Learning. Language cannot be studied from just one perspective. Therefore, there are many theories that have influence on the approaches and methods in language teaching. Cognitive, personal, interpersonal, and social processes of learners are explained by language learning theories. Language is extremely important because it is how we get knowledge about the world and establish social contact.

4.5.2.1 Constructivism and Social Constructivism. I support my instruction on constructivism and social constructivism; because they defend the importance of providing the learner with tools to generate scaffolding that will facilitate the construction of their own solutions. Moreover, I want my apprentices to work collaboratively because it promotes social

negotiation instead of peer competition. I desire to be a guide who supports them when problems or doubts arise, and provide activities that generate active learning.

Constructivism has been greatly prominent on education and theories of second language learning. Jean Piaget, John Dewey, and Lev Vygotsky are the founders of this theory. Learning is not a passive process but rather the outcome of internalization of outside knowledge. Constructivism is student-centered.

Social Constructivism considers language learning as a consequence of conversations between the learner and someone else who is more knowledgeable. Interaction between people, objects and culturally organized activities and events have to take place for learning to happen, which is why learning occurs in a social setting. Scaffolding is a decisive component of Social Constructivism. "In the classroom, scaffolding is the process of interaction between two or more people as they carry out a classroom activity and where one person (e.g., the teacher or another learner) has more advanced knowledge than the other (the learner)." (Swain, Kinnear, and Steinman 2010 cited in Richards, & Rodgers, 2014). CLIL (Content and Language Integrated Learning), and Task-Based Language Teaching (TBLT) consider scaffolding as very significant.

4.5.2.2 Piaget. Piaget gives social interaction a secondary role. His theory is relatively autonomous from language and there is an emphasis on thought and its development. It regards individual cognitive processes as essential in development. Thinking is a self-regulating activity and therefore it does not have to resort to social language. Thought goes beyond language; therefore, cognition is above language.

Piaget recognizes the importance of language acquisition for cognitive development; however, the use of linguistic signs has a secondary role in development. The processes of adaptation to the environment, independent of language, are the mechanisms that drive

cognitive development. They are known as assimilation and accommodation. (Labinowicz, 1998).

He focuses on language as a system of abstract signs which is very powerful for the development of abstract reasoning. Although he mentioned the social functions of language, these are secondary in relation to the child's development. (Labinowicz, 1998). The key piece of analysis in Piaget's theory is the child as an individual.

4.5.2.3 Vygotsky. His most significant contributions were made in the fields of early childhood sociocognitive development, the emergence of language and communication, and the construction of written language. Another very important addition is the relationship established between thought and language.

His is a theory of development that considers the status of language in relation to social interaction processes, which is why it is a highly language dependent theory. Furthermore, he esteems social interaction as fundamental for development. A social or cognitive approach leads to various analyzes of the way in which language, thought and social interaction are interrelated. Moreover, he considered the emergence of language as a switch in development, as it introduces new forms of internal organization in the infant. According to Perez Pereira (2006), the socio-cognitive approach is the best to understand language acquisition in blind children because it acknowledges various ways of acquiring language.

An important part of Vygotsky’s work is connected to the use of mediating instruments (tools and signs) for the understanding of social processes. Creating and using signs as a way to solve a specific psychological problem is a procedure similar to creating and employing tools. (Nagowah, & Nagowah, 2009)

Vygotsky acknowledges language development as the main engine of the process of growth; because, it intervenes in the child's social and intellectual life. Thought is neither

autonomous nor prior to language. He granted the use of language a privileged place in relation to other aspects of development. In order for the development of elevated mental functions to be achieved, language is necessary. He indicated that the roots of thought and language are different. In some stages of development, however, there is an encounter between thought and language, when thought becomes verbal and language turns rational. (Fletcher and Garman, 1986).

Vygotsky interprets the child's cognitive abilities with respect to what he called "Zone of Proximal Development" (ZPD). “The ZPD is the child's differential ability to capture and use the signals and instructions of those who are more knowledgeable, more aware and more expert than him, and who in fact, they collaborate with him.” (Jerome, 1984, p.35). Through communication processes, mostly regulated by speech, the adult establishes interactions with the child.

4.6 What are the most suitable technology based tools for students with vision impairment to learn English?

Technology based tools allow people with VI to obtain information immediately. They have become important allies for people with vision impairment. Nowadays there are many means that permit learners with vision impairment access to all kinds of information.

We utilize the internet and technology based tools in many of our daily activities. Many fields have been influenced by the elevated employment of technology, including language learning. Web technologies give people who were, some time ago, left out the opportunity to take part in education. They also consider every student has different necessities. Technology tools are knowledge construction and facilitation instruments that can be applied to a variety of subject-matter domains. Constructivism is focused on how learners build knowledge which

strongly depends on what they already know. Tools allow apprentices access information, represent, interpret and organize those previously learnt facts, information, and skills.

It was possible to improve the participant's linguistic and digital competences by incorporating them. Furthermore, some apps gave the participant the opportunity of interacting with native speakers. That was particularly beneficial because it upgraded cultural knowledge.

The following are the tools we used during or lessons. I rated them in accordance with feasibility, user-friendly interface, and the participant's like or dislike. Four points were assigned for feasibility, three for user-friendly interface and other three for like or dislike. One drawback is that we used the tools while we worked together. Therefore, I am not able to tell how appropriate they are for the student if she wants to practice by herself.

4.6.1 Vox Pops. The Oxford series Navigate come with the tool Vox Pops a term that derives from the Latin and means voice of the people. It is a method in which persons in the street are asked questions and their responses are recorded on camera. It provides an idea of public opinion. There are many benefits in using Vox Pops. First, these are usually short interviews that can help when learners are bored. Second, they put students in touch with authentic real speech. Also, the question-answer format makes it easier for apprentices to understand. Some Oxford's Vox Pops are available on Youtube. Teachers can use their worksheets or develop their own. Teachers can also make their own Vox Pops related to any topic they consider interesting or they can have their students develop theirs too. This tool got a 9 because of the participant's preferences.

4.6.2 Videos. We also used the videos that come with the Oxford Series Navigate, but that were available on Youtube. I chose those videos because it is possible to understand without

watching the images. Videos are useful because students can go forwards or backwards as they need, they can stop the video and check if they have understood, or repeat it if they did not. They include a worksheet that guides learners through the video and highlights vocabulary, but teachers can prepare their own too. Another good option is BBC podcasts. First, we listened for the whole video. The second time, I stopped the video and described the scene. Afterwards, we answered the worksheet and went back to the video whenever we needed. When working with a group, apprentices can take turns to describe the scenes. The student can have the video in advance so she can examine it before the lesson. The participant did not like working with videos a lot, so they got an 8.

4.6.3 Netflix. This is a streaming service to watch TV shows, movies, and documentaries. Most content on Netflix has audio description which is an accommodation that allows blind and visually impaired people to hear a detailed narration of what is happening on the screen. Physical actions, facial expressions, clothing, locations, scene changes, and other relevant visual information are described in English. Other characteristics are that people talk at their normal rate and use real language. Films or shows should not be used to then answer comprehension questions. One disadvantage is that not all series have this modality. However, the majority of Netflix original productions do have it. Another drawback is that, without the visual support, it is sometimes very challenging to understand a film or dialogues in a foreign language. Netflix obtained an 8 because the participant did not enjoy it very much.

4.6.4 Youtube. Free online courses, TV shows, movies, vlogs, and songs are examples of content that expose students to the target language and that can be found on Youtube. The participant once told me she wanted to be a Youtuber. It could be an interesting project if, in

one of her classes, students could create and upload their own videos. Youtube got a 9 because of the participant's preferences.

4.6.5 Wordreference. It is a free online translation dictionary. It has many positive aspects. First, the pronunciation of the word in many accents including; US, US Southern, UK Received Pronunciation, UK Yorkshire, Irish, Scottish, and Jamaican can be heard. There are definitions, synonyms, verb conjugations, and collocations dictionaries. Another advantage is that, one can ask on the forums whenever a word is not found. Native speakers usually answer to questions on those forums. There are also only English publicly accessible forums where registered users can discuss and ask questions about grammar, specialized terms and other topics. This tool obtained a 9 because of feasibility.

4.6.6 Forvo. It is a website where its users create sound clips of pronunciation in many different languages. Users can vote positively or negatively on all sound clips. This way quality is ensured. There is a team of volunteer editors that review the pronunciations. One mayor benefit is that slang, brands, and words that are not usually found in regular dictionaries are pronounced here. It gained a 9 due to feasibility.

4.6.7 Audio books. A book becomes an audio book when it has been recorded. There are two kinds: unabridged and abridged. Unabridged means a reading of the complete text whereas abridged is a shorter version. Audio books are available on any audio format available. There are many audio books accessible online and on Youtube. They are very useful to increase listening comprehension. Audiobooks received a 9 because of the participant's preferences.

4.6.8 Tune In. It is an audio streaming service where live news, sports, music and podcasts can be found. There is access to more than 100,000 radio stations from around the world. It is available in 22 languages. It got an 8 because of the participant's liking.

4.6.9 Tandem. In this App one can find native speakers of many languages who are also interested in learning the user's native language. The idea is to learn each other's language. Learning time is equivalently shared. For example, my partner and I could study Spanish for half an hour and then study English for another half an hour. Some of the benefits include; the development of intercultural competence and the improvement of listening comprehension skills. One drawback is that the free experience is not that favorable. It obtained two points for feasibility, two for user-friendly interface, and two for the participant's preference giving a total of six.

4.7 What Information and Communication Technologies (ICTs) can assist students with visual impairment in learning English?

Technologies should be accessible for everyone regardless of disability, age, ethnic background or class among others. The integration of ICT has innovated education for students with VI. There is no doubt that technology can trigger inclusive education.

Learning a language is not an easy task because it integrates many kinds of learning. A lot of time, effort and resources are needed for a student to accomplish proficiency. Since students with visual impairments have special requirements, they also need qualified teachers, a suitable environment, and proper books, materials and equipment.

English teaching can be improved with the use of technology. Two very significant characteristics of ICT are that they are dynamic and interactive. They allowed the participant decide the course of her learning, find information, and fulfill assignments, following her own

interest and needs. As a result, she became more inspired to act, and willing to practice on her own to achieve her learning goals.

Technology used for learning has become compulsory. Mobile learning, microlearning, and game based learning offer great opportunities for students with visual impairment. ICT provide students with new ways of learning. ICT efficiently linked both of us. The participant and I used smartphones, computers, the internet, and social media to communicate regardless of the location or time. Those were also the ways in which I provided feedback and further information about the lessons.

One important positive aspect of ICT had to do with the student's attitudes. ICT increased motivation because she learnt in a stress-free. They also exposed us to authentic material and to a real life learning environment. They also contributed to make her the center of teaching. Besides, ICT were an exceptional help for me too. They gave us valuable information about grammar. They supplied a vast range of teaching materials, exercises, and resources that added novelty to the lessons. One further benefit was they made assessment easier and more effective. Feedback became faster too. They also assisted us when learning vocabulary. They were valuable aids when developing listening skills. ICT helped us ameliorate pronunciation.

It should be kept in mind that ICTs are not appropriate for all learners in all situations. What matters the most when deciding what to use with students with VI is to consider their unique needs and positive qualities. ICT can certainly ease learning but it is on the user where the effectiveness and quality of learning relies. They can aid students with VI overcome many problems they have to face because of their vision loss.

4.8 What activities can help students with vision impairment learn a second language?

The following is a summary of the class profile and context of our lessons:

Number of students: 1. *Gender*: female. *Approximate age*: 23 years old.

Proficiency level: Lower intermediate/CEFR B1. *Class time:* 110 minutes twice a week.

