How to teach basic vocabulary to children with visual handicap

Nathalia Paola Goyes Benavides

Advisor: Helda Alicia Hidalgo Dávila Ph.D.

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**NOTA DE RESPONSABILIDAD**

Las ideas aportadas en este Proyecto de Trabajo de Grado, son de responsabilidad exclusiva

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**Nota de Aceptación**

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*Infinite thanks to God for allowing me to reach this achievement, for giving me tenacity, that sometimes was scarce and wisdom and for all that I have around me. It is for me an honor and an act of gratitude to dedicate this work to my mom and my uncle for their incessant support despite adversity. To my granny and aunt for their blessings from heaven. I appreciate the sincere hearts for the support, for a word of encouragement in need. To my teachers, for their teachings, without them none of this would have been possible.*

## Resumen

Este documento de investigación contiene información sobre cómo los profesores podemos contribuir a mejorar la enseñanza del idioma inglés a niños con discapacidad visual. Además, este escrito presenta ideas importantes acerca del punto de vista de diferentes autores en relación con el tema. Al mismo tiempo, ideas relacionadas con la enseñanza de una lengua extranjera son descritas teniendo en cuenta la condición de niños ciegos lo cual puede llegar a ser un gran reto.

## Abstract

This research paper contains information about how teachers can contribute to improve the teaching of English language to children with visual handicap. Moreover, this document present important ideas about the point of view of some authors in relation to the topic. At the same time, ideas related to teaching a foreign language are described taking into account the condition of blind children which may become a huge challenge.

**Table of Contents**

**INTRODUCTION**

This paper has one main purpose which is to know what could be a suitable way to teach basic vocabulary in English to children with a visual handicap. This subject may be interesting since the English teaching is closely related to visual material used in classrooms where normal or regular students learn.

Specifically, the idea of this research is to know how teachers can make students with visual handicap learn basic vocabulary at the level of a set of a few words. While, this would be a great achievement if we remember that for people with this type of disability it is very hard to learn through sight; therefore, it would be interesting to design some activities or materials that can contribute to the teaching- learning process. Hence, an additional proposal to this paper is the adaptation of some activities to make this possible, which requires an adaptation to the needs of the blind people in this case, children.

This research paper besides being interesting is innovative since it seeks to provide a way to teach something new to someone for whom this task can become a hard work, contributing to the integration of a blind child to a normal school atmosphere and a society in the future.

**JUSTIFICATION**

The development of this research tends to be innovative in the setting of teaching vocabulary for FLL (Foreign Language Learning). Also, in this study there will be a very useful amount of information related to the topic to work on. In other words, the reason why this topic was chosen is aimed at adapting some activities to

teach basic vocabulary to children with visual handicap. This paper has as a main intention to propose some activities to teach basic vocabulary, a set of few basic words or simple sentences to blind children. It may be through some tools to facilitate learning in this specific community and promote work to develop all skills for them.

This work also has a main motivation to be developed and it is related to the interest on the English teaching that can facilitate the second language learning process in this specific population. The above-mentioned aspects intend to identify the way how blind children can learn. This research paper also intends to guide English teachers towards integration through participation in the school setting of these special students as an incentive to encourage students' self-esteem and thus their learning.

## Literature Review

This section includes all the necessary information to comprehend what we are talking about. It contains important contributions done by authors who are specialized in the scope of vocabulary learning by blind students. This paper starts defining the different kinds of blindness and the stress or difficulties it can cause when a student learns.

## The Visual Handicap

As stated by Gibson (1979) cited by Ruiz and Reina (2012), "Perception is a dynamic process by which we obtain first- hand information about our immediate environment through the use and integration of sensory or functional receptors",

(Ruiz, D & Reina, R., 2012: 65), these sensory receptors are in operation with our senses giving us permanent information of the world around us which is useful in all different processes in a person's learning.

