A visually–impaired english learner in the context of virtual environments: analyzing learning strategies

Un estudiante de inglés con limitación visual en el contexto de los ambientes virtuales de aprendizaje: analizando estrategias de aprendizaje

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RESUMEN

El objetivo principal de este reporte de investigación es exponer cómo aprende inglés un estudiante con limitación visual en el contexto de los cursos virtuales en una universidad pública colombiana. Esto se llevó a cabo a través del análisis de las estrategias de aprendizaje utilizadas por el estudiante en las tutorías.

El análisis desde una perspectiva cualitativa mediante observaciones y entrevistas ayudó a determinar que los tutores que trabajan con estudiantes con necesidades especiales deben enfocarse en las fortalezas y estrategias de aprendizaje que estos han desarrollado y analizar las posibles nuevas estrategias implementadas por ellos. Adicionalmente, este análisis ayudó a tener una mirada más de cerca a la forma en que estas estrategias de aprendizaje (cognitivas, metacognitivas y socioafectivas) no fueron usadas de manera aislada sino simultánea y sincrónica y cómo han sido impulsadas por el contexto laboral del estudiante con limitación visual, su motivación, su interés en el idioma e incluso por su escases de vista.

Palabras claves: Estrategias de aprendizaje, educación especial, ambientes virtuales, limitación visual.

ABSTRACT

The main objective of this research is to report on how a visually-impaired student (VIS) learned English in the context of virtual environments in a Colombian public university. In order to achieve the goal, an analysis of the learning strategies used by the students in the tutorial sessions was conducted. Through a qualitative perspective, observations and interviews were carried out to learn about the learning strategies the VIS had developed. The results show that the VIS used several types of learning strategies: Cognitive, metacognitive an socioaffective ones, suc as, memory, analyzing, repetition, evaluating and monitoring his learning, taking risk, asking for confirmation, asking for additional input.

Keywords: Learning strategies, special education, virtual environments, visual-impairment.

INTRODUCTION

Teaching English to diverse individuals, in this particular case to a *visually-impaired* student, becomes part of the additional effort that should be made to insert this population in existing programs so that they can participate on equal terms in the consumption and production of knowledge, goods and services that circulate in an increasingly globalized world.

Consequently, it seems urgent to rethink the teaching methods and materials used for English teaching to visually-impaired students and design well-thought syllabi and methodologies so as to meet the needs of these students. "People with sensory disabilities introduce new challenges to educational institutions, since they must have the resources and the know-how to integrate these various types of students. They require special pedagogical strategies to ensure that they assimilate all of the information provided in the classroom" (Carrillo, Lancheros & Pavlich, 2012).

Several works have been developed in order to answer to these needs. Aikin Araluce (2003) developed didactic materials for visually-impaired students in Spain, based on her consideration that these students will be able to learn different languages if they have access to activities in which communicative functions are more important than the linguistic code. In the same direction, Co kun (2013) introduces in his research in Turkey, the use of T3 or talking tactile, a specially made Braille-free tactile layout that uses a combination of touch, sound and learn systems denominated audio-haptic pedagogy that reproduces information that can be vocal, musical or other audio sounds.

The application of T3 and the design of the didactic materials in ELT fields are expected to make a contribution to the disregarded area of foreign language teaching for visually-impaired students. In fact, some authors have suggested assistive technology and virtual environments as an opportunity to offer access to education to people with disabilities and improve their lives (Alper & Raharinirina, 2006). Nonetheless, the first impression of virtual courses is that these are designed for *sighted* learners. According to Goggin and Newell (2003), this continuing "disability divide" in internet use has led researchers to acknowledge that "while the Internet has brought changes to the lives of many people with disabilities, they have also been firmly kept in the margins online or just left offline" (Goggin & Newell,2003, p. 110, cited in Abeele, de Cock & Roe, 2012). For this reason, in this paper the following issues are presented as a manner to derive pedagogical implications which can be useful for teachers of visually-impaired students: The identification of the learning strategies that visually-impaired students resort to in order to learn English in the context of online courses and the teacher's mediation to teach a visually-impaired student.