Syllabus					
	Unit topic	**Grammar**	**Pronunciation**	**Vocabulary**	**Target competence**
1	Talk	subject and object questions / Present simple and present continuous	Sound and spelling: /ɪ/ and /iː/ and Sentence stress: gradable and extreme adjectives	Gradable and extreme adjectives	Fluency
2	Modern life	Present perfect simple and past simple and Present perfect simple and present perfect continuous	Present perfect and past simple: I've worked / I worked and Sentence stress: main verb / auxiliary verb	Work and technology	Pragmatic
3	Relationships	Narrative tenses and used to, usually	Linking sounds and Sentence stress: multi-word verbs	Family; Multi-word verbs; Relationships	Discourse
4	Personality	Modals and phrases of ability and Articles	Sound and spelling: fi nal -ed in adjectives and Intonation in question tags	-ed / -ing adjectives; Personality adjectives	Pragmatic
5	The natural world	Future forms and Zero conditional and first conditional	Consonant clusters; Sound and spelling: a; and Voiced and unvoiced consonants	Environmental issues and The natural world	Strategic
6	Different cultures	Modals of obligation and Comparatives and superlatives	Word stress: compound nouns; Sound and spelling: /ʃ/ and /tʃ/; and Sounding interested	Compound nouns; Multi-word verbs; and Describing food	Fluency
7	House and home	Modals of deduction and Quantifiers	Modal verbs: sounding the final t or d; and Sentence stress: verbs and prepositions	Buildings and Verbs and prepositions	Pragmatic
8	Information	Reported speech & Verb patterns	Sound and spelling: /g/ and /k/; Sound and spelling: /s/ and /z/; and Sound and spelling: /h/ and /w/	Shopping; Reporting verbs; and the news	Strategic
9	Entertainment	The passive & Defining and non defining relative clauses	Auxiliary verbs in passive sentences; Relative clauses: pausing; Word stress; and Showing contrast	Cinema and TV; and Music; Word building (nouns)	Fluency
10	Opportunities	Second conditional and Third conditional	Sentence stress: would; Sentence stress: would and have; and Sounding sure and unsure	Sport; Adjectives and prepositions; and Expressions with do, make and take	Discourse

Most lessons had a communicative approach; however, it was not the exclusive one. Many alternatives were chosen so that the student's necessities could be covered. Diverse principles from linguistic theory and language development were also considered. All the activities can be found in Appendix B. There is a short description of the activity with an example. Each activity was assessed considering satisfaction, listening, learning, usefulness, and applicability.

I regarded as important to pay attention to forms because most exams the participant has to take emphasize on their use. Besides, at the beginning of the term, grammar was one of the participant's major concerns. According to Whong (2011), the repeated use of forms in meaningful contexts will conduct to language development. Since we only had two hours per session, we only linked two skills which were speaking and listening. The activities were though so the participant could have the favorable circumstance to show what she knew and had learnt.

The Communicative Approach maintains that it is through the process of communicating in the target language that learners get to learn it. I favored this type of activities because meaningful communication is the best way to master a language.

Most of the activities focused on fluency, accuracy, and appropriacy development. Fluency and accuracy practice are not the same. The following are characteristics of activities that focus on fluency "…reflect natural use of language; concentrate on achieving communication through negotiation of meaning; require meaningful use of language; require the use of communication strategies; produce language that may not be predictable; and seek to link language use to context." (Richards and Rodgers ,2014, p.96). Activities focusing on accuracy should; "…reflect classroom use of language; concentrate on the formation of correct examples of language; practice language out of context; practice small samples of

language; do not require meaningful communication; and control choice of language." (Richards and Rodgers ,2014, p.97)

After each activity there was a follow-up that focused on accuracy, especially in grammar and pronunciation. In a great part of the activities I worked as the student's partner because the sessions were one-on-one. Some communicative activities were:

4.8.1 Opinion-sharing activities. These exercises allowed the apprentice give her opinion and share her beliefs. They included discussions. These activities let the participant develop her conversational skills. They kept the student engaged because the activities were almost always about interesting topics for her.

4.8.2 Task-completion activities. In these activities the participant used her language resources to fulfill assignments. Examples of these activities included presentations, descriptions, games, problem solving and discussions.

Edwards and Willis (2005) illustrate other characteristics of these tasks. Some of the most relevant are: the main focus is on exchanging and understanding meanings, the outcome can be shared, and they can involve one or all four skills.

4.8.3 Role play. Roles were designated and a scene was improvised. In role playing could use what she had learnt right away. In a mainstream classroom, this learning structure allows students to interact with their peers and make decisions.

4.8.4 Reasoning gap activities. The participant had to infer new information from some that was previously provided. In these activities the student uses logic and makes decisions.

There were other activities; such as, stimulus- response, guided question with a free response, and free question with a guided answer. Listing, ordering and sorting, comparing, problem-solving, sharing personal experiences and creative tasks are the six task types suggested by Willis (1996) and that were used in our classroom. Opinion exchange tasks, in which students share ideas or discuss and do not need to reach agreement, was another classification of activities employed. Again, the activities were one-on-one so the result may when working with more students.

Finally, in this chapter I have gone through the questions that guided this study. One important conclusion is that the participant learns in a similar way other motivated students do. Besides, when acquiring their first language blind children tend to imitate their caregiver's language more. That is probably why she has no problem in emulating the correct pronunciation. Some characteristics she has that help her in learning a foreign language are her memory, auditory memory, and her listening skills.

Furthermore, she has to deal with certain issues. The most relevant are teachers not knowing how to work with a blind student, the excessive use of the book in lessons, lack of technology or material, unprepared support staff, and negative attitudes. For all of her educators this has been their first experience with a student with VI. Therefore, they recognized they ignore how to teach her. They all acknowledged they should get some kind of training. On the other hand, teachers also have to confront many challenges. The use of certain methods, activities, technologies, and tools can most certainly assist educators improve their teaching.

Chapter 5: Conclusion

5.1 Overview

Inclusive education allows students with disabilities to fully participate in society. It also provides them better employment opportunities. Furthermore, it improves society because it promotes understanding and learning from each other.

Everyone has the right to access to education regardless of race, gender, age, social class, religion, political belief, or disability. Inclusion should be present at all levels of education. It means having equal opportunities covering specific needs. The challenges that learners with visual impairment must face in higher education are specific to that level. Because inclusion is something sought in today's education, professors must be able to support them with educational methods, tools, materials, and activities.

Non-verbal communication has a central role in meaning. Vision prevails in most language classrooms. One important task of a lecturer of a student with VI is to find ways of teaching meaning without the support of visual means.

5.2 Findings

This study has found that the examination of methods, tools, technologies, and integrating them to teaching a foreign language is fundamental in learning by students with VI. It also exposed some of the challenges that learners with VI and their professors face when learning English in higher education. I was able to reflect about the teaching process that took place during our lessons. Class observation allowed me to get information about the educator's challenges, methods, strategies and techniques used during lessons.

Sighted apprentices can learn a lot by observation. Nonetheless, students with VI do not have this kind of incidental learning. As a result, certain concepts have to be directly explained and taught verbally, with the help of other experiences, in order to be learnt. A large

amount of information is received by sight. This one sense allows us to perceive the whole and not parts which is usually not possible for students with VI. They have to learn about the parts first and then put the whole together.

Teaching English to students with VI in higher education cannot be teacher centered. Conventional teaching strategies cannot be used in an inclusive classroom. That is why a constructivist approach, where learners build meaning and new knowledge by means of connecting it with anterior experiences, is needed. In constructivism the educator is a facilitator and apprentices are never passive learners. It is valuable when developing communication skills because professors are no longer providing all the knowledge. Learners engage in an active mental process that allows them to form meaning and knowledge.

The inclusive classroom needs to be flexible and versatile. It also needs to be a place where people can learn through social interaction since it is a powerful means of learning. Assessment cannot be a kept apart activity but rather one that is incorporated to the tasks held in class. It can take place at any moment. In spite of that, faculty members must be aware to ascertain if learners have achieved understanding of the notions thought in class.

It is imperative that the participant learns English not only to communicate in the foreign language but also to develop professionally. In order to achieve this goal, methods that encourage innovative teaching must be used. Strategies such as cooperative learning should be part of the inclusive classroom. Constructivism is an approach that can promote the development of communicative skills in all learners. Notwithstanding, there are some traditional activities; such as, drills and repetition, that are not related by any means to constructivism, but can be helpful especially when learning vocabulary, chunks of speech, or certain grammar structures.

An inclusive classroom cannot be seen as one whole entity. The members of such a group are individuals whose mental abilities differ from each other. Each person responds in diverse

ways to tasks and stimuli. Therefore, professors have to be aware that certain assignments are not suitable for everyone in the group. In an inclusive classroom, apprentices must be at the core of instruction. When planning their lessons, they have to strongly consider the learning requirements of the participant with out neglecting the rest of the group. In such a way, everyone will have learning opportunities. The first step for educators is to regard the strengths of the student with VI and then adapt their methods, activities and tasks. It is the professor's responsibility to continue discovering other strong competencies and vary the activities as a consequence in order to provide multiple learning experiences. By no means are lecturers to judge and decide whether a student with VI is not capable of successfully learning a foreign language. Their misconceptions about blindness cannot interfere with or influence their practice. A learner with VI adds challenges yet contributes greatly to lessons.

During our lessons I observed that the participant learns English in a very similar way other motivated students do. Motivation is essential for achieving positive learning outcomes. She has an attitude of success and is capable of using strategies to accomplish her learning goals. There is always something she would like to learn and understand. She is also very determinate and is not afraid of new challenges. She was easy to teach because she was eager to learn. Thanks to our lessons I could determine that the dissimilarities in learning lie more importantly in the individual features. Whatever the physical conditions are, as Gardner (1983) noted, we all use more than one sense when learning even though we favor one or two according to the context. She makes progress because her motivation is frequently superior to that of other learners.

I was able to detect that the participant has some strengths over sighted students which facilitates language learning. One important variance is related on how much she relies in her auditory memory. This strongly reflects on pronunciation. Whenever I guided the participant in pronouncing a word, she would repeat it in the correct way. Thanks to her developed

auditory memory, she does not make the same mistake again. Also, she depends on her hearing and pays a lot of attention. When some sighted apprentices are corrected on how to pronounce a word, they usually read the word and pronounce it as they would when speaking Spanish. Again, her auditory memory allows her to effortless learn high-frequency and context specific vocabulary. This gives her an upper hand as vocabulary has a key role in language acquisition since we need to know many words in order to communicate efficiently. Her auditory memory helps her with listening comprehension exercises. Her memory skills assist her in the reading and listening comprehension exercises and to improve her fluency. Given that she cannot take notes, she has to rely completely on her memory. As a result, exercising her memory also allows her to meliorate it.

Even though I was not able to interview any family members, the support she receives from all of them is evident. The system she has behind her encouraged her make it this far and has influenced her social behavior. Her personality and constructive attitudes makes interaction with her very easy.

Thru class observation I was able to understand some of the problems faculty members face, the techniques, the materials, the tasks and how the participant interacts with her classmates. The lack of specific training in inclusive education is an urgent issue. Some educators do what they think is the best based on their experience. Most of them used what has worked with sighted students without considering the participant's needs.

I noticed in our lessons that the participant's favorite activities and the most suitable for her are the ones that promote oral language. It is important that the communicative tasks are relevant for her so that effective learning can happen. Oral production is very significant when communicative competence wants to be developed. Interaction with other students, functional communication, and speaking skills are essential. In communicative activities professors are

guides and learners have a more active and independent capacity. Educators should keep in mind these tasks require time to prepare

Some of the participant's lecturers still depended on visuals; such as, the book which is projected on the screen in the classroom, presentations, and the book platform. They do not look for alternative ways of presenting the information.

Students with VI can learn a foreign language even when they are not capable of developing certain notions. The participant uses her first language correctly in the same way a sighted educated student would employ it. She adapts in order to use a foreign language.

5.3 Recommendations

The instructional program in higher education is mostly at an abstract level. It uses language to arbitrate. In this case, it employs a foreign language to mediate.

There are many challenges and rewards when having a student with vision impairment in the classroom. Experience allows lecturers to improve their teaching. Teachers and other people involved in the participant's development should have a deep understanding of what inclusive education means. The following are recommendations on how to meliorate language teaching to visually impaired students in Higher Education.

5.3.1 General recommendations. It is imperative that educators of students with VI keep an open mind. Faculty members should always express in words what they are writing on the board. New vocabulary should be spelled out. Images have to become words. Therefore, there should always be a detailed description of pictures. They should be explained firstly in general and then provide details starting always from the top left and moving clockwise.

Lecturers should always give clear oral instructions for all assignments and activities. They should always use precise language. Besides raising their hand when asking a question

or for permission to talk, students can clap or say the teacher's name. The person's name should always be used to address someone and to identify whoever is talking.

Lessons should seek learner's autonomy. Many problems could be better faced if groups were smaller. Professors need to prepare their lessons very carefully.

Parallel support; such as *Lobomentores*, should be sought because educators cannot only focus on the student with VI. Nonetheless, support staff should have a good English level so that they can truly help the student with VI access to the content of the lesson. Lecturers are responsible for everyone in the classroom. The support staff is in the classroom so that the educator can take care of the whole class.

