

Sign Language, Written Language, Hearing Parents and Books: Together For the Good of Deaf Children Cognitive and Emotional Development

Mariana da Cunha Teixeira de Souza¹, Edilene de Melo Teixeira², Erika Winagraski^{3, 4} and Helena Carla Castro^{1,2, 4*}

¹Curso de Mestrado em Diversidade e Inclusão, Instituto de Biologia, UFF, Brazil,

²Programa de Pós-graduação em Ciências e Biotecnologia, Instituto de Biologia, UFF, Brazil

³Programa de Pós-graduação em Ensino de Biociências e Saúde, Fiocruz, Brazil

Correspondence address: Helena Carla Castro, hcastrorangel@yahoo.com.br, Curso de Mestrado em Diversidade e Inclusão, Instituto de Biologia, UFF, Brazil,

Citation: Mariana da Cunha Teixeira de Souza, Edilene de Melo Teixeira, Erika Winagraski and Helena Carla Castro (2016) Sign Language, Written Language, Hearing Parents and Books: Together For the Good of Deaf Children Cognitive and Emotional Development. Arts Lit Linguist 2: 005.

Copyright: © 2016 Mariana da Cunha Teixeira de Souza, et al. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted Access, usage, distribution, and reproduction in any medium, provided the original author and source are credited.

Abstract

According to the literature, most parents of deaf children are hearing people that do not know Sign Language and/or are oriented not using it with their children by doctors and/or acquaintances. Several people believe that the use of sign language by deaf children will lead to speech limitation, so most parents have lip reading or homemade signs as the main form of communication with their young child. This may lead to cognitive, emotional and/or learning problems in the future life of these children. Currently, children's literature does not help in bringing these parents, sons and daughters together due to the lack of a bilingual approach since their early age. Despite some interactive books already exist in some languages (e.g. English and American Sign Language - ASL), most of them are not for using in the early childhood and/or in the company of the hearing parents. These books can help to reduce family language barriers also providing a quality time for families composed of hearing parents and deaf children. In this article we discuss these topics also reminding the importance of the sign language, the hearing parents participation and the production of bilingual didactic material for the childhood of the deaf community.

Keywords: Bilingualism; Children; Deafness; Childhood; Communication.

1. Introduction

Currently, the lack of knowledge about deafness and the deaf child cognitive skills by those who teach these

people in most of the educational institutions around the world is still a huge problem for teaching this public. For some people, the sign language is only a set of gestures or mime, linguistically less rich than the oral languages [1-4].

Mistakenly, most hearing people, including teachers, believe that the sign language is the same for all deaf people around the world, when in fact, sign languages are directly linked to the cultures that originated them, similarly to the oral languages. Sign languages also differ from country to country and are subject to all kinds of variations, including from the social groups that use them [5].

In order to understand the linguistic differences between sign languages and oral languages, it is necessary to analyze their unique characteristics. For example, comparing the Brazilian Sign Language (Libras) with Brazilian oral language (Portuguese), we noticed that the Libras is a younger language different from Portuguese from the origin to the grammatical structure (Table 1). In addition, similar to

other sign languages, Libras is a visual language, whereas the Portuguese is taught based on the auditory system, which can not be used for teaching deaf students. This public requires other strategies based on visual didactic strategies and material, exploring the their sight.

Currently, there is little or no literature available about deafness and the teaching and learning process since birth, especially involving parenthood of this child by a hearing family. Therefore, in this article we briefly discuss some important issues regarding deaf teaching and learning process and their interaction with parents and schools, particularly considering the sign language as an important instrument to achieve their full cognitive understanding [6].

Table 1: Comparison of Brazilian oral (Portuguese) and sign (LIBRAS) Languages.

Characteristics	LANGUAGE	
	Oral Language	Sign Language
Legalization in Brazil	August 17, 1758	April 24, 2002
Origin	Rome (Galician-Portuguese)	France
Modality	Oral-auditory	Visual-gestural
Official in:	Brazil, Angola, Green Cape, Guinea-Bissau, Equatorial Guinea, Mozambique, Portugal, San Tome and Principe, East Timor.	Brazil
First Language (L1) to:	Brazilian Listeners	Deaf Community
Grammar 1	Nouns, articles, pronouns, verbs and adjectives flex.	Nouns, pronouns and verbs flex only in number (in some cases they only).
Grammar 2	Use articles, prepositions and conjunctions.	Articles are not used in sign language; some prepositions take place within the signal only and conjunctions are rare.
Grammar 3	Verbs: transitive, intransitive, impersonal.	Verbs with or without agreement
Phrase Structure	SOV or SVO (Subject + Object + Verb or Subject + Verb + Object)	Topic phrasal

2. Beginning from the Very Beginning

The acquisition of sign language by the deaf is a constitutional right in some countries such as Brazil, which allows them to have an instrument for communication and go out from an isolated life to get into a life in society. However, until recently deafness was considered a disease that hugely compromised the intellect of all affected by it [5,7].