In the next section, a rationale that exposes the concepts of sociocultural theory and special education are presented. Then, a brief review of the language learning strategies follows these concepts. After that, I present the case study I led by describing the data collected and the analysis made.

SOCIOCULTURAL THEORY AND SPECIAL EDUCATION

This study is underpinned by the sociocultural theory because special education was the main domain used by Vygotsky to obtain data to support his general theoretical conceptions (Gindis, 1990). These studies helped modify the purpose of special education from giving supervisory care to educating students. These groundbreaking and

even revolutionary educational research studies also established the benefits of early intervention and helped to create the commitment to the development of the field of special education.

For Vygotsky, impairment leads to a restructuring of social relationships and to a displacement of all the systems of behavior. The primary problem of disability is not the impairment itself but its social implications (Gindis, 1990). He promoted a model of special education that might be called inclusion based on positive differentiation in which education starts from the strengths of the individual instead of the weaknesses.

Vygotsky discovered the connecting links between the socio-cultural processes taking place in society and the mental processes taking place in the individual (Gindis, 1990). His vision of remedial education was based on creating disability-specific compensatory strategies. For him, special education should not be a diminished version of general education, but a specially designed setting where the entire staff is able to serve the specific needs of the individual with disability.

Vygotsky made emphasis on the dynamic nature of disability and argued that constant changes take place in disontogenesis at structural and content levels, during the children development and under the influence of education and remediation. Basic principles of children development, such as, internalization of cultural activities and symbolic tools as inner psychological process, are fully applicable to handicapped children. On the other hand, the development of handicapped children are very different in the way and means the internalization of culture occurs: in handicapped children compensatory strategies (mechanisms) are built, and social complications emerge due to the disability (Gindis, 1995; Kozulin & Gindis, 2007).

He puts forward the concept of the Zone of Proximal Development in which he classified development into two levels: "the distance between the actual developmental levels as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance, or in collaboration with more capable peers" (Vygotsky, 1978, p.86).

From Lev Vygotsky's notion of Zone of Proximal Development, some enlightenment to special education can be drawn as Wang suggested in his article about the impact of Vygotsky in special education:

> 1st. Cognitive development is triggered by social interaction. The disadvantageous social interactional environment may cause unfavorable development of cognitive ability.
>
> 2nd. Gradual assistance and guidance prompts the cognitive development zone of the special children to expand.
>
> 3rd. Cognitive assessment needs help of consistent interactional procession, for truly identifying the real potential of children.
>
> 4th. Cognitive assessment not only finds out children's initial learning level, but also paying attention to the level of improvement they get from the teaching.
>
> 5th. Effective teaching must offer students teaching material in accordance with their learning level, inspiring relevant knowledge accumulation, concentrating on important information and raising interaction of positive and negative cases as employed by Socrates. (Wang, 2009, p. 101).

According to Lev Vygotsky's notion of Zone of Proximal Development and the interpretation shared by Wang, it is important to know what the disabled person can do instead of what the ministry of education expects them to do or what

the society wants them to do. These disabled people may have weak points in some areas, but they also have strong points that can show other capabilities.

LANGUAGE LEARNING STRATEGIES

"Language learning strategies are commonly defined as the operations or processes which are consciously selected and employed by the learner to learn the Target language (TL) or facilitate a language task" (Lewis & Hurd, 2008). They might be cognitive, metacognitive or socioaffective. Ehrman & Oxford, (1990) provided a classification comprising six groups for language learning strategies: Direct strategies, in which is included memory "for entering information into memory and retrieving it" and within it, strategies such as creating mental linkage, applying images and sounds, reviewing well and employing action. The second type is cognitive strategies or strategies to manipulate the language and reproduce the meanings. These include practicing, receiving and sending messages strategies, analyzing, reasoning and creating structure for input and output. The third type is compensation strategies in which guessing intelligently and overcoming limitations in speaking and writing are examples.