When these sensory receptors do not work adequately, there is probably a visual barrier concerning visual impairment which is defined by Toro (1994) cited by Ruiz, D & Reina, R., 2012 as any visual loss in a person with degrees, that is to say, it can be total or partial, but in general terms, blindness represents a total loss of vision, it means that perception and projection of light levels is null (Ruiz, D & Reina, R., 2012). It is necessary to know that blindness or visual impairment is a general term due to its classification. Some definitions and classifications about this term must be taken into account in order to complement its meaning.

Different authors cited by Ruiz, D & Reina, R., 2012 such as Bueno & Ruiz, (1994); Bueno, Espejo, Rodriguez & Toro, (1999); Pelechado et al., Toro & Zarco (1998) make a brief definition of the concept of visual impairment, which relates primarily to medical aspects and not issues on the functionality of the person with this type of problem and the required degree of educability. That definition covers topics directly related to diseases and disorders of the eye and its elements, for example: the cornea, retina, lens, and the optic nerve among others (Ruiz, D & Reina, R., 2012).

Although this information is not the main focus of this paper, it is necessary to make a brief and general description of the subject with reference to the different

conditions of the eye.  In the matter of functional- educational criteria there is an
important contribution made by Delfour (nd)

**Definition of Blindness**

Conforming to WHO (World Health Organization)

"Blindness is the inability to see. The leading causes of chronic blindness
include cataract, glaucoma, age-related macular degeneration, corneal opacities,
diabetic retinopathy, trachoma, and eye conditions in children (e.g. caused by
vitamin A deficiency). Age-related blindness is increasing throughout the world, as
is blindness due to uncontrolled diabetes. On the other hand, blindness caused by
infection is decreasing, as a result of public health action. Three-quarters of all
blindness can be prevented or treated". WHO (World Health Organization, 2015).
(n.p)

In this manner, Delfour cited by Picq & Vayer (1977) in the book titled
"*Actividades físicas y deportes adaptados para personas con discapacidad*" (Ruiz,
D & Reina, R., 2012) emphasizes principally four categories to complete that
definition:

a. **"Little Affectation:** Visual acuity is situated between 5/10 and 3/10. For
people or students in this category special education is not necessary". (p.73)

b. **"Most Affectation:** Visual acuity is situated between 3/10 and 1/20. For
people or students in this category, it is required special and sensory education**".**
(p.73)

c. **"Severe Affectation and threat of blindness:** Visual acuity is situated between 1/20 and 1/50. Here the visual acuity is at its limit, and demanding special education". (p. 73)

d. **"Total Blindness:** This phase meets all visual deficiencies. There is a dependence of non-visual stimuli. Moreover, for people or students in this category, special education and support is required in a complete way". (p. 73) (Ruiz, D & Reina, R., 2012).

Simultaneously, Herren & Guillemet (1982) cited by Ruiz and Reina (2012) associate each of the above categories with their corresponding levels of competition, as follows:

a. **"Total Blind:** When the absence or visual light perception is absolute". (p.73)

b. **"Partially Blind:** There is a residual vision that allows visual guidance in light and mass detection which facilitates the movement and comprehension of the outside world. Near vision is not enough to develop an educational and professional environment". (p.73)

c. **"Deep Amblyopic:** Colors are well perceived. Near vision admit both reading and writing in black". (p.74)

d. **"Amblyopic itself:** Near vision admits also a schooling in black using special methods". (p.74) (Ruiz, D & Reina, R., 2012).

**Definition of Visual Impairment**

This section contains information about important issues which will be developed all the way through, being visual impairment one of them, more than blindness as such. Also, some strategies, recommendations and reflections are described as to contribute to the improvement of students with visual handicap performance, on the topic of teaching basic vocabulary in English. Important contributions about this issue will be found later.

In consonance with The Royal Institute for Deaf and Blind Children (RIDBC) (2014) (np) visual impairment is defined as a limitation of one or more functions of the eye (or visual system). The most common vision impairments affect the sharpness or clarity of vision, (visual acuity), the normal range of what you can see (visual fields) and color. These parameters are based on the range of a normal vision which is 6/6 vision (or 20/20 in imperial measures).