According to some authors [5,8], the language is the main *tool* to interact with the world and has the special ability to make us think while we use it with another human being. It leads us to understand our own thoughts as much as those of others who interact with us. Most deaf children will grow with the oral language as their first language worldwide, learning to write and in some cases also to verbalize, often with great difficulty. This procedure is known as oralization and goes from the childhood to adulthood. It cannot guarantee proficiency in oral language [9] that, different from the Sign Language, requires an unnatural process from the deaf child that has to find means of acquisition incompatible with their own physical nature.

Rachel in 2007 investigated the acquisition of L1 and L2 and show that the age of acquisition L1 is a decisive factor for the success of both. The acquisition in a natural way for deaf people should involve learning and abstracting signs using the visual system. This linguistic strategy may allow a similar experience to that of the hearing people with their oral languages. The learning of Sign Language is important to deafs both for their social and individual lives. By communicating through signs, deafs have full access to the knowledge and information, whereas they may express themselves naturally, formulating ideas, building concepts and becoming the owner of their own life and decisions[6].

According to Fiorin [11], the language is developed historically and, once established, requires the *speakers* to organize e develop pit in their social world. When teaching a language, we cannot ignore the cultural aspects in which it is inserted. In fact, there is no language without culture, being at the same time a social product and a set of necessary conventions adopted by a social group to communicate [12]. Therefore, the educational institutions that intend to properly teach deaf students should offer their language and take into account the empirical knowledge of the deaf, either social and linguistic. This must be done from an very early age, considering this child as a part of a linguistic and cultural community. Deaf students require a linguistic environment in which it is necessary to ensure a bilingual education that meets their unique requirements to allow learning, providing means to reach it [6,11] also reports that what matters in the language is its *stored memory*, because language is the condensation of a people's history, the influences it suffered,

the expectations, prejudices, accomplishments, and literature.

Teaching language to a deaf child has to consider their experiences brought by the language use as well as the beliefs and customs, which constitute a particular way of life of the deaf community. Therefore, there is no way to separate these two realities in the classroom during teaching these public. Within this perspective, the parents and teacher must know and understand the sign language as well as the deaf culture and identity that are intrinsically linked with it. They should give full access to the deaf children in their first years [4], since their personality is built daily, whereas culture, identity and language are transformed continuously. Teaching the sign language as the first language for the deaf child means early identifying the feasibility of different achievements through presenting their cultural identity [4,13,14].

Most deaf people have hearing parents, thus the oral language interferes singularly in their learning within their family and school/academic environments. Different from the hearing children, deaf do not have easy language learning very early within the family, nor the vocabulary is rapidly enriched by individual and family experiences. They are alone in a silent world surrounded by non-structured mimic and simple signs coming from the hearing family [1-4,6].

As the human being presents an essentially social behavior, the deafs should be able to use their entire body to communicate. Therefore, the bilingual education opens up a space for the deaf reveals that being deaf does not make them lazy, dumb, retarded or aphasic. Unlike the hearing kids, the deaf live in two different worlds when considering all linguistic and cultural aspects. Some deaf kids have the opportunity to communicate with their families through sign language, either because their parents are deaf or interested in learning the Sign Language to communicate with them. However, there is a linguistic universe marked by sound and written language inside and outside their home (e.g. music, horns, posters, bills). This is their reality that they have to catch up in a daily basis, battling through little communication [6].

Like any other citizen, the deaf have not only civil rights but also civil duties, taxes to pay and social obligations that can be accessed primarily and sometimes exclusively through the oral language in its written format. Therefore, the inefficiency and/or inability of using the official country language in the written format may compromise deaf people access to their rights and/or the fulfillment of their duties. This inability may generate huge barriers, not only cultural, but also socially as they do not fully comprehend their rights and duties within their own society [15].