Pair and group work are fundamental in language lessons. Faculty members should provide plenty of opportunities for apprentices to work together in pairs or in small groups such that they connect to each other and favor constructivist learning.

It is important that the participant is tested on the same grounds as the rest of her classmates. However, sometimes the effort is not the same as she needs an assessment support person and, in occasions, they do not have good qualifications. The participant should be able to take the exams mostly on her own. Therefore, they should be designed in advance and transferred into Braille. Teachers could find out if there are already existing versions that the participant can take. The exams should not include any pictures or visuals. Alternative methods should be prepared in advance. The listening section in an exam should not have fill in the blank exercises. It should be kept in mind that reading Braille or using a reader can take further time. It will take longer for her to turn in assignments as well. Despite this, deadlines should be respected.

In general, the participant should be treated as any other student. Even so, provide assistance during lessons and check on her regularly to find out if she necessitates help. Make sure that all concepts have been understood using open ended questions because there are

some notions that require deeper clarification to become comprehended. Use real objects whenever possible. Nonetheless, help only if she asks. Always speak directly to the participant when communicating with her, not to someone else. Lecturers have to ensure she has the textbook in Braille. They could also confirm if an auditory edition is available and if it is suitable for her.

The main points of lessons should be emphasized orally. Professors should try not to highlight right answers through speaking. Making remarks on a chart or any image, detecting the visual differences, describing the surroundings, doing exercises based on pictures, or playing with flashcards, are some of the activities that should be evaded. Vision related verbs; such as, look, see, watch can be used as part of natural language.

Teachers should be patient. Consider at all times that without visual cues it is more difficult for the people with VI to respond. Avoid over verbalizing so that the participant does not get distracted. Educators must pay attention to their tone of voice. It should be in accordance to the message that wants to be conveyed.

There is almost nothing that cannot be explained to a congenitally blind person. Someone who has never seen does not have a feeling of loss. There are certain concepts, like colors, that are sometimes useless to explicate. The employment of descriptive words like left or right is recommended, but always considering the participant's position. Avoid such terms as; here, this, those, etc.

Measures to change the attitudes of everyone involved in inclusion should be taken. Working in teams to solve problems could be an adequate option. While there are people who fully support the participant, there are others who represent an obstacle. Respect, trust and cooperation are fundamental when working with students with VI. Peers also play an essential role in successful lessons. Inclusive classrooms should be safe places. Adaptability and an open mind are vital for learning.

Lecturers should have their materials in electronic format so that students with VI can use them and adapt them. Educators should adopt a verbal style of communication. Feedback should be given to the participant orally and never handwritten.

When using videos in class, the participant should receive a summary in an electronic format where important parts are presented. The participant should be able to use the videos before the class, in case she has any questions. Students can describe what can be seen on the screen and they consider important. The first time the video is played it can be done with the screen covered so everyone is paying attention only to the listening cues.

Faculty members should also have all handouts, exercises, and all documents that will be used during their lessons in a Word document. It is preferable to send them to the student in advance so that she can study them with time. Audio notes or audio messages are also valuable because that way the participant can also hear the right pronunciation. Digital material should be in an accessible format.

In the inclusive classroom, the use of the mother tongue should be allowed. During our lessons we used Spanish especially to avoid verbalism. Sometimes it is better to let students negotiate meaning using their mother tongue than letting them with an understanding gap. However, when explaining a difficult term the mother tongue and the target language should be employed. The use of the mother tongue should be discontinued once the students have gained better comprehension.

Listening skills are fundamental for students to learn a foreign language. Teachers should keep developing those attributes with activities; such as, listening for details; following instructions; narrating a story; looking for the main ideas in sentences, paragraphs or stories; separating fact from opinion; or locating information. Our lessons were mainly focused on listening and speaking because both skills are closely interrelated and they are the two skills that would be used more frequently by the participant. I tried not to overemphasize fluency so

that accuracy would not have decreased. One advantage is that the participant already has good listening skills. Notwithstanding, most of the listening tasks in her book are challenging, especially if she has to read the questions and listen at the same time. In listening tasks, I read the questions first. In a regular lesson, listening exercises could be done in pairs. The student should be able to pause the recording in case she needs to do so. All pictures should be described before starting the listening exercises.

Speaking tasks are highly recommended. Discussions, role plays, dialogues, and presentations are examples of speaking tasks that make all learners be involved. Pair work is always a good option whenever images are included. The sighted student describes and answers questions to the participant. The participant seams to have many experiences that are shown in the way she talks. Oral production is a creative skill that requires the prior definition of the ideas, words and constructions that are to be communicated. It is everyone's duty to continue enriching her vocabulary and developing her originality and creativity.

5.3.2 Accessibility. The International Standards Organization (ISO) defines accessibility as: "The usability of a product, service, environment or facility by people with the widest range of capabilities." (ISO TC 16071 in O'Connor, 2007, p. 5). People with disabilities have particular requirements, and by no means should be left out. The following recommendations are related to assistive technology and environmental accessibility.

5.3.2.1 Assistive technology. Technology can help the participant and professors overcome many problems and complete tasks. It can be used to adapt materials in order to avoid the participant's exclusion.

María Guadalupe Toledo, Attention Services to Diversity Coordinator at Universidad de las Americas Puebla (UDLAP), the participant, and I came up with the following list of

learning technologies for inclusive teaching of a foreign language to students with visual impairment.

5.3.2.1.1 Braille embosser. It is a machine that turns text into Braille cells. Educators would be able to produce handouts, exercises and many other documents in Braille.

5.3.2.1.2 Computer with a screen reader. Books, documents, exercises and other material can be accessed with the use of a screen reader. They also allow navigating the internet, writing documents, reading emails and creating presentations. Personal computers with Windows 10 have Narrator. With this software, the participant could listen to what is written on the screen and write exercises that can be read by the lecturer too. There should be at least one computer that the participant can use in the laboratory and at the library. NVDA (Non Visual Desktop Access) is a screen reader that can be downloaded for free. JAWS, (Job Access with Speech) is a very popular screen reader which it is preferred by most students with VI. It supplies both speech and Braille output. One drawback is that it is not for free.

5.3.2.1.3 Reading Machine. The machine reads a text that has been previously scanned or captured by a camera. This is useful when a large amount of text or a book has to be read. There are also apps that can be downloaded to a smartphone and that serve to that same purpose. Nonetheless, apps are sometimes space consuming which makes them less convenient.

5.3.2.1.4 Braille display. A Braille display gets connected to a computer with a screen reader that reproduces the narration into Braille**.** It would be very helpful for listening activities because, with this device, the student is reading instead of listening. In such a way, the student can pay attention without using earphones. She will be also able to improve spelling.

5.3.2.1.5 Swell-paper and Thermoforms. This machine produces tactile material. Fusers and swell paper make any line, shape or pattern in black to be tactile. The machine heats the plastic sheet and produces a 3D shape or tactile picture of any printed material. It is useful to reproduce maps, shapes, and diagrams among other.

5.3.2.1.6 Amazon Kindel. This is an e-reader designed and sold by Amazon. Visually impaired and blind people can listen to e-books via text-to-speech (TTS) with its accessibility accessory called Kindle Audio Adapter.

5.3.2.1.7 ORCAM My Eye 2.0 device. This artificial intelligence device has seven functions and works without an internet connection. It reads all kinds of texts, printed or digital. It automatically identifies the language in which the text is written. It also recognizes faces, products, and banknotes.

5.3.2.2 Environmental accessibility. An essential goal for universities should be that of promoting equity, access, and education for people with disabilities. They should be regarded as significant and equal members of society. The following are the recommendations for general accessibility.

As part of the library's collection, there should be online services and resources specifically for people with disabilities. These should include books in Braille, as well as alternative materials in electronic formats.

There should never be obstacles in the aisles or doorways of the classroom because they can represent a hazard. She should always take her classes in a classroom on the ground level because of the constant earthquakes that strike Puebla.

University executives have incorporated important changes in the campus. The tactile paving guides on the floor are extremely helpful for the student to move around. More guides

should be incorporated that lead to the doctor's office, the parking lot, the coordination office, the new building, and the sports fields.

There are food stands on the street outside the Languages Faculty that use frying devices. People consuming the food they sell invade the sidewalk. That risks her physical integrity and independence. It also represents an infraction to her right to move about safely.

There should be signage in Braille outside the places most frequented by the participant. Restrooms, classrooms, and offices; such as, those of the coordinator and the doctor, should all include Braille signage.

5.4 Further Research

There are many studies that seek to deepen on how the first language is learnt by VI children. On the other hand, second language acquisition has not been deeply explored.

This is not a finished investigation. Further studies should be carried on as inclusive education is not about just placing a student with VI in a traditional educational institution. The present study invites faculty members to continue with research in their classroom because a great part of learning is in their hands. They are in contact with learners for a longer period and they could go deeper in how to innovate teaching English to students with VI. An actual lecturer would be able to gather information to gain insight, and create positive changes to improve the students learning environment right there in the classroom. Thusly, educators would be able to solve problems they have to face every day. With action research professors can test their strategies and methods and consume their own findings.

Also, future research should include more higher education students with VI. The participants should be all the students with VI at BUAP. The purpose of the study should be how to improve English teaching to learners with vision impairment of majors other than

Language Teaching. Longitudinal research with more participants could provide results with a wider scope. Another investigation can also involve students from different universities.

During this study questions on how to teach the pragmatic competence of language to students with vision impairment arose. Even though the student has no pragmatic difficulties in her first language it would be a very valuable research that would help students to express exactly what they want in the foreign language.

Additional research could be about the relationship between educator and students with VI. The main objective would be to establish how bonding could influence the learning outcomes. It would be helpful for lecturers to know how a good rapport with a student with vision impairment could affect teaching practices and learning outcomes.

5.5 Limitations of the study

This qualitative study concentrated in one student only. For this reason it will not be possible to generalize the results to other populations. Only very few people with VI have an opportunity to attend university, so a student like the participant has certain characteristics that others do not.

Another limitation was the length of the study. Ideally, the participant should have been exposed to the lessons for a longer period. It would have been preferable if the participant had attended the lessons while she was not repeating a course. In this way I could have assessed the lessons' effectiveness differently because the topics would not have been taught again.

One further restriction was the lessons were one on one. This played as an advantage and as a drawback. It was a positive aspect because we were able to focus in problematic areas. Lessons were also flexible and it was possible to cover a lot of material. One more benefit was we bonded. This allowed us to obtain more favorable learning outcomes because trust was built. One disadvantage was I was not able to test the efficacy of the activities in a less

controlled environment and with the participant interacting with her classmates. She was repeating the course for reasons that might not have been completely academic. The participant had a lot of previous knowledge, so she was reviewing most concepts and only a few were new.

One more constrain was I could not observe many of her regular lessons. As a result, I had limited opportunities to monitor her interaction with her other classmates. Also, I felt my presence was an obstacle for classes to develop naturally. Even when I tried not to obstruct or made myself evident, I was in occasions invited to participate in the lesson. As a consequence, some class observations were obsolete because everyone's behavior was altered.

I wish I could have observed some lessons from previous terms, especially the ones from the course she did not pass, because it would have given me the opportunity to assess what were some situations and practices to avoid. That would have also contributed to evaluate how much the rapport between a student and a faculty member affects the outcome.

One limitation concerning data collection was that some information was solely reported by teachers and not observed. Therefore, I did not have the opportunity to verify it.

Furthermore, the participant is majoring in English Language Teaching. This means she is highly motivated and focused on learning English because it is her main interest. Students from other majors might have other learning priorities.

At the end of the study I got in contact with Guadalupe Toledo. She provided me with very valuable insight. I should have asked her to be a participant from the beginning. There was a Foreign Languages blind Italian student attending UDLAP so it would have been advantageous to interview a student from a different context too.

Some other constrains related to time were that reading and writing were not central points in our lessons. This affected spelling. Even though I spelled many complicated words, I

do not consider this area was covered. Moreover, we never had writing assignments. I did all the reading in our lessons. I started to learn Braille, but, by the time I was able to write some phrases, the semester was over.

An extra limitation was the rigid curriculum. Professors and I felt the responsibility of covering all the material in the book. This constricted the exploration of new methods and activities.

5.6 Implications

The results obtained in this study contribute to inclusion in education. They show it is necessary that people involved in the student's development are aware that everyone has the right to receive high quality education, regardless of their specific needs or disability. Educators, with their attitudes and capacities, are responsible to an extreme extent for this to happen. They should be also conscious of their responsibility to assist and guide students with vision impairment.