Concurrently, visual impairment is any disorder in vision that a person has, which does not allow gathering a good perception of external stimuli around, hindering any process either educational or professional of an individual. Moreover, difficulties like those above can obstruct the ideal integration process that is aimed at covering all educational needs to provide students a fruitful learning. Another contribution to complement this definition is made by Elsevier one of the largest publisher of medical books and scientific literature in the world, with its journal "Procedia".

In agreement with Procedia- Social and Behavioral Sciences, in sociological and psychological terms visual impairment is defined as:

"Visual impairment can cause declining of social and cognitive improvement since childhood. In addition, this impairment can complicate acquisition of learning ability and improvement of personal talents resulting from affecting personal activities. When private needs of disabled persons are not provided, then improvement of the other abilities can be problematical (Bailey, B.R., Wning, 1994).Visual impairment makes it difficult to improve of basic relation ability between persons, and affects social using of language (for instance, starting relations, communications, or understanding others)". (Gurdal, A., 2012, p. 5569).

From this point of view, it would be necessary to state that this condition must be addressed correctly in order to get an integration process of people with this type of disability in education, given that there are also some cognitive abnormalities associated with delay in learning because of the lack of stimulation since there is not an imitative discovery by impaired people (Ruiz, D & Reina, R., 2012).

Notwithstanding the existence of these limitations, the use of some strategies can make easy the impaired students' performance in matter of arts, language, reading and mathematics. In the case of a student with visual impairment in the field of arts, it may be valuable allowing the drawing tasks using materials like clay or sand so that the student learns to handle the two- dimensional plane, as well as,

promoting the use of practical materials to achieve the goals. (Cardona, A.,

Arambula, L., Vallarta, G., 2005).

### Blindness and Language

These two words are not as simple as they seem, because they have a narrow

relationship, if we take into account the process that a blind or visual impaired

person has to follow to develop any competence regarding language. Having a

visual impairment may represent a difficulty in several fields mainly in

development. That is to say, a visual impairment has an impact on physical,

cognitive, social and language development and it is necessary to understand what is

happening.  Thereupon, a brief description will be made about the impact of visual

impairment on development taking into account important aspects in an individual

formation.

In accordance with Strickling (n.d) "For the infant born without sight, the

other senses have intermittent input and may appear diminished. The child receives

inconsistent, discrete, and generally unverified fragments of information", this is

linked to sensory development, which is affected by the lack of reception or quality

of the external stimuli. Therefore, it is important to provide enough input for these

students.

Concerning language development, Willings (n.d) makes reference to the

help that vision receives from it to obtain information about nonverbal

communication and also it helps to provide meaning to language. In the same way,

the author says that providing hands-on experiences with real labeled objects may be useful for students with visual impairments to fulfill their needs.

The same author, in this part reasserts that: "to encourage the student to develop language, it is important for the student to be exposed to good language models in an active learning environment", and some strategies are recommended to develop the language skills:

- Practice turn taking, to give the opportunity for students to express their opinions.

- Teach through units that help students understand topics and integrate skills.

- Provide students choices within the activities, if they make mistakes they have the chance to correct and learn from them.

- Embed language into all the student's experiences, to engage them with the sense they are learning, and in the same way, it is also important to accentuate that allowing different ways of participation may help students to learn better.

In respect to language development, it is necessary to talk about some possible problems that learners with visual impairments may have, the most common are verbalism and echolalia. Verbalism is to talk about what is around without understanding its meaning, due to the lack of direct experiences gotten from the environment. Also, it is considered as an ability to talk about any matter without having understood about it.

To counteract this problem it is recommendable to provide students hands-on experiences in order to let students build concepts and relate to real objects.

Another common problem in this kind of community is Echolalia, that is when they "learn to talk by echoing or copying phrases or sentences even if they do not understand it" Willings (n.d). They tend to repeat what they have heard. It may be associated to a specific event.

As a result, in a few words, it is possible to say that between blindness and language a logical relationship exists, if we take into account that language may develop through experience.  That is to say, in words of  Bishop and Mogford (1988), language goes hand in hand with experience to build knowledge, language and philosophy have an interesting issue in common experience, since it is an essential element before learning.