On that perspective, the importance of the school increases to the deaf community inclusion. Many schools that attend deaf, mistakenly adopt didactic approaches used to hearing students, such as:

- a) the use of written materials with no linguistic support in sign Language;
- b) the use of oral language as the first language of the deaf;
- c) the strictly use of the same evaluation system for both hearing and deaf students. Generally the deaf reading ability is not as proficient as the hearing people, since their reading fluency depends on a visual approach that is frequently ignored by most of the teachers [16].

Importantly, when deaf are included in schools for hearing people, the difficulties faced are not limited to the context of their own classroom and friends, but also to the laboratories, secretariat, and directory of the school. Their interaction in the school is greatly restricted by the lack of interpreters and also for its restricted ability with the written language. Therefore, even with the recognition of the sign language as the language of the deaf community, the school should not neglect the role of the oral language in its written form for this audience. The professionals should be encouraged to learn how to communicate in sign language, also stimulating reading by deaf students and allowing them to develop self-sufficiency.

All school discipline such as biology, chemistry and physics depend on the understanding of the oral language in its written form. Thus, teachers need to consider this reality for all students, especially for the deaf. They should remember that the oral Language is the organizer and a mediation instrument for the access and development of the deaf student in other areas of the scholar curriculum. Therefore, the teaching of the country oral Language in its written form should be considered as one the most important goals to be achieved to include deaf in the society, as it allows them the access to the information and knowledge about their rights, duties, health, technology, among others.

According to some Brazilian authors the teaching of the oral language in its written form for the deaf community in Brazil has not fulfilled all the requirements for a successful acquisition [7]. Some issues are still present such as:

- a) The oral language is used as the first language, including at home;
- b) Education mediated only by using the oral language without sign language;
- c) The use of educational materials produced for hearing people;
- d) Classroom strategies and methodologies aimed at hearing students.
- e) Lack of appropriate training for teachers that do not use and or know sign language, which compromise the relationship with the deaf student.

It is important to consider that the didactic strategies used with deaf students need to promote a productive interaction and participation in the classroom, without restricting their access to the discipline's content. According to Souza and contributors [5], even when extensively exposed to the information through oral language, deaf children have little or no understanding of it, because it is an incompatible mode with their sensory capacity. However, when it is presented in sign language and worked in a written form, it becomes accessible to the understanding and learning of the deaf.

3. The Importance of Learning Sign Language by the Parents

It is important to recognize that the first human linguistic experience usually happens indoors. All language need to be shared by the users who have the need to communicate, to know themselves and the others and to be an active participant in their own life. Hearing children begin to select their vocabulary and put into practice early on with their parents [17]. Through the act of speech they go from a passive behavior to actively show their own will. The same happens when the child is deaf and has access to the sign language [6].

Flaherty [18] points out that hearing parents face several challenges to be faced in the decisions that must be taken with regard to their deaf children, including what language the child should acquire. Once the hearing parents are told that their child is deaf, they are taken to doctors that target only the lack of hearing, without observing the linguistic condition of the child.

The medical point of view about deafness do not focus on child's linguistic reality, which create risks when the deaf children do not have early contact with a language compatible with their natural physical condition, (e.g. a visual language rather than an auditory/oral language). Not offering the early contact with the sign language means establishing the isolation of the deaf child, despite of surrounded by people who love her [6]. Vaccari and Marschark [19] approach that most deaf children do not have an effective communication with their hearing parents, but that communication plays an important role in its development and social-emotional growth.

It is understandable that parents seek solutions/cure for their child's condition. It is worth noting that most of these parents do not really understand what deafness is, dealing with it in the most stressful and less welcoming or productive way [6,20]. It is important for the child development the understanding of their parents about all aspects and implications of deafness which is essential to establish the proper relationship with the deaf children.

Most of the literature does not discuss deafness from both clinical and linguistic perspectives. Parents are influenced to face deafness as an incapability and end up establishing a dependent relationship where the child is always passive, needing their parents for life [20]. Currently, there is an urgent need to broaden the discussion about what is deafness and its relationship with sign language. Academic research is growing, but the scale of applied studies is poor, with low disclosure. It is still necessary to inform hearing parents that sign Language is the proper communication channel, seeking this access for their deaf child early in their lives [4].