Inclusion in education has its bases in society and it is deeply related to policy, and legislation. The needs of every student must be fulfilled in mainstream education because we are all important members of society. This research can help the students' voice reach faculty members, administrators, and policy makers so that they can be taken into account and be fully incorporated in society.

One of the most significant implications from this investigation is the urge of furnishing all current teachers at the Languages Faculty with a training program centered on inclusive education and teaching students with VI or with other disabilities. None of them has received this type of education. These courses should be included in the EFL Teaching programs as well. Thinking it is the role of special education educators to take care of students with vision impairment is a way of perpetuating segregation. All professors must show support to any

curriculum and training modifications there will be. Change cannot only last while the participant is attending the Languages Faculty. Inclusion has to become stronger every term and fight against discrimination in legislation, regulation, and in society. An inclusion's basic principle is that all students have the right to regular education. Learners with disabilities should be put in heterogeneous groups where instruction is promoted in several levels. Comparisons should be left out of those classrooms.

Collaboration with other higher education universities would be rewarding. Sharing experiences with students with visual impairment can only result in effectively meeting the requirements of students with VI.

5.7 Conclusions

The data collection and analysis led me to the following conclusions. Change is one of the most relevant elements of learning. Nonetheless, transformation in performance cannot be expected to be automatic. On the other hand, change is not always the result of learning. Processes, temporary states, motivational shifts, maturations, and physical growth can also provoke a behavioral variation. Another decisive factor in translating learning into behavior is motivation. The participant's motivation is partly because she is completely aware of all the benefits she will gain when she becomes fluent in English. Teachers' responsibility is to create such learning experiences that the participant feels supported and motivated to learn.

Experience and learning are tightly intertwined. Experience is what allows the construction of knowledge. Learning is successful when experience causes a change in behavior that lasts for a considerable time. In addition, it is when someone can apply something he or she already knows, again and again in different circumstances. A fortunate learning situation is when someone constructs knowledge thanks to the interpretation of information and is capable of learning to learn.

Interviews and class observation allowed me to realize most educators did not adapt their teaching techniques and materials. They used the same ones that they employ with sighted learners. This of course reflects the fact that lecturers find out they were teaching the participant the first day of classes. They do not have experience or training to work with a student with VI. Training courses should also include how ICT can help students with vision impairment.

The absence of opportunities greatly affects learning. Faculty members in mainstream classrooms are accountable of supplying academic instruction. Despite this, every action taken should be towards the participant's autonomy where she takes responsibility of her own learning. Therefore, they should adapt their teaching strategies, materials, and environment, in a way that all modifications are subject to the student's requirements. The effectiveness of all introduced measures should be assessed to insure further steps.

Even though there have been important efforts to include students with VI in higher education there are still many difficulties to overcome. When teaching people with vision impairment, they cannot be acknowledged as recipients, but rather as constructors of knowledge. The cognition of the pupil needs to become the focus of instruction. Besides, teaching requires seeking to develop learning and thinking strategies in all the students.

Foreign language educators use content as the main way of teaching communication. In many language lessons, the transmission of meaning revolves around vision. Yet, in an inclusive classroom, it becomes imperative to find innovative ways to replace all visual means without neglecting meaning transmission. Moreover, teachers have to get more involved and design activities with relevant content that relate to the personal stories of their students. They will have then to adapt the program and create material to ensure that the book is not the main or only source of activities.

Somehow, we are all educators and apprentices. Nevertheless, the teacher's primarily function is to help others to learn. Learning can change lives. As social agents, instructors must seek to promote the development students in three aspects: intellectual, personal and social. Additionally, professors of a student with vision impairment must look for the perfect teaching situation, that is to say when effective learning occurs.

Inclusive classrooms are complex places. They are composed of individuals and, therefore, cannot be seen as a unit. Learners' differences have to be considered at all times, which is why successful learning involves various functions for educators and students. An instructor's role is to aid apprentices reach their knowledge goals and gain self-confidence. Therefore, they must have theoretical background in learning and behavior; so that, they can interpret and solve the intricate problems that might take place. For this reason, as facilitators, they are obliged to consider and examine the effects of their actions. Hence, they should be devoted to self-monitoring and professional development.

Every lecturer must be passionate about the subject they teach. Besides having great expertise of the contents in their instruction area, and be qualified to fulfill intended learning outcomes, faculty members should be aware of what an inclusive classroom is. They have to be committed to the others welfare and development. Triumphant teaching is the result of smart planning, implementation and evaluation of the learning experiences.

Learners should be at the core of any teaching philosophy. Consequently, my main mission while working with the participant was that she became more autonomous in her learning. Independence makes apprentices realize they can follow their own intellectual objectives and discover a world on their own. It causes motivation to increase and last longer too. In addition, people who are able to set goals and manage their own learning are much more likely to take up further study and become lifelong learners.

When autonomous learning has been achieved, the teacher becomes less of an instructor and more of a facilitator. Additionally, learners stop regarding the professor as the main source of knowledge. I consider paramount to back my students in their thinking processes to reflect on their own learning and to decide what they want to learn. In order for apprentices to discover problems, knowledge gaps, and confusions; they must develop self-evaluating skills as well. When students monitor their learning, they can see how they have progressed.

The best method does not exist since none of them can satisfy everyone. Conventional methods do not allow learners to choose what or how they want to learn. They also restrict critical thinking. Before adopting any approach, the type of apprentices and the social context should be regarded. This becomes fundamental in inclusive education. As educators we can improve acquisition when we find out what is best for our classroom based on our own experience.

Furthermore, the foundation of my instruction is on constructivism, because it defends the importance of providing the student with the tools to generate scaffolding that will facilitate the construction of their own solutions. Educators should promote that students work collaborative because it fosters social negotiation instead of peer competition. They must show support when problems or doubts arise, and provide activities that generate active learning to help learners build their own knowledge. Therefore, using a single method restricts the roles for both apprentices and lecturers. It constrains the strategies and processes to be used too.

Professor-student interactions must be based on a sense of belonging and respect. In order for students to learn, they must feel comfortable at all times. Also, they have to guarantee that lessons take place in a welcoming and safe environment. These relationships should not be centered on academic achievement only.

The learners' needs, concerns, questions and interests must be considered at all times**.** However, educators should be careful that, when trying to meet the participant's needs, she is not singled out. Intrusive aid should be rejected. When apprentices feel they are taken into account, learning becomes led by their inherent vigor and curiosity. Whenever possible, I let the participant choose the activities and thank her contributions.

Educators who teach students with VI need unique personality characteristics, skills, and sensitivity. Classes should be conducted in a climate of openness and criticism. Professors and tutors should acknowledge, cultivate, exploit and enhance the capabilities of the scholars. Hence, they need to know about their students, human motivation, and development. They should also be competent regarding attitudes, because they have a consequential outcome on behavior. Empathy is decisive in teaching effectiveness**.** In this way, lecturers should be aware that mistakes are part of the learning process.

We construct knowledge when we interact with other people. Mentoring is probably the first way we start learning. The people who surround us while we are growing up are our constant teachers. Mentoring is very powerful because it is a way of bridging gaps. It comes in many shapes. In our lessons I also focused on different needs of the student, not only the academic ones. We worked together to accomplish common goals. Individual tutoring helped the student improve her communication skills.

Attitudes towards students with disabilities have changed during the last years. It is no longer admissible to exclude anyone from mainstream educational institutions. The problem is no longer placed in the students. It is the institution's duty to foresee, to adapt, and to meet the learner's needs. Inclusive learning embraces all students, including people with no disabilities. It starts with teacher education. Faculty members are in contact with every day issues and should have the power to elaborate and put into effect strategies that would result in adequate results for all the students. It is not just the educators' responsibility. However,

they have a considerable part in its success which is why their training is essential. Numerous other levels are involved in this process; such as, the society and the government.

When teachers believe in themselves they can have more successful outcomes. Shared experiences from other faculty members can be very valuable. Professors working together towards inclusion can result in great motivation.

Inclusive education should be a long-term project that primarily seeks students with VI to fully participate in society. It is challenging and cannot be achieved by only altering processes and resources. It requires great planning always taking into account the students' needs and considering their differences as fundamental. The perfect model that fits everyone in a classroom does not exist which is why inclusion has to be flexible and adaptive.

On the other hand, a second language cannot be acquired unless a first language has been developed. Language transfer is an important concept involved in the acquisition of a second language. There is positive and negative transfer. Positive transfer means similarities between both languages make learning easier. There are interference errors because of negative transfer. It is common for L2 learners to utilize their thinking processes in their native language when producing in a second language. Cross-linguistic influence makes learners transfer what they know in their L1 to the L2. Then, it is not advisable to use the first language comprehensively because the results would be clearly adverse.

The excessive amount of images and abstract representations in resources makes it difficult for students with VI to learn English. In order to learn a foreign language, they have to work harder. ICTs; such as, screen readers, can be really helpful. Nonetheless, they are not available yet at the Languages Faculty making it even harder for the student to access learning material.

A large amount of information is received by vision making sighted students able to learn a lot by observation. Nonetheless, students with VI do not have this kind of incidental

learning. As a consequence, certain concepts have to be directly explained and taught verbally, with the help of models, or other experiences, in order to be learnt.

Digital literacy has changed the way we teach and learn. The participant should be able to experience new ways of learning English. ICTs allow us to reach massive amounts of information. As a consequence, how we access knowledge has radically changed.

Pedagogical improvement, experimentation, and commitment are fundamental in successful teaching. Management also plays an essential role in the comprehensive development of students with VI, because they propose and accept actions and projects associated to inclusion. Educators should be incorporated in every plan because they can share their experience.

People surrounding students with VI, including faculty members, tutors, classmates, management can promote or prevent their full development. Teacher must be trained so that they can expand meaningful and comprehensive learning.

Learning a second or foreign language can act as a compensatory function which can also help to enhance concept comprehension. The development of the first and that of the second language are not equivalent. It cannot be supposed that a second language is learnt only because there were no mayor problems when acquiring the first language, especially in children with visual impairment. In the participant's case I did not detect any difficulty in learning a foreign language. Even though she receives limited information from the environment, because English instruction is highly visual, her auditory sense compensates for scarce data.

The participant has great auditory memory which allows her to learn very complex lexical chunks and utterances. That gives her control of what she wants to say. Repeating is a strategy that in occasions becomes useful. She has a really good command of Spanish, even better than

that of other students. The same happens with English. She knows and uses constructions that not all students at her same level master.

Learning a foreign language can provide people with vision impairment with better job and education opportunities. It also gives them the chance of participating in various learning and social events. Furthermore, it contributes to strengthen cultural awareness. Unfortunately, there are many obstacles a person with vision impairment must face. Professors frequently base their lessons on books full of pictures as their only teaching material. Their methods depend on vision or on audio-visual perception too. There is also a complete scarcity of reading material available in Braille. Faculty members have not received formal education or are unaware of the requirements of students with VI or how they learn. Most of them ignore how to adjust their teaching approach to their different requirements.

In occasions it is hard for a person with vision impairment to understand abstract concepts because they receive limited information. This means they have to compensate with the rest of their senses. On the other hand, it is common they cannot use the remaining senses to learn some ideas that are taught only visually and cannot form hypothesis of those linguistic aspects. As a consequence, they depend on what they already know, and this can lead them to confusion in the notion taught.

The participant is an engaged member of society. She is currently conducting her internship teaching at a school, among other activities. For her, languages are not just a tool; they are a fundamental part of her professional development.

Mainstream evaluation should be adapted so that it becomes an ally that promotes learning and progress in all students. It should include a great variety of methods and strategies because a grade is not enough. For example, observations and conversations with apprentices help teachers obtain information to expand feedback. Students, teachers, class peers and tutors should take part in this process. In inclusive assessment, the collection and

interpretation of results allow educators to adapt their teaching and define what follows in learning; and thus, get students reach their goals. Teachers are largely responsible of implementing inclusive assessment in mainstream institutions. That is why in-service and specialist training, support, and flexibility become crucial.

The most successful students are those who learn to reflect on their achievements and evaluate themselves. Portfolios are a form of inclusive assessment. They provide tools for apprentices to understand more about their weaknesses and strengths and, hence, make decisions about what they still need to know. As a consequence, learners become the center of the evaluation process. Likewise, reflection, self-monitoring, self-evaluation and self-correction acquire great value as integral parts of learning. The lack of evidence on a subject forces apprentices to reassess what they think they know. Reflection is not paramount only for students, it is also for teachers.