In the same way, indirect strategies were also mentioned by the author who suggested the following classification: Metacognitive strategies, such as centering learning, arranging and planning and evaluating learning. Affective strategies include lowering your anxiety, encouraging oneself, and taking down one´s emotional temperature and finally, social strategies such as asking questions, cooperating with others and empathizing with others.

In the case of visually-impaired students, "compensatory strategies are effective because they are based on higher mental processes that may be relatively unaffected by the severity or type of the person's disability. They are by no means mechanical substitutions for impaired functions; they are aimed at mastering psychological tools and using them to acquire cultural forms of behavior" (Kozulin & Gindis, 2007, p.344).

Since compensatory strategies are triggered when the learner, in order to keep the communicative goal, compensates for insufficient means, we should analyze the implications of using them, for example, if there is cooperative learning, self-monitoring or any way to create a special code to *survive* while learning the language.

On the other hand, the context of virtual environments promotes the concept that "learning is also shifting toward more self-directed, self-regulated learning, supported by the socially based tools and technologies of the Web 2.0 movement" (McLoughlin & Lee, 2010, p. 6, cited in Sun, 2014, p. 29). This speaks of the autonomous online student profile and the perspective that learners might have about learning a language in a distance education context.

Other reasons that might affect the selection of strategies employed by the learners while learning a second language are: Motivation, gender, cultural background, attitudes and beliefs, age and learning style (Oxford, 1994, cited in Jooneghani, Jozani, & Lai-Mei, 2012). These factors point to the challenge for teachers. In fact, the different learning strategies and approaches contained in the different theories of language learning and acquisition have generated controversy in deciding whether one methodology is better than the other or if a mix of some of them is necessary.

Nonetheless, a set of generalities that might serve as the basis for language teacher education can

be established. Ellis (2005) proposes a series of principles to guide second language instruction:

1. Instructions need to ensure that learners develop both a rich repertoire of formulaic expressions and a rule-based competence.

2. Instruction needs to ensure that learners focus predominantly on meaning.

3. Instruction needs to ensure that learners also focus on form.

4. Instruction needs to be predominantly directed at developing implicit knowledge of the L2 while not neglecting explicit knowledge.

5. Instruction needs to take into account the learner's built-in syllabus.

6. Successful instructed language learning requires extensive L2 input.

7. Successful instructed language learning also requires opportunities for output.

8. The opportunity to interact in the L2 is central to developing L2 proficiency.

9. Instruction needs to take account of individual differences in learners.

10. In assessing learners' L2 proficiency it is important to examine free as well as controlled production (Ellis, 2005, p. 6-14).

In the context of visually-impaired students, these principles might help to accomplish the objectives of the learning stages and what is necessary at this point is to match each principle to the right strategies in a way to help learners to identify what works for them and what does not.

From this point on, it is significant that each principle can be carefully regarded as an option of

application to visually impaired English learners. For example, a ruled-based instruction might be difficult since this type of student is not reading the rules or watching the position of the parts of speech in a sentence. Instead, they listen to the word order while the teacher gives examples and try to reproduce it in the same way. It would be time consuming to try to explain everything, why a word is here, why there, why at the beginning etc. So, grammar rules should perhaps be "explained" inductively in order to facilitate the interaction, avoid confusion and take advantage of class time. This situation reaffirms principle four which recommends that implicit knowledge of the L2 should be introduced while not neglecting explicit knowledge anyway. At the same time, this opens the door of the communicative language teaching, which considers that language is not just patterns of grammar, but language functions and that if the students get enough exposure to the language and are motivated enough, then language learning will take care of itself (Harmer, 2007).