Importantly, the sign languages have their own grammar structure, reaching the same linguistic level of oral languages. They have phonology, syntax, semantics and morphology, diverging from oral language in its gesture-visual mode [21]. Oral languages are transmitted through speech and vocal tract and being received by the auditory system. Differently, sign languages are transmitted mainly through hands and received by the sight [21]. The deaf child should get in contact with sign language as soon as possible, their natural language, in order to develop the cognitive system and build their own vocabulary.

The sign language enables deaf people to meet and share their daily experiences. In the hearing world, where almost all forms of communication are mediated by some kind of sound, the deaf are seen as foreigners in their own country. For some deaf children, living with their family is synonymous of a continuous linguistic search, in which they

attempt all the time to discover what their relatives are telling them. Whereas the first language experiences are acquired in contact with hearing parents, it is essential that these parents not only understand the natural language of their deaf children, but also know how to communicate with them through signs, allowing them to freely express themselves [1-4]. Being part of a family where it is not able to communicate is a cruel reality and common for most of deaf children. Few literary support is available for the hearing parents and as a result, the great challenge of lack of communication continues, being the first and foremost barrier to be faced by the deaf child as early as the first years of life [6].

The father that signs for his deaf child says that accepts his/her condition of not hearing, also recognizing the importance of their language. From that moment on, the father provides the means to establish a natural relationship with their children, assuring their understanding, attention, affection and love. By signaling to each other, parents and children open up a space to meet and minimize misunderstandings also strengthening their relations [17].

Learning a second language by any person requires consulting the linguistic knowledge acquired in the first language acquisition process (e.g. the hearing parents will look for the meaning in their oral language when learning Sign Language) [22]. Researches reported the linguistic meaning transfer of oral language to those who learn Sign Language, where the gestures represent the ideas that the hearing people would like to show in sign Language [22]. As any other language, the Sign Language has a grammatical structure that can and should be formally learned, since it can help significantly the communication between parents and sons/daughters when used appropriately. The use of sign language does not invalidate any future decision of the parents, but enable significantly the development of their deaf child with the essential exercise of thinking and understanding with their language experiences.

4. The Reading Process and the Deaf Children

The reading ability plays a very important role in deaf children's life. On that perspective, the habit of storytelling for children, including deaf ones, enables the presentation of social values by using attractive and ludic contexts, establishing a pleasurable relationship with the book at the same time that contribute to their intellectual construction. Concepts of right and wrong, good and bad, truth and lies, among many other relevant dichotomies are commonly worked in hearing children's stories.

Fantastic scenery, magical characters and an incredible timeless feeling open the doors to the imagination, where the child is able to dream, desire, smile and, why not, live deeply the narrated story, experiencing the sensations presented, creating their truths and bringing them to life. Generally, this fantasy scenario is introduced by the parents of the hearing child, but not by those of deaf children [17].

The infant literature brings an environment of comfort for the children, where they are free to make choices, fantasize and create their own reality. By telling stories to their children, parents are not only forming future readers, but also stimulating their imagination, which contributes significantly to their social life and for the constructing of their character. Supporting the children to read, help them to deal with their feelings, providing a full-feeling world, not always good, but constructive for their personality [17].

According to Giacomucci [17] during reading, the child can make their own decisions, including the possibility of identification with the characters of the story. The great magic of literature is to collaborate with the child's intellectual development without choosing between right and wrong, since the notion of moral values in most cases is a result of empathy for a character.

To reach the child's attention and help on developing good character values, it is essential that the story is drafted in a manner consistent with their intellectual maturity with proper language. In case of deaf children, the visual aspects, the written form of the oral language and the sign language interpretation should be present to make accessible the knowledge of the story world [5]. The main difficulty faced in the preparation of this kind of material is to create ways for showing the story, where as assist in the mental organization of the child. For example, cause and effect are not that simple to show as to understand that *'if she stepping into a puddle of water, her feet will be wet'* may not be that clear for a young mind to connect.

Introducing the deaf children to situations that may arise in their daily life is one way to contribute to their decisions. However, it is worth to notice that the actual way that things happen, the true path, is not always the same as the children sees. Their conception of the world has a simpler bias, but with possibilities that do not always permeate the notion of reality or fantasy, making a path to be explored in the development of children's books.