Concepts, thoughts and ideas are principally visual, in case of blind or visual impaired people these cannot be seen, therefore, in this way language would not make sense, taking into account that a blind or visual impaired person has a different form to get experience from the surrounding world.

In addition to the above, blindness may be a potential problem in language development if we take into consideration that due to the absence of  vision that do not allow learners to see the lips articulating the sound system, learning can  be hinder. If we bear in mind that nonverbal interaction works with visually basic actions like gestures which promote language development.

As regards language, some statements have been raised about it that promotes the construction and use of parts of speech and / or grammatical categories, in order to build a structured and practical language (Nouns, verbs, pronouns, adjectives, adverbs, prepositions); and foster the adequate usage of forms of speech like description, narration, dialogue and argumentation (Cardona, A., Arambula, L., Vallarta, G., 2005) (p.37).

In the part of vocabulary, there are some strategies that offer some positive recommendations such as:

1. To encourage the development of vocabulary, it would be recommended that teachers and parents and even partners read for impaired children.

2. To allow group work (couples or more) develops storytelling for fostering interaction and induce the child to search interesting topics for him/her in audiobooks and in this way increase the vocabulary of children. (Cardona, A., Arambula, L., Vallarta, G., 2005).

**Language Acquisition in Blind Children**

This segment offers relevant information about Language Acquisition. In the first instance, this issue is discussed considering the particularities of this community (blind or visual impaired), starting with information related to the language development of blind children.

It is necessary to make a contrast on second language acquisition both in sighted children and blind children. In general terms, Second language acquisition

refers to "the field that studies language(s) that you learned after acquiring your mother tongue, including third and fourth languages."("Who studies Language Acquisition?" n.d).

Second Language Acquisition is defined by The American Speech-Language-Hearing Association (ASHA) as:

"Learning a second language after a first language is already established. Many  times this happens when a child who speaks a language other than English goes to school for the first time. Children have an easier time learning a second language, but anyone can do it at any age. It takes a lot of practice!"  (n.p)

Based on this definition, it is possible to state that it is a process that follows a first one. This process takes place in the person's brain and its development depends on the learner's attitude and environment.

In addition to this, there is also an influence of social interaction and sociocultural theories which support the important contribution of Vygotsky, when he refers to the role that the social environment has on children's language learning. At the same time, he institutes that primarily everything is learned socially or in other words, from others (Malone, S., 2012).  A rich environment may provide a greater number of resources to learn and acquire many useful elements to construct a good language learning or acquisition process.

To clarify the previous concepts, we have the following statement: "Acquisition requires meaningful interaction in the target language - natural communication - in which speakers are concerned not with the form of their

utterances but with the messages they are conveying and understanding." (Schütz, 2014) In this manner, it is true that the purpose of communication is conveying our expressions, needs and opinions in order to get a meaningful understanding, then, to acquire a second language, it is necessary to interact with the target language in a natural way, in which speaker's intention is transmitting a message more than the way or the steps that he/ she takes.

Talking about SLA in children with visual impairment it allows discuss an essential aspect in which language is the most important tool to communicate with others. In accordance with, Muñoz, (2004) "Underlying language development is the ability to think about the world, and explore it with vision, hearing, smell, touch, etc." (n.p) From this statement, it is noted that our senses have a significant role in life, as, with their support we can learn and guide, but the most important thing to know what we have around.

Similarly, the development of language through exploration is supported entirely by our senses to understand the surrounding world. This development in this kind of community (blind or visual impaired people) can be affected by factors such as: the cause of the visual impairment or its level of complexity and issues about motor and cognitive skills. Consequently, we can say that all possible needs of this type of children may be supplemented by the use of their other senses, different skills and practical experiences that allow to learn the meaning of words or simple sentences. (Muñoz, M., 2004).

It is evident that children with visual impairment have several difficulties when learning a second language. The difference between learning a first language from a second, lies in the way how these are learned. Also, these children with this type of disability learn a second language in a gradual manner as in the first one in a process that may take several years. As stated above, in a context of practical and meaningful  experiences, the other senses play an important role which is to support the lack of information that is restricted and reduced by the state of having an impairment (Muñoz, M., 2004).