Evaluation has many feedback purposes that have nothing to do with just grades or comparisons among students. When the mark goes to the background, assessment becomes an essential part of the process of continuous and self-regulated learning. It becomes formative by leaving judgments aside and, as a result, there are endless benefits for everyone involved in education.

Finally, apprentice autonomy highlights that students can learn regardless of the methods employed to teach them. Teaching is increasingly effective when apprentices have a more active role in controlling their own learning. Students, as a result, construct the way they comprehend the language and its learning. Consequences of learning being based on the students' needs and preferences are it becomes more personal, focused, and successful. The participant has demonstrated that there are no obstacles for her. Education should not be one.

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Appendix A

Activities carried out during mentoring

Evaluation S=satisfaction L=learning U=usefulness A=applicability R=results

Date	Topic	Activities	S	L	U	A	R	Total	Comments
January									
14	**Exam**	All the questions were multiple choice. I read the questions and the options and she told me her answer. She had five incorrect answers out of 35 questions. The topics related to her mistakes were possessives, "***have***" to talk about possession in the simple present, question words, third person singular in the simple present, and the auxiliary verb do for the simple present.							The topics related to her mistakes were possessives, have to talk about possession in the simple present, question words, third person singular in the simple present, the auxiliary verb do for the simple present.
16	**Simple present**	I said the name of a country and she told me a celebrity from that country. Then I said the name of a celebrity and she had to tell me where he or she came from.	2	1	1	1	2	**7**	It was interesting I said: "Bill eats in good restaurants" and she understood: "Bill it's in good restaurants". The sentence did not make any sense so when I repeated it once again and slowly she was able to understand. She corrects herself constantly. I also found out more things about her. Now I know she has two brothers and one sister. She loves cats, just like me.
		I said a sentence in affirmative and she had to change it to the negative or use the opposite adjective.	1	2	1	2	2	**8**	
		I described a person from a different country and then she had to do the same thing. We used: like, speak, live, work or study, drink, wear, have, and eat.	2	2	2	2	2	**10**	
		We gave a presentation about our daily routine.	2	2	2	2	2	**10**	
18	**Subject and object Questions**	I gave her the answer and she told asked me the question.	1	2	1	2	2	**8**	The participant has, in general, a really good pronunciation. She repeats exactly what she is asked to do so. She does not have the problem that some students have when they read the word and they interpret the way it is pronounced. Then they mispronounce the word even if they are supposed to only repeat.
		She asked questions using the words I gave her. She put all the words in order.	2	1	1	1	2	**7**	
		She told me the name of a family member and I asked questions about that person. Then she asked me questions about my family member.	1	2	2	1	2	**8**	
		I thought of a famous person and she had to guess who that celebrity was. She had to guess in 15 questions. Then we swapped roles.	2	2	2	2	2	**10**	
23	**Present simple and present continuous**	We gave a presentation about a friend and provided general information.	2	2	2	2	2	**10**	Spelling is a hard topic for everyone, but I have noticed it is particularly difficult in this case. Whatsapp has been helping us, but I am not sure that too much time between the lesson and when the participant reads it is helping. We have been doing exercises similar to those on her book. They are time consuming because I have to read everything. However, she has the Braille version of the book. Even if it takes her longer to read in Braille it is faster than when I have to read everything.
		I described a celebrity but didn't say the person's name. She then tried to guess who the celebrity was. We swapped roles	2	2	2	2	2	**10**	
		I put a recording and the participant told me what the people were doing.	2	2	2	2	2	**10**	
		I described an action and she told me what I was doing. For example: I chop the onions and I put them in a frying pan. I add salt and I stir. I then add the chicken and fry it…we then swapped roles	2	2	2	2	2	**10**	
		I mentioned a member of her family and she told me what that person was doing in that moment. For example; I said "mother", so she said "my mother is working right now"	1	1	2	2	2	**8**	
		I read a text and she chose the correct answer from two options.	2	2	1	1	2	**8**	
		I said an activity and she had to use that same verb but she had to use a different object. For example. I am eating tacos... she said: I am eating pizza.	2	1	1	1	2	**7**	
25	**Present perfect and simple past**	I read a pair of sentences of which one was incorrect. She had to correct the wrong sentence by replacing the past simple with the present perfect.	2	2	1	2	2	**9**	She has superior memory and relies on it. The activities where she has to put words in order are very easy for her.
		I read sentences and the participant chose the more appropriate tense for the verbs.	2	2	1	1	2	**8**	
		For the simple past she had to complete sentences. For example; I said: Diego was at work for 16 hours" So she said: "Diego was at work for 16 hours because he had too many things to do."	2	2	1	2	2	**9**	
		I gave her all the parts of a sentence and she put them in order.	2	1	1	1	2	**7**	
		We described a very happy day.	2	2	2	2	1	**9**	
29	**Present perfect simple and continuous**	I read two texts. She had to correct them, if necessary, using the present perfect continuous, the present perfect or the past simple.	2	2	1	2	1	**8**	She does not have any problems producing. She corrects herself very easily.
		I read some sentences. I gave her four options: correct, present perfect, present perfect continuous, or simple past. She had to choose an answer.	1	2	2	2	1	**8**	

29	**Present perfect simple and continuous**	She had to give a presentation about her favorite singer or band using both forms of the present perfect.	2	2	2	2	2	**10**	
		I said a time expression and she told me something that she had done for that period of time; for example, All my life…	1	2	2	1	2	**8**	
February									
1	**gradable and extreme adjectives**	I read a text. She had to correct certain parts, and some were already correct.	2	2	2	1	2	**9**	There are many topics that the participant already knows and can use them in different situations. However, extreme adjectives were completely new for her. Anyhow, she was able to grasp the main idea very quickly.
		I read some sentences with gradable and extreme adjectives and she had to decide if they were correct or incorrect.	2	2	1	1	2	**8**	
		I asked the participant some questions and she had to answer using gradable and extreme adjectives.	2	2	1	1	2	**8**	
		"I am thinking of a word that tells how clothes feel when they come out of the washing machine (damp)"or "I am thinking of a word that tells how you get dressed on cold mornings(very quickly).	2	2	2	2	1	**9**	
		We also had stimulus-response activities where I said: "products-cheap" and the participant made a sentence; for example: Products at *Prichos* are extremely cheap.	2	2	1	1	2	**8**	
		In this activity we both wanted to brag. For example I said: "My house is immensely big" and then she said: "mine is completely huge" and so on.	2	2	1	2	2	**9**	
13	**Narrative tenses**	I explained when to use each tense; for example, we use past simple for the main events	2	2	1	2	1	**8**	The participant does not have any problems producing. In most cases, she corrects herself.
		I played a conversation between two people and then she had to narrate what happened	2	2	2	2	2	**10**	
		We filled in the gaps in a story with the appropriate form of the verb.	2	2	1	1	2	**8**	
		I read a group of sentences aloud (usually only three or four sentences in the group); the group of sentences either told a story or was related in thought. One sentence in the group is either unrelated or does not add a pertinent fact to the story—the participant selected the sentence that did not belong. For example: "John went to the store. He took his wagon to carry the packages home. The cookies were in the oven. He was of great help to me."	2	2	1	2	2	**9**	
		We worked with the Vox pops interviews.	1	2	2	2	2	**9**	
15	**Used to**	I asked her questions about the way things used to be when she was 12. Then I summarized everything. For example; I asked her questions such as: "Did you use to live in another city?" Did you use to have short hair? Then she asked me.	2	2	2	2	2	**10**	The participant has no problem producing and it is probably what she enjoys the most. She is not shy either, which helps her participate a lot in class.
		We gave a presentation about how our lives used to be different when we were kids.	2	2	2	1	2	**9**	
		We shared the things we used to believe. For example; I used to believe that if I cried a lot I would ran out of tears.	1	2	1	2	2	**8**	
		I told the participant two true sentences using used to and a false one. She had to guess which one was false. Then we swapped roles.	2	2	2	2	1	**9**	
		This was a guessing game where we talked about what people used to do and didn't use to do before certain inventions existed and we had to guess what the invention was. For example; before this was invented people used to use toothpicks or human urine.	2	2	2	2	1	**9**	
20	**Multiword verbs**	I told her a multi-word verb and she made a logical sentence using it.	2	2	1	1	2	**8**	Sometimes the activities had to be very controlled. The participant has a very suitable attitude for learning and works hard.
		I read a text and then we matched multiword verbs with their definition	2	2	2	1	2	**9**	
		We asked and answer questions using multi-word verbs. I gave her the information and she asked a question using the verb. For example; I said: "count on /family/ can", so she asked:" can you count on your family?"	2	1	1	1	2	**7**	

20	**Multiword verbs**	She asked me five questions using five multiword verbs she chose. I asked 5 questions too.	1	2	2	2	1	**8**	
		I told her a multiword verb and she told me its meaning. I gave her a definition and she told me what the multiword verb was.	2	2	1	2	2	**9**	
22	**Modals and phrases of ability**	We asked questions to find out what we were able to do when we were 12 years old. For example; I said "drink coffee" and she asked me: "Were you able to drink coffee when you were 12?"	1	2	1	2	2	**8**	She has a good command of many topics and the activities go very smoothly.
		We picked a product and we prepared a commercial in which we told the consumer all the things he or she would be able to do if they bought our product.	2	2	2	2	2	**10**	
		We discussed about things that we would or wouldn't be able to do in the future. For example: What things will we be able to do in the future that we can't do now?	2	2	2	2	2	**10**	
		We imagined we were moving to another country. We gave a presentation about the things that we would or wouldn't be able to do when we moved to another country.	2	2	2	2	2	**10**	
27	**articles**	I read sentences and the participant had to complete them with a, an, the, or nothing.	1	2	1	2	2	**8**	The participant has a really good memory which helps her perform the activities.
		The participant completed a text with a, an, the, or nothing.	1	2	1	2	2	**8**	
		We put together a time capsule to tell people in the future about Puebla, Mexico, and the world that year. We chose six objects which we thought were the most important and we explained our choices.	2	2	2	2	2	**10**	
		I told the participant all the part of the sentence and she had to put them in order.	2	2	1	1	2	**8**	
		I described a picture and then she told me what she remembered.	2	2	2	2	2	**10**	
March									
1	**future forms**	I read sentences in Present continuous. The participant told me if they were correct or incorrect. If they were incorrect, she had to correct them.	2	2	1	1	2	**8**	The participant prefers the activities where she can produce because she has a very good performance.
		First we started talking about what life would be like one year from now. Then we moved on to five years, ten years, and twenty.	2	2	2	2	2	**10**	
		I asked the participant a question she was supposed to answer in the negative and then she said what she was going to do. For example; I asked her: "Are you going to drink *pulque* tonight" so she answered: "No, I am not going to drink *pulque* tonight, I am going to drink water".	2	2	2	1	2	**9**	
		We gave a presentation about our New Year's resolutions. We imagined a new year was going to begin, and we were going to do some things differently.	2	2	2	2	2	**10**	
		We planned a vacation in three different places and decided what we would do for our vacation. We needed four activities to do in each place and we could not repeat the activities. For example; We will go to Oaxaca, We will eat mole, we will pray at the cathedral, we walk on the main avenue, and we will buy mementos.	2	2	2	2	2	**10**	
		We pretended to be politicians that wanted to be elected to public office. We created a list of promises for the people. We had to make 10 promises without repeating any verbs.	2	2	2	2	2	**10**	
6	**Zero and first conditionals**	we also asked questions about things we did in specific circumstances. When it was her turn to ask me, I told her the action for the condition and the result, and she asked me a question. For example; "What eat/really hungry". So she asked me: what do you eat when you are really hungry? We took turns asking and answering.	2	2	2	1	2	**9**	She already had a good command of these topics, so the activities were easy for her.
		The participant had to describe what she considered the best teacher and boss using the zero conditional.	2	2	2	2	2	**10**	
		I gave the participant an object and she decided what the instructions for the object were; for example, if you press this button you turn the fan on.	2	2	2	1	2	**9**	