The stimulation of deaf children's imagination may help the cognitive development, giving the endless

possibilities of dealing with different situations. Every choice made in literary interpretation, the children will experience different emotions and feel different sensations related to their real life. The children's stories become therefore a sort of training zone to learn about their social life. From the moment that the children have the possibility of choosing the character they like best, they are actually performing an identification process, in which there is a motivation for choosing characters that have more features compatible with them.

Therefore, books can be a very useful instrument for instruction of deaf children by hearing parents and vice-versa. By working the representations of human actions and their consequences through an attractive approach, including the sign language, sets up a healthy and effective way to educate and, at the same time, be part of the intellectual construction of the deaf children and their hearing parents as well. The time-telling of stories means a part of the father or mother's time devoted to their sons/daughters, to know their preferences, understand their fears and, not least, to build their value.

Among the benefits of the reading experiences are: a) training the child's intellect, b) the close bond between parent and child, and c) the improvement of the language. The more the children read, the more vocabulary they acquire. All the linguistic context can be approached in the books in direct, indirect and healthy ways. Through reading, the child can be the reader or the *listener* that absorbs the language structure with or without abstracting it during the process.

Each sentence presented in a book may be a linguistic experience full of information. Grammatically, it may produce in the reader a certain familiarity with the language used or a estrangement feeling when children come across a sign that they do not know. Richard Bamberger in *'How to encourage the habit of reading'* [23] states that reading is one of the most effective way to systematically develop language and personality. Thus, by telling stories to the deaf children, besides encouraging a future potential reader, parents may contribute to the training of citizens responsible for themselves since very young age with the notion of right and wrong.

Several authors discussed about the importance of reading in childhood, including Bakhtin [24] that pointed children's literature as a motivating and challenging instrument capable of transforming the individual into an active person, responsible for their own learning. Currently there are different types of children's books (Table 2), for different age groups (Table 3).

Table 2: Classification of children's books from the characteristics of composition of their stories.

Kind of Book	Characteristic
Initial (First book)	Used to teach reading in early childhood. Made books, sometimes, cloth or plastic that contains stories to introduce the babies in a basic view of our world.
Illustrated	Focuses more on graphics than on the text. The text of the story complements the work of art when compared to the images add to the story.
Rhythmic	It involves rhyme or have a musical component. This genus also includes lullabies.
Folklore	Past history through generations and oral traditions for centuries. Folk tales used to create stories for children. Myths are often mixed with folklore, and these stories try to specifically explain different aspects of life. The purpose of these stories is to pass the knowledge to younger generations.
Fairy tale	Princes fighting for princesses dominate this genre. These stories have a magical component and are a more detailed way of explaining the world.
Fantasy	They are predominantly magical nature, but also involves, by this view, contemporary life. Often, there is an intense struggle of good against evil.
Conceptual	Concepts, ranging from dress to the split, are covered in these stories.
Thematic	Introduction of controversial issues facing society today. Examples include divorce, abuse, sexuality and war.

Adapted from the site data <http://ucanr.edu/sites/ReadytoSucceed/TypesofBooks/>

Table 3: Classification of children's books according to the characteristics of their readers.

Age (years)	Book Features	Number of Words	Reading Level Required
1 a 5	Storybooks with image, pre-books	Maximum number of words = 5	Identification of words
6 a 8	Picture books, easy books to read and storybooks with image	Maximum number of words = 10	Read alone sentences should average 5-6 words
8 a 12	Mix of pictures and text	Most books written in this level range between 20,000 and 40,000 words	Read sentences about 10 words maximum number of words that are 20
13 e 17	Structure and adult vocabulary	Most books written in this level range between 25,000 and 55,000 words	Read of longer phrases

Adapted from the site data <http://writersrelief.com/blog/2008/03/reading-levels-for-children-vocabulary-and-types-of-kids-books/>

Reading involves *hearing*, feel and see with the eyes of imagination and according to Abramovich [25] it is important for the formation of any child to listen many stories and have contact with an absolutely infinite path of discoveries and understanding of the world. The continuous reading with their parents can transform these children into future readers, writers and co authors of texts, citizens with knowledge of their own language and world. This reading practice covers phonological, syntactic, semantic and pragmatic experiences with visual and non-visual approaches that will allow inferences and extrapolations, where these children can discover other places, other periods of times, and other ways of acting and being [25].

