

# **BRAZILIAN DEAF STUDENTS AND COLLABORATIVE LEARNING: SIGN LANGUAGE USERS LEARNING PORTUGUESE AS A SECOND LANGUAGE**

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## **ABSTRACT**

Brazilian deaf students face difficulties in learning Portuguese as a Second Language. In this paper, the experience of peer work is discussed in terms of collaborative learning, based on Vygotsky's sociocultural theory. Observation and students' reflections upon this experience point it as a constructive approach in their language learning process.

**Key words:** collaborative learning, Portuguese as a Second Language, deaf students.

## **INTRODUCTION**

This paper aims at providing some insights into the use of a collaborative approach in the learning process of Portuguese written language by deaf students who are users of Libras (Brazilian Sign Language) while they were taking part in a task in which they had to write a story based on some pictures. We used, as a way to comprehend their performance in such a task, sociocultural theory and theories about collaborative learning. These theories assume that learning is facilitated through interaction and collaboration (Vygotsky 1978). The analyses presented in this paper are based on the observation of a text production class and the students' reflections on collaborative learning. This study is justified by the fact that there is a lack of researches about collaborative learning from the perspective of deaf students.

Bruffee (1999), Figueiredo (2006), Nunan (1992), Nyikos and Hashimoto (1997), among others, have researched collaborative learning and the benefits provided by this teaching/learning approach when used with students who are not deaf. The results of these researches show that students benefit from the collaborative interaction they have with their peers and, based on that, we decided to investigate the benefits that collaborative learning might bring to the learning of Portuguese written language by Brazilian deaf students.

## **SOCIOCULTURAL THEORY**

According to Vygotsky (1978), not only have humans sought to adapt to their external world through assimilating the laws of nature, but they have also tried to control and master nature. To do so, individuals, in collaboration with other individuals, invented tools to shape their world according to their needs. Tools used in work "function as mediators, as instruments which stand between the subject (the individual) and the object (the goal towards which the individual's action is directed)" (Lantolf and Appel 1994, 7). The tool's function is "to serve as the conductor of human influence on the object of activity; it is *externally* oriented; it must lead to changes in objects. It is a means by which human external activity is aimed at mastering, and triumphing over, nature" (Vygotsky 1978, 55; emphasis in the original).

Vygotsky (1978) extended the notion of instrumental mediation by drawing an analogy between technical tools and what he called psychological tools. Psychological tools include "mnemonic techniques, algebraic symbols, diagrams, schemes, and, of course, language, all of which serve as mediators for the individual's mental activity" (Lantolf and Appel 1994, 8). According to Donato and McCormick (1994), mediation, in a second language (L2) classroom, or in the L2 learning process, can take the form of

a textbook, visual material, classroom discourse, opportunities for L2 interaction, instruction, or other kinds of teacher assistance. All these artifacts function as mediators for the individual's cognitive development, and, consequently, influence their zone of proximal development (ZPD), which is defined as "the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under the guidance or in collaboration with more capable peers" (Vygotsky 1978, 86).

As we can see, Vygotskian theory claims that cognitive processes are mediated by sociocultural interactions. Thus, psychological processes are initially social and they later become individual. According to Vygotsky (1981), the child goes through three stages of cognitive development:

- a) *object-regulation*: in the early stages of mental growth, the environment exerts influence on the child;
- b) *other-regulation*: the child is capable of carrying out certain tasks with the help of another person;
- c) *self-regulation*: the child develops some strategies to carry out some tasks independently.

The transition from other-regulation (intermental activity) to self-regulation (intramental activity) is favored by interactional support called *scaffolding*<sup>1</sup> and it "takes place in the zone of proximal development where child and adult engage in the dialogic process" (Lantolf and Appel 1994, 12).

Thus, we relate the concept of ZPD to the idea that learning is an interpersonal activity, which emphasizes the social nature of learning and the importance of collaborative learning.

## **COLLABORATIVE LEARNING**

Collaborative learning is a constructivist approach which roughly refers to a "situation in which *two or more* people *learn* or attempt to learn something *together*" (Dillenbourg 1999, 1; emphasis in the original). Through this kind of dialogic approach, students can develop opportunities for learning by using each other as resources and they also have the chance to notice the gap between what they know and what they still have to learn.