Bearing in mind that teaching a second language is a visual process, some recommendations for teachers arise to promote second language learning in classrooms for blind children. Some of them are:

1. As much as possible, teachers should teach children by the use of practical activities that involve the other senses. In that way children may learn from the experience getting good results in terms of vocabulary.

2. It is important the use of a mother tongue to contribute to the understanding of the second language in specific skills.

3. It is advisable to make a contrast between the relationship that exists in what the teacher is teaching and the common experiences that children have.

4. It is important to review the children's work, progress and participation, so that teachers can know their progress.

5. It is essential to ask questions to confirm the comprehension about worked topics and make sure that visual information is understood in a correct way.

These recommendations may be useful for increasing children's motivation and confidence to develop tasks in the classroom, because with the teacher's support children may feel competent and able to reach the goals. Guidance is significant to avoid and correct possible mistakes made by them, in this way, they may learn and realize from mistakes and success. In general terms, motivation is something like energy that directs and holds behavior; it allows students moving continuously (Ormrod, 2014). From this, we can add that is the encouraging force to do something, it is related to the interest and enthusiasm to develop what a person proposes.

Furthermore, Fredricks, Blumenfeld, & Paris, (2004); Maehr & Meyer, (2004); Reeve, (2006), cited by the previous author, make reference to the concept of motivation as: "We often see students' motivation reflected in personal investment and in cognitive, emotional, and behavioral engagement in school activities." (Ormrod, J.E., 2014). The effort that children may apply doing different activities can be associated to their attitudes, the willingness to learn, and the resources in the environment and guidance in the classroom.

Additionally, some possible difficulties teachers and children may have in the classroom talking about second language acquisition in blind people. In consonance with Aikin, H in her Doctoral Thesis and citing (Cummins1984). Maybe, there is not enough information about this topic because a model of learning

has been standardized or categorized as only one. In other words, it is assumed that children with visual impairment learn in the same way as sighted ones, if there is a sufficient competence in the mother tongue, the second language, including its abilities, may be learned effectively.

On the other hand, Guinan (1997) cited by Aikin (2002), establishes that there is an insistence on developing additional work about this topic, since, it is very difficult to explain or demonstrate that blind children learn another language in the same way as sighted. Reconsidering the idea of SLA in visual impaired children, there is a variety of articles talking about this issue. It is in 1960 when the Office of National Rehabilitation of the United States starts to help this community regarding languages training in support of the Institute of Linguistics and Languages of the Georgetown University. There, those learners were separated to receive instruction and be exposed to the target language for several hours per week, using an aural-oral method, with this type of exposure, learners could become familiar with sounds before grammar.

Guinan (n.d) cited by Aikin, believes that it is convenient to have specialized and competent teachers in the scope of EFL and education focused on visually impaired children. Within a conventional setting it may be complicated because sometimes teachers face different situations, in which there are different disabilities or needs and it would be difficult to fulfill each one of them, due to lack of time, resources and academic formation, restricting to focus on only one situation from a student or a group of students. Therefore, it would be recommendable to classify

learners, their needs, their disadvantages and their interests to achieve a learning goal.

**How to teach basic vocabulary to children with visual handicap**

Vocabulary is the most important element in a language or in speech not only to understand what it is possible to hear or to read but also to communicate successfully in a society. In the same way, the number of words a person has is not as important as the use made of them That is to say, the more a person reads better amount of words the person can collect which can be used in a real significant speech.

**Didactic Proposal**

The most important point in this section is the recommendation of BALABOLKA. But, what is it? This is a software TTS (Text- To- Speech) which reads a text on your computer or any other gadget. This is a program that has a set of installed voices on your computer which will be available for Balabolka and it can read any file. Its operation is to enter the material (nouns, adjectives, numbers, colors, verb TO BE, some prepositions and days of the week) which will be converted to audio with this software. This may facilitate the learning process because today people with visual handicap are more familiar with those voices, taking into account that gadgets, computers and other devices are available for this kind of people. Another option is to record an audio file with a human voice, it is the same teacher or another person who gives the learner more confidence about pronunciation.