Children's books can offer a "visual experience" - telling a story with images - which can be very important for deaf children and their closeness to their parents. These books may have a text and can sometimes be fully explained or illustrated with pictures. These pictured books do not even need to tell stories - they can illustrate the letters of the alphabet or numbers. This type of book can even tell a story entirely with illustrations only, allowing re-tell the story from the illustrations, pretending to "*read*" the book. The book images can be used to approximate hearing parents and deaf children, strengthening not only their personal relationships, but also their languages (Oral and Sign Language).

5. Digital Books And Deafness

According to Rosa [26], digital books are more likely to be understood by the deaf children, due to some features that allows them to present elements of deaf culture and sign language, eye movement and non-manual expressions. According to this author, deaf literature involves the history of deaf culture, language and identity, being of extreme importance for the understanding of what is being a deaf person. Karnopp [27] states that deaf literature also acquires the role of diffusion of deaf culture, giving visibility to their linguistic and artistic expressions coming from the visual experience.

Mourão [28] reported that the digital book images may allow children, deaf or not, to dive into the world of the imagination of children's stories, which when juxtaposed to the signs, which further help to the understanding of the narrative. Keep this triple alliance in a satisfactory agreement demands particular attention. A video in sign language associated with a text, as regards the translation, is not easy since the language structures operate differently in many cases. Thus, the role of the image is very important to offer meaning to the hearing families and to the story for the deaf child, functioning as a communicative attraction [28]. According to Spengler[29], the images gain different meanings to each reading, never losing their communicative ability.

The more visual the layout of the elements and characters, more favorable is the book to the deaf, maintaining the signage strategically right [30]. Figures in soft colors and arranged to not overlap any imagery information and the caption in oral Language below picture frame is a strategy to be used for the construction of books for the deaf community. Lebedeff [31] states that the skills of making inferences and produce coherent stories are essential for the reading comprehension by the deaf who are fluent in sign Language. During the narrative, a space intended for parents, including the Sign Language and the oral language, is also important. It should be accompanied by illustrative images that represent the narrative, without confusing it visually or even hinder the understanding of some illustration. This feature becomes significant when considering the different universes of hearing parents and deaf children, which live in the same house with different oral-auditory and visual-spatial languages, respectively [17].

The importance of preparing a digital material compatible with the bilingual nature of the deaf, with Sign Language and oral language in the written form have the potential of spreading the deaf culture and their identity [32]. According to the literature, the child's identification with the characters of children's stories promotes an even greater interaction with this person when reading it. Bettelheim [33] reported that this identification is the result of the child search for similarities with the characters of the story, a result of an attempt to understand or even justify certain everyday situations. This search also allows the child to be handed over at the time of reading, living the story as if they were the chosen character. So it's no wonder the common habit to almost all children, to dress or fantasize to be Cinderella, Spider-Man, Peppa the Pig, among many other heroes and characters, creating in their imaginary world the whole scenario.

Sanchez [34] and Skliar [35] recognize the importance of the first language - L1 (Sign Language) for the deaf in the acquisition of their second language - L2 (oral Language), stating that the L1 offers to these children the tools needed to seek and organize data and linguistic knowledge, general and specific. It has also to be considered that oral language works for the deaf as an instrumental language for the purpose of reading and writing, enhancing these skills if the deaf interacts with hearing people.

According to Sue li Fernandes [36], it is quite possible that the deaf dive into the reading and writing world that may have the sign language as its main element. Thus, the presence of sign language in stories for deaf children is necessary, to give meaning to the written language. It is not just the comfort of using the first language, but also the means to arrive at an understanding of the second language.

Know the morphology of words that make up the lexicon of oral language does not mean that the deaf or even hearing child has achieved literacy. This is a process in which they are proficient in writing and reading, being able to abstract the language through writing. In the case of deaf children, it indicates that they appropriated the image (visual aid) of words and uses them with cohesion or consistency. The author defends the idea that it is possible that deaf children have pleasure in reading, but to reach this stage it is essential to separate the pedagogical reading goal (systematization of formal knowledge) to the social practice (we do for pleasure). Deaf children may understand science without notice, using the sign language as basis for this acquisition, which allows them to understand the functional, lexical and grammatical aspects of the written oral language, informally.

In the case of the presence of the oral language in the written form, it can serve for both hearing people as a supporting language at the time of approaching the theme, as well as a possible identification of signals during the narrative for the deaf. A legend for the oral language may serve as a stimulus to learn this second language, able to

observe grammatical aspects such as the phrase structure, the arrangement of connectors, verbs, articles, adjectives, nouns, and the morphology [37].