6	**Zero and first conditional**	The participant once told me she wanted to be a youtuber. She gave a presentation about what she had to do to achieve that goal using the first conditional.	2	2	2	2	2	**10**	
		We imagined we were trying to help someone decide on a place to go on vacation. We thought of three places. For example: "if you go to Paris you will spend a lot of money."	2	2	2	2	2	**10**	
		The participant likes cats a lot. We pretended she wanted to get a pet. She had to use the first conditional. For example; I am thinking about getting a snake. She said: If you get a snake you will have to feed it mice.	2	2	2	1	2	**9**	
		We imagined we were little children and we were writing a letter to the Three Wise Men. In the letter we told them what we wanted and what we would do if they brought us those things. For example: "If you bring me a cat I will take care of it every day."	2	2	2	2	2	**10**	
8	**modals of obligation**	The participant had to make sentences using "have to". I gave her a time expression, and she told me something that she or someone else had to, has to, or would have to do. For example; I said "every day" and she said: "I have to wake up at 5:30 every day."	2	2	1	1	1	**7**	She was familiar with this concept and structure and therefore she did not have any problems carrying out these activities.
		We practiced making sentences with "don't have to" and "shouldn't". We chose a celebrity and the participant told me what that celebrity didn't have to or shouldn't do the activity. For example: "Beyoncé doesn't have to wear a tie to work."	2	2	1	1	2	**8**	
		The participant described her responsibilities. She told me all the things she has to do as a student.	2	2	2	2	2	**10**	
		We talked about some of the things that will change in the future, and what people have to do or will have to do. For example; What will people have to do for food?	2	2	2	2	2	**10**	
		We talked about things teachers have to do, the most difficult part of their jobs, and the best part of being a teacher. We also mentioned what other professions we considered difficult, and the things people in those professions had to do.	2	2	2	2	2	**10**	
13	**comparatives and superlatives**	We compared famous people, I said an adjective, and the participant made a sentence comparing any two famous people. For example if I said: "intelligent" and she said: "Natalie Portman is more intelligent than Ninel Conde."	2	2	1	2	2	**9**	Her previous knowledge and her memory are two elements that really aid the participant. She is also very motivated.
		we made a list of things we could compare between two restaurants (or food stands) such as; service, drinks, desserts, menu, etc. then we compared two restaurants: McDonald's has better desserts than burger king, etc.	2	2	1	2	2	**9**	
		The participant had to choose two products and she had to tell me how they will or may be different in the future.	2	2	2	2	2	**10**	
13	**comparatives and superlatives**	We practiced using superlatives with our experience as a reference group. I said an adjective, a noun, and a verb, and the participant told me the superlative, using her own experience as a reference group. She had to tell me why she delt that way too. For example; I said "bad restaurant/eat at". She answered: "*La Jirafa* is the worst restaurant I have ever eaten at".	2	2	1	2	2	**9**	
		The following activity can be a game when there are more students. I said a noun, an adjective, and the reference group. The participant had to ask a question using that information and then give the answer. For example; I said: "mountain, 2nd high, the world", so she had to ask "What is the second highest mountain in the world?"	2	2	1	2	2	**9**	
15	**modals of deduction**	I gave the participant some information about someone and she told me what must have happened to them. For example; I said: "John had a terrible stomachache. Why?" She said: "He must have eaten too much."	2	2	1	2	2		Her previous knowledge enhances her learning. There are many things she can do without help. She also contributes with her knowledge in her regular classes.
		We told each other about interesting things and we used must have to comment on them. For example; I said: "I once met Gabriel García Márquez." So she said: "That must have been exciting."	1	2	2	2	2	**9**	

15	**modals of deduction**	I told the participant a deduction and she told me why I came up with it. For example; I said: "The students must have understood the simple present structure very well". So she said: "The students got a 10 on their exam."	2	2	1	2	2	**9**	
		I read some sentences and then she made a deduction. For example: "Marie owns a big car and a yacht." So she said: "She must be very rich."	2	2	1	2	2	**9**	
20	**Quantifiers**	We identified some nouns as mass or count.	2	1	1	1	2	**7**	She is very motivated in learning English and she knows how important it is. She knows how to express her ideas.
		We pretended we were at the participant's home and we were deciding what we needed to get at the store. For example; "I am going to *Chedrau*i. What do we need?" "We need some tomatoes." "Please bring a lot of bananas."	2	2	1	1	2	**8**	
		I asked the participant what she would take with her if she went to a desert island in the tropics. There is fresh water on the island, but no electricity. She can take 100 kilos with her. She needed to decide what she wanted to take with her.	2	2	2	2	2	**10**	
		The participant had to describe her favorite place, and tell me why she liked it so much.	2	2	2	2	2	**10**	
		We mention some places where we could find a lot of some different kinds of things. I said the name of a thing, and the participant said where there is a lot of that thing. For example, I said: "computers". So she said: "There are many computers in the computer lab".	2	1	1	1	2	**7**	
22	**Reported speech**	We practiced reporting commands. I said a situation and she gave me examples of what people in that situation might say. For example; I said: "doctor to patient" so the participant said: "The doctor told the patient to take his medicine."	2	2	1	1	2	**8**	This is not a simple topic, but again her previous knowledge helped her have a good command of the structures.
		I told the participant some lines or a verse in a song. She then had to use reported speech. For example; I said: "We all live in a yellow submarine." So she said: "The Beatles said they all lived in a yellow submarine."	2	2	2	2	2	**10**	
		I played a conversation and she reported what she remembered.	2	2	2	2	2	**10**	
		We heard parts of tales and then she reported those parts. For example: Little Red Riding Hood said the wolf had very big eyes.	2	2	2	2	2	**10**	
		We thought of things people who might ask questions. Then she had to report something that someone asked me. I told her what that person said without revealing who it was. For example; I said: "This person asked me if I had my driver's license". She guessed it was a police officer, and then reported: "The police officer asked you if you had your driver's license."	1	2	2	1	2	**8**	
27	**verb patterns**	We made sentences about our life using verb patterns. Three were true and three were false. We said our sentences and then decided whether they were true or false.	2	2	1	1	2	**8**	Some topics are more difficult than others. This one implies the use of memory a lot.
		We told each other about our family members. For example; My son loves to play basketball. He enjoys watching videos on Youtube…	2	1	1	2	1	**7**	
		We answered a set of questions using different verb forms. For example; what have you always wanted to do, but never got around to?	2	1	2	1	1	**7**	
		What Does Not Belong? I dictated three or four verbs with some relationships; included in the group of a verb having no relationship with the others; the student must select the verb that did not fit.	1	2	1	2	2	**8**	
		We completed sentences with the correct form of the verb.	2	1	2	1	1	**7**	
29	**the passive**	I mentioned a product and the participant said where it is made. For example; I said *Camote* candy and she said: " *Camote* candy is produced in Puebla.	2	1	1	1	2	**7**	She already knew this topic so it was basically a review. Sometimes she knew the topic because of the previous course or because she had already seen it in her course.
		The participant responded to the name of a country with the language that is spoken there. For example I said: "Australia" and she said: "English is spoken in Australia"	2	1	1	1	2	**7**	
		I gave the participant a cue and she asked a question which she had to answer. For example; I said build- Chichen Itza and Uxmal. So she asked: "Who built Chichen Itza and Uxmal" And then answered: The Mayas built Chichen Itza and Uxmal.	2	2	2	1	2	**9**	

29	**the passive**	She asked me questions about who composed a piece of music or sang a song. I asked her questions too. For example; I said: "Who sang Yesterday" So she said: Yesterday was sung by the Beatles.	2	2	2	1	2	**9**	
		We answered questions about computers and games in the future. For example; "Will games like dominoes and chess still be played in the future?	2	1	2	1	1	**7**	
April									
3	**defining and non defining clauses**	We thought of an object and described so that the other person could guess what it was. For example; This is an object that almost everyone has. It is an object that is used mainly for communication.	2	2	1	2	1	**8**	The participant is very enthusiastic, self confident, independent. Her speech is in most occasions pragmatically correct.
		We thought of a person and described it so that the other person could guess who we were talking about. For example; This is a woman who lived in the 17th century. This is a woman who became a nun to be able to write.	2	2	1	2	2	**9**	
		We invented our own products and then described them. For example; this is a cake that won't make you fat.	2	2	2	1	2	**9**	
		We filled in the gaps in a story with the appropriate word.	2	1	1	1	2	**7**	
		We completed sentences with a logical clause	2	2	1	1	2	**8**	
5	**second conditional**	We practiced giving advice, using the second conditional. I told her a situation and she gave me some advice using "If I were you---" For example; I said: "I have a stomachache" So she said: "If I were you I wouldn't eat spicy food:"	1	2	2	1	2	**8**	These lessons gave us the opportunity to bond so we also talked about non academic topics. Spelling is a matter for further research. I tried to learn how to write and read in Braille; however it was not that convenient either. The participant has no problems with pronunciation, but spelling is an issue.
		I gave the participant second conditional sentence starters such as; "If I had four legs" or "If the internet disappeared" that she had to complete.	2	1	1	2	2	**8**	
		We asked questions about what we would do if some different things happened. We took turns and I sometimes gave her a condition so she could ask me or I would ask her. For example, I asked her: "What would you do if you won the lottery?"	2	2	1	2	2	**9**	
		We imagined we found a magic lamp and a genie granted us three wishes. We gave a presentation about our three wishes.	2	2	1	1	2	**8**	
		We described how our lives would be different if we were men.	2	2	2	2	2	**10**	
10	**Third conditional**	I read a story and then the participant had to make third conditional sentences based on the story and how things would have been different.	2	2	1	2	2	**9**	Object and possessive pronouns are two topics that are complicated for the participant.
		We talked about what it would have been like to live in the 19th century. For example; If I had lived in the 19th century, I would have sent messages using the telegraph instead of using a smartphone.	2	2	1	1	2	**8**	
		We gave a presentation about a very bad day when everything went wrong and what we thought we could have done differently.	2	2	1	2	2	**9**	
		We talked about how our lives would have been if we had been born in another country.	2	2	1	2	2	**9**	
		We talked about what would have happened if some historical events hadn't happened. For example; the sinking of the Titanic, Second World War.	2	2	1	2	2	**9**	

Appendix B

Interviews with the teachers

Table 1. Categories and subcategories from interviews with Teacher 1 with examples

Category	*Subcategories*	*Examples*
Challenges	***Lack of interest***	pareciera que nadie, nadie más le interesa, si está ella o no está, o si qué se puede provocar ¿sí?
	Attitude	Pero hay una actitud, de pronto de flojera y les daba de pronto miedo de acompañarlo.
		...el compromiso lo tienen pero a lo mejor el miedo de enfrentarse a algo que no saben manejar y que no están preparados para ello. Entonces a veces rehuían a darle asesorías al chico. Entonces llegó un momento en que el chico se aburrió y dijo: "no pues ya no sigo".
		Entonces, también el chico, el mentor que la empezaba a acompañar de pronto llegaba tarde, de pronto, ¿no? No había ese compromiso de estamos ayudando al otro, no se veía… de pronto el chico también tenia sus problemas existenciales y en esa etapa andaba y … y finalmente pues después le dije, bueno ya incluso había terminado su servicio social, porque son de servicio social, y entonces le dije "bueno, yo ya me quedo con ella."
		Entonces sí trataron de ser más tranquilos, más mesuradas pero sí, sí de pronto como que querían meterla ahí de pretexto para obtener cosas, y como que no, no era adecuado.
	Exclusion	En primera hay un problema con la cuestión inclusiva.
		Pues finalmente eso, la forma en que la gente todavía no acepta o no entiende que pues es un ser humano más que está ahí, que tenemos que buscar formas de tratar de integrar.
		Entonces yo creo que eso fue el hecho de no aceptar que tienes otros compañeros con otras características. Y estoy hablando, bueno principalmente por los alumnos, porque ahí sí es obvio, en varios de ellos se rechazó.
		Hubo un problema de… la psicóloga me vino a hablar y me dijo: "oye, es que ella fue a hablar conmigo y me dijo que se siente rechazada, que se siente excluida, que ya no lo es lo mismo como la experiencia que tuvo en el primer cuatrimestre que todos la acompañaban todo esto, todo lo otro." Entonces le dije: "¡ve a preguntar!, si te doy el pase a mi grupo y pregunta". Llegó de tal manera que no se diera cuenta el grupo que ella se había ido a quejar. Entonces dijo: "¿Cómo anda la situación? Que no se qué que no se cuando. Entonces ella dijo: "es que yo me siento rechazada, ya nadie me ayuda a esto ya nadie me ayuda a lo otro". Entonces los alumnos dijeron es que ya no te ayudamos, porque nosotros sentimos que tú ya estas mas adecuada a la escuela, ya sabes donde están las cosas y tú puedes hacerlo porque lo puedes hacer. Entonces dije ¡Ah, okay! Quizás no le habían dicho; "Tú ya puedes tú" porque ella puede moverse fácilmente.
		Pues ya, también hablé con el grupo porque de pronto había, sí había un rechazo. Yo todavía no me sigo explicando porqué. Siempre había tres chicas que se sentaban con ella, pero cuando llegaba el momento de trabajar en equipo o en parejas, a veces trabajaban con ella o a veces, y había una principalmente que se volteaba y le decía a la otra: "¿trabajo contigo?" Aunque de por default le tocaba trabajar con ella.
		Pero sí había una que otra que como que no aceptaba esa situación, que hubiera una chica con esas características en el salón de clase.
	Inexperience	los chicos tenían miedo, porque decían ¿y si le da esto yo no sé cómo atenderlo?
		Entonces ya empezamos clase y le digo: "¿Como te voy a trabajar a ti?" Entonces, como trabajo a los mentores, le pedí a un chico que llegara a acompañarla, estuviera con ella porque lo que yo hacía era pues llegar, escribía de pronto y me decía: "¿Qué está haciendo?" Le digo ¡ah! ¡Sí, es cierto! Entonces tengo que escribir y tengo que hablar porque ella me tiene que escuchar.
		Le dieron clase, pero nunca ha habido una comunicación entre nosotros los docentes en cuanto a ¿qué hiciste?, ¿cómo trabajaste con ella? Es más, la institución no avisa, hasta donde yo sé, a la unidad académica que va a tener alumnos con ciertas características. O si lo sabe la unidad académica, no le avisa al docente que vamos a tener. Y entonces no nos avisan, "oye en tu sección va a haber esta chica", no hay capacitación, no hay nada. Te enteras que la vas a tener cuando es el primer día de clase, entonces dices ¿cómo? ¡Espérate! ¿qué voy a hacer con ella? Ella llega conmigo en lengua meta dos en el segundo semestre para ella. Entonces llega conmigo, y digo "¿cómo lo voy a trabajar?".