Collaboration, in the learning process, involves joint intellectual effort by students or students and teachers (Bruffee 1999, Kessler 1992). By means of this supportive approach, students can give and receive ideas and help one another achieve their objectives in the learning process.

## **BRASILIAN DEAF STUDENTS LEARNING PORTUGUESE AS AN L2**

Besides having organizing and planning functions, language also has a communicative function and it is known that its absence can lead to cognitive, educational, cultural, and social difficulties in children, for it is an important instrument of man's thought (Vygotsky 1962). Children who are able to hear are exposed to and get voluntary and involuntary existing auditory stimuli around them since they are born, and that will help them in the construction of meanings in an implicit and spontaneous way.

On the other hand, not only are deaf children deprived of sounds that occur around them but they also cannot hear themselves, and this fact leads them to a partial and fragmented perception of the world, based on what can be concretely felt and visually seized. In order to have favorable conditions for linguistic development, deaf children need to be exposed to adequate stimuli in an accessible language, which, in this case, is sign language (Quadros 1997, Sacks 1989, Salles *et al.* 2004). From a

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<sup>1</sup> The term *scaffolding*, coined by Wood, Bruner and Ross (1976), describes the effective intervention by a peer, adult or competent person in the learning of another person.

cognitive perspective, the domain of a mother tongue (L1) is a facilitating factor for the appropriation of an L2 (Cummins 2000).

In Brazil, a considerable number of deaf learners go to school and start to be taught in Portuguese as an L2 presumably without having satisfactorily acquired Libras as their L1, and this happens because most of them are born in hearing families who generally have no experience in sign language.

Differently from most hearing learners of Portuguese as an L2 who already have experienced writing in their own native languages, deaf learners lack this process for the teaching of sign writing systems. *Sign Writing*, by Sutton (1981), and *Elis*, by Estelita (2007), are incipient sign writing systems. By paraphrasing Svartholm (1998) who asserts that, for the deaf, the task of learning to read is closely related to the task of learning the language, we dare say that the task of learning to write is also related to the challenge of learning another language. Therefore, writing in Portuguese is a daunting task for the deaf as they face difficulties in printing what they have in mind. Leki (2001 *apud* Wigglesworth and Storch 2012) states that writing is seen as a typical individual activity. However, according to sociocultural theory, second language acquisition involves cognitive processes that are implemented only through the participation of the individual in institutional and cultural contexts, as it understands that the most important cognitive activities are developed via social interaction (Donato and McCormick 1994).

## THE RESEARCH

This study was conducted under a careful ethical base according to the ethnographic research principles (Agar 1996), in a qualitative and descriptive approach (Fetterman 1998). Data were provided by means of observation, video recording of a Portuguese class during a collaborative writing task, and interviews with the participants.

The participants of this research are deaf students who take Libras as a major at Universidade Federal de Goiás, and they were enrolled in a Portuguese as a Second Language course. Among the goals of the course, it aims to meet the statements of Brazilian policies to ensure social inclusion of the deaf through academic training. The participants have acquired Libras as an L1 and have also studied Portuguese as an L2 for at least eight years. Despite being university students, the participants still have significant problems in reading and writing in Portuguese.

The study aims at investigating whether deaf students prefer working with a partner or by themselves during the Portuguese lessons. They were asked to perform a task collaboratively. They had to write a story based on some pictures and, in order to do so, ten scrambled pictures were given to each pair of students. They were asked to pick up only five out of the ten pictures, and, in collaboration with their peer, they had to build up a story based on the chosen pictures.

## RESULTS

Parts of the interview and language-related episodes (Swain and Lapkin 1998) were analyzed based on the sociocultural theory.

The students were named A1 and A2, B1 and B2, since there were two pairs of students. The students' interactions in Libras were transcribed into Portuguese and, for the purpose of this paper, turned into English.\*

The texts produced by the participants were not considered for analysis, since the focus of this study lies on what was said during the interactions and the interviews.

Pairs A and B were very favorable to the collaborative aspect of the task, and they emphasized the exchange of ideas as something good.