According to Sardelich [38], as pictures can be great allies in the communication process as they may reveal perspectives, emotions and sensations, they cannot be used randomly. They must combine adequate space, image quality, color tones to reach all the communicative potential with minimal information texts and signs [39]. Thus, each illustration used need to have meaning and be in line with all others. In a series of children's books dedicated to hearing parents and their deaf children, everything should be visual and needed to be in harmony, talking to each other without confusion for family members or misleading information to the child.

Overall, based on the literature, the production of bilingual books for hearing parents - so they can read together with their deaf children - can significantly help the cognitive and emotional development of these individuals. However, preferentially these books should be produced by bilingual authors so they may have the same quality of those currently produced for hearing children.

6. References

1. Gentner, D., Özyürek A., Gürcanli Ö. and Goldin-Meadow S. (2013) Spatial language facilitates spatial cognition: evidence from children who lack language input. *Cognition*, 127:318-330.
2. Goldin-Meadow, S. (2005) What language creation in the manual modality tells us about the foundations of language. *Linguist Rev*, 22:199-225.
3. Spaepen, E., Coppola, M., Spelke, ES., Carey, S. and Goldin-Meadow S. (2011) Number without a language model. *Proc Natl Acad Sci USA* 2011, 108:3163-3168.
4. Imai, M., Kanero, J. and Masuda, T. (2016) The relation between language, culture, and thought *Current Opinion in Psychology* Volume 8, April, Pages 70–77.
5. Souza, MCT, Rocha, SM. and Castro, HC (2014) Teaching A Second Language For Deaf People: Why We Are Still Discussing The Obvious?. *Advances in Education*, v. 4, p. 8, 2015
6. Kushalanagar, P., Mathur, G., Rathmann, C. (2010) Infants and children with hearing loss need early language access. *J Clin Ethics* 2010;21(2):143–154.
7. Dias, L., Mariani, R., Delou, CMC., Winagraski, E., Carvalho, HS. and Castro, HC. (2014) Deafness and the Educational Rights: A Brief Review through a Brazilian Perspective, *Creative Education*, 5, 491-500. doi:10.4236/ce.2014.57058.
8. Chauí, M. (2006) A Linguagem. In: Chauí, M. *Convite à filosofia*, 13 ed, Ática, São Paulo, p.136-151.
9. Fitzpatrick, EM., Hamel, C., Stevens, A., Pratt, M., Moher, D., Doucet, SP., Neuss, D., Bernstein, A. and Na, E. (2016) Sign Language and Spoken Language for Children With Hearing Loss: A Systematic Review *Pediatrics*, Vol 137, n 1, 1-17.
10. Rachel, IM. (2007) When timing is everything: Age of first-language acquisition effects on second-language learning. *Applied Psycholinguistics*, 28, pp 537-549. doi:10.1017/S0142716407070294.
11. Fiorin, JL. (2009) *Língua, Discurso e Política*, ALEA, Vol. 11, número 1, jan/jun.
12. Saussure, F. (1969) *Curso de Linguística Geral*, Cultrix/EDUSP, São Paulo, p.17.
13. Oishi, S. (2014) Socioecological psychology. *Annu Rev Psychol*, 65:581-609.
14. Schug, J., Yuki, M. and Maddux, W. (2010) Relational mobility explains between - and within-culture differences in self-disclosure to close friends. *Psychol Sci: J Am Psychol Soc/APS*, 21:1471-1478.
15. Peixoto, RC. (2006) Algumas considerações sobre a interface entre Língua Brasileira de Sinais (Language de sinais) e a Língua oral na construção inicial da escrita pela criança surda. Available electronically from www.scielo.br/scielo.php?script=sci_arttext&pid=S0101-32622006000200006.
16. Brasil (2014) Nota Técnica nº 73 / 2014 / MEC / SECADI / DPEE. Atualização dos indicadores da educação especial na

perspectiva inclusiva.