Challenges	***lack of communication***	Antes de ella ya se tuvo una chica invidente, pero igual. Le dieron clase, pero nunca ha habido una comunicación entre nosotros los docentes en cuanto a ¿qué hiciste?, ¿cómo trabajaste con ella? Es más, la institución no avisa, hasta donde yo sé, a la unidad académica que va a tener alumnos con ciertas características. O si lo sabe la unidad académica, no le avisa al docente que vamos a tener. Y entonces no nos avisan, "oye en tu sección va a haber esta chica", no hay capacitación, no hay nada. Te enteras que la vas a tener cuando es el primer día de clase, entonces dices ¿cómo? ¡Espérate! ¿qué voy a hacer con ella?
		..."es que ahora no lo voy a necesitar mucho porque reprobé lengua meta tres y estoy repitiendo". No sabía, ¿por qué no me dijiste? hubiéramos visto cómo te podíamos a apoyar porque sí, ya vienen temas más complejos, pero igual no sabemos cómo le trabajó la otra maestra. E igual lo mismo, esa falta de comunicación porque igual yo estoy hablando de falta de comunicación pero tampoco le mande un reporte a la maestra de lengua meta de cómo se trabajaba con ella o cómo o qué estrategias se podían o yo había implementado con ella y bueno si pudiera ellas aplicarlas o no.
		...pero los Lobos no, entonces, pues finalmente pues no se involucraban mucho. Ahí a lo mejor falto algo de comunicación entre ellos conmigo. Pero sí, no se dio mucho ese acompañamiento.
		Yo de estas cosas me entero apenas, por ejemplo que del libro que ella está ahorita usando le falta la unidad cinco, no se la dieron el semestre pasado. Se supone que debería de tenerla, se debería porque se supone que se le sacó. Y no la tiene la unidad cinco y de la unidad seis empieza en la mitad… Dice que tiene dos de la siete, pero eso no me lo ha reportado. Ese libro lo está repitiendo. Y entonces ella tampoco comentó: oiga, ¿qué cree?, me falta el tal unidad.
		Pues ahí en eso también yo estaba pensando cuando ella me dijo que había reprobado la materia de lengua meta tres dije, bueno ¿que falló? ¿Y qué fue lo que le faltó? O pues igual, yo sí tenía contacto, contacto con ella, pero por el libro, pero ella nunca me dijo estoy teniendo problemas para entender o quiero asesorías, porque mientras estuvo conmigo pues venía a tomar asesorías, pero cuando ya tomó la lengua meta tres, ya no. Entonces, y nunca nos dijo "las necesito". " y yo nunca le pregunté si las necesitaba. Entonces yo creo que ahí tendría una forma de apoyarla y preguntarle: ¿cómo vas? En qué tienes problemas y te apoyo, ¿cómo te oriento?, ¿necesitas asesorías?, ¿qué necesitas?
	Staff	No, no, solamente este chico de servicio social. Existe también la figura del Lobomentor y a cada sección de nuevo ingreso se le asigna un Lobomentor. El Lobomentor que estaba asignado a su sección sí de pronto iba, la llevaba, iba por ella, pero principalmente la iba a dejar , pero finalmente no se involucro para poder acompañarla en el salón de clase, cuando el mentor, que es el de servicio social, el chico que hace servicio social conmigo, yo les pregunté a los Lobomentores si alguien podía apoyarme. Sí hubo algunos que dijeron yo puedo tal día, yo puedo tal día, pero en esa época se vino una como situación de…que no había clases, hubo otras situaciones que de alguna manera no se siguió el acompañamiento como tenía que ser a veces los chicos iban, a veces no. Entonces como finalmente era un apoyo que podían hacer y pues de manera no obligatoria, porque los mentores sí lo tenían que hacer obligatorio porque era servicio social,
		Los maestros saben que tenemos mentores y Lobomentores, pero a veces pareciera que ellos, pues no, pues ahí están… o sea ¿qué hizo? ¿O cómo la apoyó? ¿O con quién se apoyó? Pero nosotros contamos con Lobomentores. Contamos ahorita con más Lobomentores que mentores y que bien pudiéramos, si la maestra necesita el apoyo, porque lo tiene que pedir el docente. Si el alumno, si ella llega con un Lobomentor no sé hasta qué punto la maestra esté de acuerdo o en desacuerdo, sí tienen que solicitarlo. No sé ahorita cómo lo esté manejando, si la tiene olvidada.
	Evaluation	La forma de evaluar para ella no la iba yo a hacer de la misma manera que con los otros, incluso con el libro de texto.
		Finalmente, yo sabía que no la iba a evaluar de la misma manera que a los demás.
Strengths	***Participant's strengths***	Yo veo en ella una independencia y una madurez muy buena, que no está esperando a que alguien la consienta o que la apapache. Yo sé que ella lo puede hacer, yo no sabía hasta que ella me dijo que estaba en un grupo de maratonistas.
		Sus fortalezas son esas, que ella está motivada. Se ve que en su casa le han fomentado eso de que ella es, de que no por su discapacidad ella no puede. Y se le nota en su forma de ser, en lo abierta, en que entabla conversación, o a veces incluso critica.
	Classmates attitude	Algunos sí se concientizaban, otros de pronto como que sí, como que no.

Strengths	***Family support***	A veces sí, es muy crítica y eso está bien pues su condición no la está limitando a que, no tú porqué eres así , tú no puedes hacer esto, y creo que eso ahí sí han hecho muy buen trabajo sus papás y le han permitido o le han dicho, no se han quedado con las barreras que a veces les dicen: "tu hija va a quedar hasta ahí y ya no se va a poder hacer nada" . Y como padres, muchos padres se lo creen y dicen no, hasta aquí quedó mi hijo, o hasta aquí quedó mi hija y no, al contrario ellos no. Al parecer se nota que, pues le han sabido motivar de tal manera que ella no se siente perdida aquí entre todos.
	Staff support	Pues sí podría ser, todavía estamos a medio curso. Mentor podría ser tendríamos ver el horario de mis mentores si tienen horario para esa… de dos a cuatro. Tendríamos que ver porque la mayoría. Sí tengo hasta las cuatro pero la mayoría están dando asesorías. A lo mejor ahí tendríamos que pedir un lobomentor, alguien que nos quisiera apoyar o algunos, porque algunos nos dicen yo puedo tal día, no hay uno permanente.
Materials	***The book***	De pronto había un momento en que había que trabajar en el libro y ella se dormía. ¿Qué hice yo? pues tramité que se le pasara el libro a Braille. Metí el oficio y lamentablemente en la biblioteca central se cuenta con computadoras para pasar información a Braille y de pronto la atiende una persona que es invidente. Entonces, no sé que paso que la máquina estaba mal o que era muy lenta o que se tardaba mucho en sacar. Total que cuando ella estaba en la unidad siete le entregaron la unidad 1, 2 y 3. Yo decía: ¡no puede ser!. Le dije: "¿qué opinas?" Sí le entiendo, puede leerlo…lo puedes utilizar como retroalimentación.
		También tuvo además de tener ese Lobomentor que la apoyaba acá, tuvo otra mentora que la apoyaba para repasar, para contestar su workbook, para contestar sus actividades, de pronto usábamos plataforma. La plataforma del libro de inglés trae ejercicios, entonces venía con esa chica, que también era una chica de servicio social que a ellos les llamo mentores, estudiantes mentores y entonces venían con ella para ayudarla a que le iba leyendo los ejercicios, y ella decía A o B.
Techniques	***Communicative approach***	. Alguna vez hacíamos diálogos, y entonces pues ella con cierto… y a veces la otra persona temblaba, tenía miedo.
		Hacíamos también diálogos, así que siempre ella era incluida con alguien. A veces era con quien estaba junto o era por número de lista iba yo salteando con tal de que todos, o varios pudieran trabajar con ella, y no solamente una persona.
		Pues precisamente las que eran más de comunicativas. Finalmente porque ella, te digo no tenía, al menos lo que yo le detecté ahí en el curso, que no tenía ese problema de timidez o de ser inhibida o inhibirse porque, su característica ella siempre participaba y de hecho, era una de las que más participaba con sus errores, sí. También se le corregía pero eran más las actividades de comunicativas, auditivas también de pronto sí, sí participaba activamente en esas partes.
	Information and communication technologies	Hacíamos los ejercicios, los revisábamos y lo que sí casi no le trabajé mucho, aunque sí me las mandaba, eran las composiciones. Ella sí se tardaba mucho, de pronto, en enviarme composiciones y yo suelo dejarles mucha escritura a los alumnos, ¿por qué? Porque luego es ese el problema que ellos tienen para redactar. Entonces siempre les mandaba yo. A ella le revisaba yo por el correo y ahí le mandaba yo la retroalimentación por correo.
		Pasó, nos comunicábamos por el Whats, por el Facebook principalmente.
		Entonces tramité incluso que se le pusiera el Internet en su computadora para que ella pudiera tener el libro e irlo siguiendo. Lamentablemente el Internet no era muy bueno y no le ayudaba.
	Pair and team work	Después me decía, le digo: "¿Qué hago con las notas? ¿Cómo te vamos a trabajar?" Y me dice: "¿si le puede sacar foto y me las comparte por Facebook?". Entonces se las mandaba por Facebook
	Class work	Entonces, la trabajaba yo así; de pronto pues yo me sentaba con ella y entonces trabajamos.
		Aprendí a que si tenía yo que escribir en el pizarrón tenía que yo escribirlo y hablarlo para que ella pusiera atención. Le sacaba la foto a cada cosa que publicaba o que escribía en el pizarrón para después enviársela a ella por FB y pudiera repasar.
Changes	***Suggested changes***	Pues sí, que yo hubiera recibido una capacitación para saber cómo integrar porque todo lo fui haciendo a la marcha. Si a mí me hubieran dicho, vamos a tomar este curso para saber cómo trabajar con estos chicos y todo, quizás hubiera sido mi forma de incluirla mucho mejor, que eso lo estuve haciendo al momento, tratando de alguna manera pues improvisar, ¿por qué? Porque no tenía yo los elementos, nunca he tenido o tomado un curso de.