A1: It is good to work together because we can exchange ideas ...\*

A2: If we have different opinions, we can say and choose the best one.\*

The following episode demonstrates how they negotiate meaning. The discussion was about the profession of the man in the picture.

A2: Look, the man is walking... he looks like a doctor... is he a doctor?\*A1: No. Not a doctor... a social worker?\*A2: No...no... a lawyer!\*A1: Yes that's right!!! A lawyer talking about justice.\*

The same need for negotiation was noticed in pair B, when the participants had to decide if the person was a man or a woman, as can be seen in the following excerpt:

[B1 started writing *The woman...*]  
B2: Is this a woman? I think it is a man... \*  
B1: It is a woman... See the hair... long ... \*  
B2: Men can have long hair... \*  
B1: So... write down P-A-T-I-E-N-T\* [The student spells the word by means of dactylogy]

The possibility to ask the colleague for some assistance when in doubt or when feeling unsure was also mentioned by the participants as an advantage of collaborative work, which confirms studies conducted by Bruffee (1999), Donato and McCormick (1994) and Figueiredo (2006), among others.

A2: Working in pairs is better... it is easier to clear things up.\*  
A1: If it is hard to understand, the peer helps you.\*

We can see, in the following example, how the students worked collaboratively by providing each other with the necessary scaffolding for the construction of the story:

A2: Why is he arrested?\*A1: He is a thief. He stole... \*  
A1: I am going to call a friend... a friend or the police?\*A2: Not a friend... I think the police... the window is broken... \*  
A1: Yes... the police is better\*

Pair B also emphasizes the sharing of knowledge and helping each other in times of doubts as something beneficial for them:

B1: She knows the words... but I know too... but sometimes I don't... We help each other... \*  
B2: Whenever I have doubts... she teaches me... but I can teach her too... when I know... we help each other!\*

In the following episode, B1 and B2 are trying to solve a vocabulary problem:

B1: ... telephoned the police... what preposition in here? \* [Note: In Portuguese we use the preposition TO after the verb TELEPHONE ].  
B2: [spelling the word] T-O. .. she telephoned T-O the police.\*

Not only did the students help each other in the learning of Portuguese, but they also assisted themselves mutually in the learning of some signs in Libras. In the following example, A2 asks A1 to repeat the signs for *thief* and *steal*. Then A2 comments that these signs are similar, and A1 teaches her a verb in Portuguese:

A2: They are similar... \*  
A1: The thief was taken into prison... t-a-k-e-n is a verb). [She spells the word T-A-K-E-N by using dactylogy).  
A2: Yes. Right.\*

However, despite the assistance the students might have from a peer, B1 asserts that working alone is better because some Brazilian deaf people might have difficulties in writing in Portuguese.

B1: Working together is difficult. The deaf does nothing...\*

Nonetheless, we could see from the data that B1 did not realize that B2 was making a great effort to do the task. We can conclude that students' preferences for one type of activity (working alone or working with a peer) may be related to previous experiences, generally not pleasant ones. Also, there are students who feel uncomfortable about working with a peer because they distrust their colleague's abilities to help them (Mürau 1993). This seems to be true when one participant is more competent than the other. B1 is quite fluent in Portuguese, so he did not trust B2, who is not as fluent in that language.

On the other hand, B2 declared that working together is good, even being discredited.

B2: I like it. When we don't know, we ask\*

The data presented in this paper show us that collaborative learning can also make deaf students become more active and reflective upon their learning process of Portuguese as an L2, as they are regulated and assisted with scaffolding by their peers during the performance of interactive tasks (Vygotsky 1978).

### **SOME FINAL REMARKS**

Despite the fact that B1 preferred working by himself, we noticed that the three other students demonstrated an affirmative and positive attitude towards collaborative learning. The mediation between students of similar competence working in pairs proved to be a facilitating factor for the linguistic development of students, as mentioned by Bruffee (1999), Figueiredo (2006), Kessler (1992), Swain and Lapkin (1998). Students discussed issues about their own language and about Portuguese and they would hardly do that if they had to work by themselves. We could also see that three of the deaf students highlighted the importance of the other for their own linguistic developmental process.

The present study is subject to limitations concerning the small number of participants, and, because of that, the results should not be generalized.

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