There are several programs like this that have the same purpose. Like Balabolka, there are some other proposed by "Ministerio de Tecnologías de la Información y las Comunicaciones" (MINTIC) (2013), they are "JAWS" (screen-reader-software) and "MAGIC" (magnification software). It is a screen-reader software which is available to anyone who has a visual impairment and need it. It is easy to access, because it may be downloaded freely. Next, we have further information about what it is. According to MINTIC (2013):

- What is a screen reader software? It is a type of software that, by means of speech synthesis, turn on sound the  information of operating systems and applications, enabling blind or visually impaired persons the use and appropriation of information technologies and communications.

- With which applications does the screen reader software work? The software works with the most used applications we have currently, which are Microsoft Word, Microsoft Excel and PowerPoint, also with PDF documents and video or audio player such as Windows Media Player.

- How can run the download? From any search website. The download is carried out by a person with visual disability through an assistant either a teacher or a family member and it can be done individually or in a group. There is no cost, it is free and simply it is necessary to have a computer with internet connection. (Appendix A)

- Properties of Balabolka:

- The execution of the program is simple, teacher writes what he/she is going to teach. Balabolka gives options of reading like speed, tone and volume. (Appendix B)

- It also facilitates reading process with an abbreviate method to run reading which is through F5. (Appendix C)

- This software has thirty languages to exchange according to the learner's needs. (Appendix D)

- It has a complete dictionary which corrects pronunciation and gives the word's stress. (Appendix E)

- It permits work from a small number of words to an extensive text or document.

- With it, it is possible to read the clipboard content, even when the same program is running. ( Appendix F)

- Balabolka allow to save the files in different formats, being the most common and accessible (*.txt) and also this program offers the option to convert a text file to audio (WAV), in order to be played. ( Appendix G)

**Conclusions**

In suggesting this software, it is expected that teaching a second language be more attractive, more accessible and available to those who need it. Taking into account the new policies that government has, the use of these programs should be more than optional, since educational inclusion requires it. In our hands is to contribute to the improvement of a little part of education for certain groups of people, in this case, people with a visual impairment who need different ways to learn.

Consequently, teachers should take advantage of technological resources that are in the current educational setting. That is why in this paper a software TTS (Text- To- Speech) is recommended, in order to help and facilitate learning to this kind of people (visual impaired). As time passes, there are different alternatives to make the educational process more fruitful and with this type of software it may be possible to contribute to teach in a different way.

To complete the above mentioned, it is necessary to take up what "El Plan Decenal y la inclusión de población con discapacidad" belonging to the "Ministerio de Educación Nacional" describes:

"el sistema educativo debe garantizar a niñas, niños, jóvenes y adultos, el respeto a la diversidad de su etnia, género, opción sexual, discapacidad, excepcionalidad, edad, credo, desplazamiento, reclusión, reinserción o desvinculación social, y generar condiciones de atención especial a las poblaciones que lo  requieran".(MEN, Altablero No. 43, septiembre-diciembre 2007)

Given these points, English learning process may have a big advantage if a student is in a constant contact with the language, being media, games and readings which constitute a suitable way to facilitate English language learning, if we were talking about sighted children. But, talking about blind children it may become a real problem or a challenge.

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## Appendices

Appendix A:

Download



Appendix B:

Execution



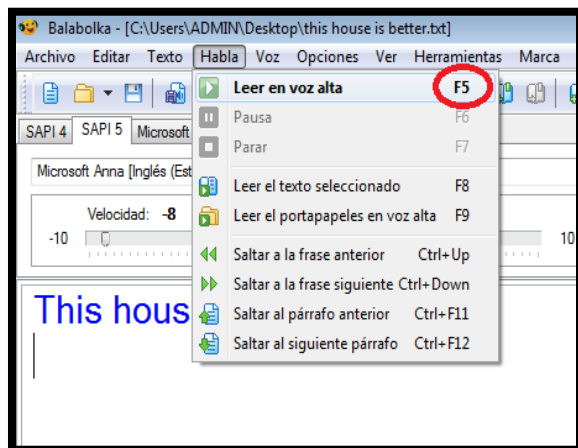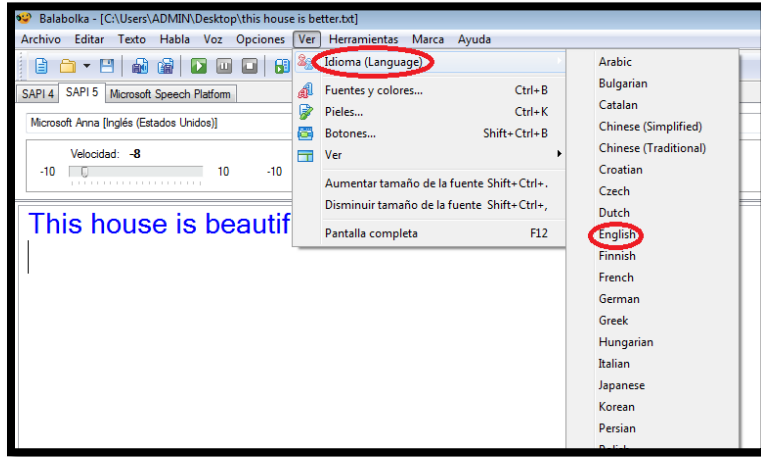Appendix C: Abbreviation

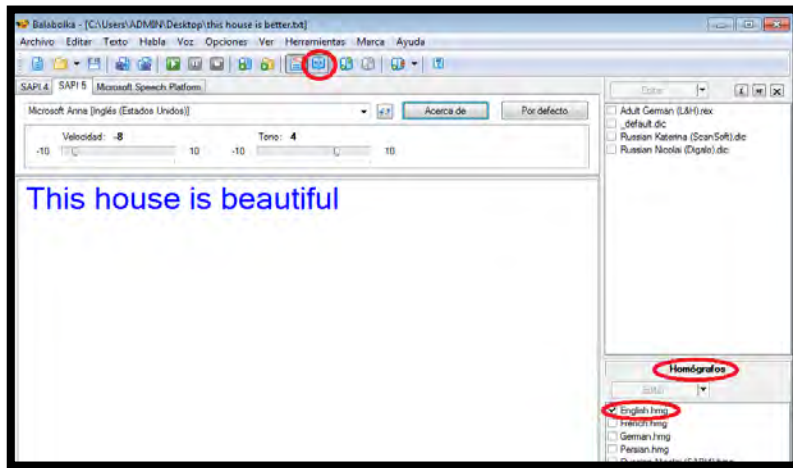by                                                                                                         using F5
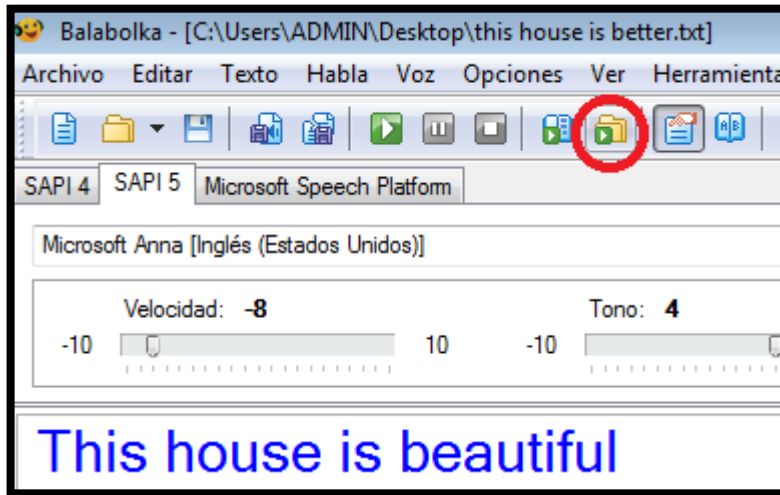
Appendix D:  Languages



Appendix E: Dictionary

Appendix F: Clipboard Content Reading

Appendix G: Saving Files