Table 2. Categories and subcategories from interviews with Teacher 2 with examples

Category	*Subcategories*	*Examples*
Challenges	***Time constrains***	Definitivamente el tiempo, el tiempo que le dediqué y eso se lo he dicho a ella. Es algo con lo que me quedé. Personalmente no tenía oportunidad de dedicarle tiempo adicional y porque coordinaba la licenciatura, y daba clases y hacia muchas otras cosas.
		Pero la verdad es que sí, sí delegue mucho y no le dedique el tiempo que quería, pero tampoco hubo nadie mas.
	Curriculum	Como te decía es que donde yo notaba mucho, que como tratas de cubrir el programa y tienes que usar los materiales que se utilizan en la escuela en este caso los libros una gran parte de la clase era en función del libro, de los audios del libro, las imágenes, las actividades.
	Prejudice	Yo creo que ahí actuaron un par de prejuicios.
	Inexperience	Desde un principio si hable con ella y le dije que yo no sabía cómo trabajar con ella, nunca me había tocado y de hecho es la primera vez que me toca darle clases a una persona ciega, nunca había vivido esa circunstancia.
		No puedo pensar que en algún momento haya diseñado una clase pensando en el resto y pensando como aparte en ella.
		...pero fue negativo porque no me hizo tan consciente de que requería otro tipo de atención, de que tenía otras necesidades y ya fue en la práctica en la que empezamos a darnos de topes ella y yo
	Staff	y además tuvimos el problema de que como era una prestadora de servicio social yo asumí, equivocadamente, que ella habiendo terminado las lenguas metas, ella ya tenia el 70% de la carrera seria una buena ayuda. Desafortunadamente, la persona que tenía la disposición y el tiempo tenía un nivel de inglés muy bajo, muy, muy bajo, que eso también es harina de otro costal.
	Evaluation	Yo le decía "no te puedo evaluar o no te puedo poner una calificación en función de de una promesa y yo te estoy poniendo una calificación porque no tienes el nivel y si ahorita tú no repasas y repones lo que no has logrado hasta ahorita en el siguiente curso te va a ir peor".
		Por ejemplo, los exámenes igual era otro reto por completo. Al final ya encontré la manera, pero tenia que ser por aparte tenía que darle un espacio completamente aparte porque los exámenes generalmente tienen tiempos; por ejemplo, para el *listening* tú escuchas el audio y te da un tiempo para responder, pero en el caso de ella requería más tiempo para que la persona le pudiera leer cuáles eran las opciones y ella pudiera seleccionar, entonces tenía yo que ponerla en un espacio completamente aparte con que tuvieran el acceso a una computadora y que te permitiera ponerle pausas. Entonces eso fue como muy diferente en relación a eso.
Strengths	***Participant's strengths***	Es una persona positiva, es responsable. Ella como persona y como estudiante, tiene muchas cualidades.
		...ella es muy positiva, tiene una actitud muy positiva, es una persona muy alegre, es sincera, me gusta mucho eso de ella es muy honesta, creo que es una persona tenaz, no se reflejó del todo en el curso, pero creo que el simple hecho de estar ya en educación superior con los índices de deserción que tenemos, con personas con sus capacidades completas y ella siendo una persona discapacitada estar en educación superior, yo creo que representa tenacidad.
	Classmates attitude	Yo creo que no es un problema de actitud ni de valores, al menos el grupo mis alumnos los demás eran muy cooperativos yo no siento que haya sido completamente como ajena a su necesidad, pero no supe como manejarlo.
		De manera espontánea como por ejemplo la prestadora de servicios no llegaba por alguna razón alguna de sus compañeras se ofrecía a ayudarla. O le pedía a alguien porfa échale la mano
	Willingness	Entonces esa fue, como un poquito, la manera en la que pude salvar un poquito digamos de apoyo especial que ella necesitaba. Poco a poco fui haciendo conciencia. Incluso en una ocasión hicimos un digamos un experimento con los demás porque me sentía muy limitada para ayudarla entonces le pedí a todos mis alumnos que trajeran algo para cubrirse los ojos.
Materials	***Material shortage***	El hecho de que te das cuenta de esas cosas; por ejemplo, tu esperas que los alumnos pues ya lean y al leerlo tú ya no tienes que explicarle, con ella es explicarle lo que haya que leer, las imágenes están cargadas, o sea todo el tiempo, el libro está cargadísimo de imágenes. Los videos por ejemplo en el caso de los alumnos pues funcionan mejor cuando tienen una imagen; es decir, no solamente ves las palabras sino que es mucho más atractivo para los alumnos el ver las acciones.

Category	*Subcategories*	*Examples*
Materials	***Material shortage***	Yo creo que sí se necesitaban materiales didácticos especiales, por ejemplo, algo que pasó me llevo con otra maestra y ella dio la clase de taller de materiales y platicando con ella previamente se dio al final del curso que la maestra organizó una exposición de los materiales didácticos que hicieron los alumnos y algunos de ellos hicieron materiales didácticos para invidentes precisamente.
		Haber preparado todos los materiales didácticos previamente para que ella pudiera interactuar con ellos y no estuviera tan fuera de onda
	Course material	en el caso de los materiales son súper visuales, eso si es una cuestión muy grande que estamos… o sea el uso de la visión es enorme dentro de las clases , pero la verdad si me conforme mucho con saber que había alguien
	The book	Es que es muy complicado, es que si tú les pones el libro pues no lo entiendes porque tienes que ver la imagen y entonces describirla requiere muchísimo tiempo
Techniques	***Communicative approach***	Sí, en casi en todas mis clases pongo actividades extras pero sí está como muy punto de referencia el libro.
	Pair and team work	… trato de que hablen y promuevo mucho en ellos el trabajo tanto en pares como en equipos, y eso es algo que también siento que no… más bien … estoy contestando a la inversa porque no funcionó más bien y yo esperaba que funcionara, porque al tener ella la oportunidad de hablar o de interactuar yo esperaba justamente esas respuestas.
	Class work	Curiosamente ella tenía mejores respuestas cuando eran en el grupo completo, cuando hacía yo una pregunta en general , ella era más participativa así, que trabajando en pares o en grupos pequeños y… eso era como muy característico de ella sí le gustaba participar pero así en grande, en corto no , como que con sus compañeros no.
		...lo que sí pensaba era que si les preguntaba algo o hacíamos alguna actividad que si fuera posible para ella realizarla.
		Entonces te digo, no era que pensara en una actividad en particular como para ella sino asegurarme que las actividades que les pidiera a los demás fueran adecuadas para que ella también las pudiera realizar.

Table 3. Categories and subcategories from interview with Teacher 3 with examples		
Category	***Subcategories***	***Examples***
Challenges	***Integration***	Ella es muy difícil. Todos hemos tenido problemas con eso, porque es participativa pero un ratito porque se cansa mucho, yo creo que mentalmente de estar todo el tiempo escuchando, ¿no?
	Inexperience	Adriana la tuvo en el curso pasado y todos los que han pasado por ella se han encontrado con el mismo problema y ¿ahora qué hago? Entonces estaría bien tú en tu tesis podrías poner como sugerencia que a todos los maestros, se me ocurre, nos dieran un cursillo por lo menos de algo básico para ayudar a estas personas, que no es muy común encontrarlas pero sí, a veces es necesario.
	Method	Pues obviamente que tendríamos que tener un pequeño método para enseñarle a ella diferente o que sus compañeros le pudieran ayudar o yo más, de alguna otra manera y también tal vez algún material extra que pudiéramos usar con ella.
	Evaluation	Mira ahorita por ejemplo, en el examen que hicimos en la plataforma, me dijo: "Miss, es que yo no lo puedo hacer" dijo, "pues es que tienes toda la razón" "a no ser que me consiga a alguien que me lea todo y yo le voy diciendo las respuestas". Entonces al final de cuentas terminamos diciendo que mejor ella lo iba a hacer escrito…y tuvo su… bueno, escrito es un decir. También, una chica de servicio fue y se sentó junto a ella y ella ya iba diciéndole las respuestas, en el *reading* y en el *use of English*, pero nos faltó el *listening* que es el más fácil para ella, porque… ¿por qué fue? *¡Ah! Me dijo, porque cierran la plataforma y ya no tiene acceso a los documentos*. Cuando es en la plataforma de Cambridge… ¡no!... porque se les ocurrió arreglarla. De repente hacen eso para mejorarla o quitar errores o cosas así y la cerraron, entonces ya por eso no pudimos hacer el *listening*, pero quedamos en que lo vamos a hacer. Y el *writing* solo que alguien vaya escribiendo lo que ella va diciendo. Sí porque va a ser ahorita, para mí va a ser un poco difícil calificarla.
		... la evaluación es difícil porque no son las mismas circunstancias. Y aparte el *listening* tiene dibujos. Entonces, el *listening* aunque sea, pues ella tiene muy desarrollado el oído. Déjame ver si están por ahí. Sí, ya me imagino…¿qué está sucediendo en esta escena? ¿no? Los poquitos que tengo, aquí están. Estos son los *listening*. La mayoría los hicieron en línea, pero hubo gente que no pudo entrar en línea, déjame ver, ¿este qué es? Este es *writing… wiriting… listening*, ¡mira! Este es un *listening*. ¡Ah! Ya vi las fotitos…Entonces, pues obvio que primero le tienes que describir las fotos para que ella pueda escoger cuál. Aunque ella tiene desarrollado y entiende bien, le tienes que describir las fotos para que pueda escoger. Entonces no es nada fácil.
Strengths	***Participant's strengths***	Las fortalezas, bueno obviamente *listening*, ¿no? Que todo lo escucha y lo entiende perfectamente bien y rápido, entonces por eso a veces ella entiende más rápido que los demás y me contesta rápido. Entonces ella contesta primero que nadie.
		yo creo que su entusiasmo y sus ganas de salir adelante que eso ya es parte de su forma de ser, su carácter.
	Classmates attitude	Mira, como ella es tan abierta y se lleva bien con todos, la respetan mucho, entonces eso, a mí, me da mucho gusto porque cuando ella habla, todos se callan y la escuchan y a veces se tarda en decir las cosas, pero lo dice. Eso a mí me gusta de su grupo que se callan para que ella pueda hablar, la incluyen siempre. Sí, sí uno no le ayuda, y si no llega su amiga otra le ayuda a bajar, a subir, o cosas así.
	Willingness	Sé que tiene una amiga, entonces la siguiente pregunta es ¿Hay alguien que te apoye en tu clase? Sandra, Sandra Stephany… ¿o cómo se llama?
		De la clase no, a menos que yo se los pida…pero yo veo cuando sale, que habla con miles de gentes, y muchos chicos, chicas la ayudan a bajar, la ayudan a subir, van platicando con ella y la ayudan, la llevan a la oficina, pero en la clase la que más es ella. Como que ya saben que es ella y si no llega a ir, entonces la otra chica o algún otro o yo les digo a alguien por favor no la acompañan o cosas así, y todos están dispuestos.
Materials	***Material Shortage***	Pero en cuanto a material sí es muy difícil.
		Hace tiempo, bueno hace un semestre precisamente di un curso de, tenemos cursos de materiales y yo lo di. Y tenemos clásicos y también tenemos modernos por Internet. Y se me ocurrió hacer materiales para gente que no ve, ella, fíjate, los chicos fueron y le preguntaron si estaba bien o no. Entonces me hicieron *flashcards* con Braille, otros con materiales para que ella pudiera sentir, ¿okay? Pero cosas muy sencillas como *shapes* and *colors*, bueno colores no pero, *shapes* sí, ¿okay? Y sobre todo los *flashcards* de verbos, por ejemplo y le ponían con Braille con una agujita lo iban haciendo y en una orillita tenía. Yo siempre hago una exposición cuando terminamos el curso para que vayan a verlo los maestros porque los hago que hagan una bola de cosas. Y ella fue, como la invitada especial, para ver si realmente estaban bien hechos. Y ella los estuvo checando y todo, algunos, bueno la mayoría todos estaban bien. Alguno que otro decían, "no, este no le entiendo", pero ella lo estuvo checando. Y eso está muy bien pero es muy básico, porque *colors*, *shapes*, y en el Braille, son *flashcards* de verbos sencillos, pero ella ya está en tercero.
		Pero como te digo en lo básico es más fácil pero ya en algo más elaborado, ya es más difícil.
Techniques	***The book***	Ella tiene parte del libro en Braille y se lo hicieron aquí en la BUAP, pero por ejemplo, cuando tú viniste a la clase esa no lo tenía, pero ahorita en esta unidad ya la tiene y entonces ya ella va leyendo y yo nada más ayudo un poquito con lo de las fotos y con sus compañeros.
	Communicati-ve approach	Para ella…bueno, obvio, todas las de *listening*, pero también las de *speaking*, porque siempre tiene una opinión también.
	Class work	Yo trato de que todo lo leo para toda la clase o lo leen ellos, un pedacito cada quién para que ella esté escuchando y vaya captando lo que estamos haciendo. Es más, le describo si hay fotografías; por ejemplo, para que sepa de qué se trata el asunto, en ese caso. Luego cuando hago preguntas así, abiertas, que ella ya sabe, ella contesta y sí participa, a veces más que los demás, que es bueno.