17. Giacomucci, A. (2016) A Research Project Proposal for Measuring How SRAs with Bilingual ASL/English Ebooks Teach Deaf Children Storytelling Conventions. Available electronically from <http://hdl.handle.net/10066/17571>.
18. Flaherty, M. (2015) What We Can Learn From Hearing Parents of Deaf Children, *Australasian Journal of Special Education*, 39, pp 67-84. doi:10.1017/jse.2014.19.
19. Vaccari, C. and Marschark, M. (1997) Communication between Parents and Deaf Children: Implications for Social-emotional Development. *Journal of Child Psychology and Psychiatry*, 38: 793–801. doi: 10.1111/j.1469-7610.1997.tb01597.x
20. Strnadová, V. (1995) *Como é ser surdo*, Editora Babel, Rio de Janeiro.
21. Ferreira Brito, L. (1995) *Por uma gramática de Língua de Sinais*. R.J.: Tempo Brasileiro.
22. Taub, S., Galvan, D., Piñar, P. and Mather, S. (2006) *Gesticulação e aquisição da ASL como segunda língua*. Questões Teóricas das Pesquisas em Línguas de Sinais. UFSC:Florianópolis, SC.
23. Bamberger, R. (1995) O ensino eficaz da leitura. In: Bamberger, R. *Como incentivar o hábito de leitura*. 6. ed. São Paulo: Ática, Cap. 3, p. 22-30.
24. Bakhtin, M. (1992) Os gêneros do discurso. In: Bakhtin, M. *Estética da criação verbal*. São Paulo: Martins Fontes.
25. Abramovich, F. (2006) *Literatura infantil: gostosura e bobices*. 5.ed. São Paulo: Scipione.
26. Rosa, FS. (2011) *Literatura Surda: O Que Sinalizam Professores Surdos Sobre Livros Digitais Em Língua Brasileira De Sinais – Language de sinais – Dissertação submetida na Universidade Federal do Rio Grande do Sul*, 2011.
27. Karnopp, L. (2008) *Literatura Surda*, Universidade Federal de Santa Catarina, Florianópolis.
28. Mourão, CHN. (2011) *Literatura Surda: Produções Culturais de Surdos em Língua de Sinais*, Dissertação submetida na Universidade Federal do Rio Grande do Sul.
29. Spengler, MLP. (2010) *Livro de Imagem: Quando a ilustração se faz dona da palavra*. Available electronically from www.oepli.org/desc/Actas2010/Papers/10_27.pdf.
30. Goker, H., Ozaydin, L. and Tekedere, H. (2016) The Effectiveness and Usability of the Educational Software on Concept Education for Young Children with Impaired Hearing. *Eurasia Journal of Mathematics, Science & Technology Education*, 12(1), 109-124.
31. Lebedeff, TB. (2002) *Análise do reconto de histórias em língua de sinais e escritas por pessoas surdas*, Tese (Doutorado) – Programa de Pós-Graduação em Psicologia do Desenvolvimento, Universidade Federal do Rio Grande do Sul, Porto Alegre.
32. Silveira, CH, (2006) *O Currículo de Língua de Sinais na Educação de Surdos*, Dissertação submetida na Universidade Federal de Santa Catarina.
33. Bettelheim, B. (2002) *A psicanálise dos contos de fadas*. 16.ed. Rio de Janeiro:Paz e Terra.
34. Sanchez, C. (1999) *La lengua escrita: esse esquivo objeto de la pedagogia para sordos e oyentes*. In: Skliar, Carlos (org.) (1999) *Atualidade da educação bilíngue para surdos: interfaces entre pedagogia e linguística*, v.2, Porto Alegre : Mediação, p.35-45.
35. Skliar, Carlos (org.) (1999) *Atualidade da educação bilíngue para surdos: interfaces entre pedagogia e linguística*,v.2, Porto Alegre : Mediação
36. Fernandes, S. (2006) *Práticas de letramento na educação bilíngue para surdos: Caminhos para a prática pedagógica*, SEED, Curitiba.
37. Fernandes, E. (2003) *Linguagem e surdez*, Editora Artmed, Porto Alegre.
38. Sardelich, ME. (2006) *Leitura de Imagens, Cultura Visual e Prática Educativa*. *Cadernos de Pesquisa*, v.36, n.128, p.415-472, maio/agosto.
39. Goker, H., Ozaydin, L. and Tekedere, H. (2016) The Effectiveness and Usability of the Educational Software on Concept Education for Young Children with Impaired Hearing. *Eurasia Journal of Mathematics, Science & Technology Education*, , 12(1), 109-124.

Please Submit your Manuscript to Cresco Online Publishing

<http://crescopublications.org/submitmanuscript.php>