METHODOLOGY

I now discuss the case study in which the learning strategies used by the visually- impaired student were analyzed in the tutorial sessions of a virtual English course at a public university.

The primary interest of this work was to understand how a visually-impaired student learns English, focusing on the learning strategies that he uses on this particular situation and this learner special needs.

Participants

In this case study, there was a female English teacher and a visually-impaired psychology student from a public virtual university whose head office is located in Barranquilla.

The student has A1-A2 level and is very motivated in the class, since he has had access to music and radio/TV programs that are English. He is a 24 years old young man who is in the 8th semester and is interested in sport psychology since he likes soccer and baseball very much. He suffers from a degenerative eye disease called *retinitis pigmentosa*, which is one of the most common forms of inherited retinal degeneration and is characterized by loss of the light sensing (Hartong, Berson & Dryja, 2006)

Besides the difficulties implied because of his lack of sight, the student is working in a fast food restaurant and is able to perform most of the daily activities on his own.

He is taking a level 3 course from the regular courses of the university. The course is developed through the Moodle platform. This implies access to didactic contents, online learning processes and tutorial sessions carried out through the Virtual Campus. Among the services offered are: Access to the virtual library, online tools for collaborative learning such as forums, chat, wiki, debates, discussion groups, practices and laboratories in the courses, online final assessments and exams through the technological platform, automated report of feedback and grades. The university also offers traditional mediation through face-to face tutorial sessions in which there is access to labs, computer rooms, tutors as well as materials to use and consult. The tutorial accompaniment has the purpose of providing academic and methodological support regarding the synchronous and asynchronous processes, and it is also a means for evaluating and monitoring progress.

The English tutorial sessions for the visually-impaired student were organized in order to cover the course agenda. Therefore, the student met the tutor 2 times per week during the semester and the tutorial sessions lasted between 1 and 3 hours.

DATA COLLECTION

Four unstructured observations were carried out during the semester. The entire tutorial sessions were recorded for later transcription. The first one was on August 22nd 2014, the second one on September 16th 2014, the third one on October 14th 2014 and the last one on November 5th 2014.

The transcriptions were categorized in order to analyze the information collected related to his learning strategies. The information collected was organized in a chart in which the terminology of the different types of learning strategies were described based on each participation of both the student and the teacher.

A second instrument used in this work was the interview. The visually-impaired student was interviewed twice. The first one was applied at the beginning of this research and the second one at the end. Consequently, both of them were recorded for later transcription and analysis.

In the following description, the learning strategies categories will be presented (Table 1).

Table 1. Categories of learning strategies

Learning strategies (Oxford, 1989) and data driven strategies		
Cognitive strategies	**Metacognitive strategies**	**Social strategies**
- Practicing - Repetition	- Evaluating and - Monitoring your learning	- Empathizing with others.
- Receiving and sending messages: Getting the idea quickly	- Centering your learning: Paying attention	- Asking questions
- Analyzing and reasoning	- Centering your learning: Delaying speech production to focus on listening	- Asking for confirmation
- Creating structure for input and output - Summarizing	- Taking risks - Thinking aloud	- Following the conversation.
- Translating	- Showing evidence of understanding or analysis (backchanneling)	- Asking for a review
- Using L1		- Getting recognition
		- Asking for additional input
		- Approving
		- Face saving

Affective strategies	**Memory**	**Compensation strategies**
- Lowering anxiety	- Creating mental linkages - Making associations - Contextualizing words	- Guessing intelligently
		- Overcoming limitations in speaking and writing - Approximating and coining words
		- Description
- Using laugh to keep a friendly dialogue	- Recalling	- Attempting to give an answer
	- Resorting to visual residue	
		- Language mixing
	- Wrapping up. - Retaking previous ideas	- Code-switching

ANALYSIS OF THE OBSERVATIONS

Four observations were carried out during the semester and the following aspects were categorized in order to analyze the information collected regarding the learning strategies.
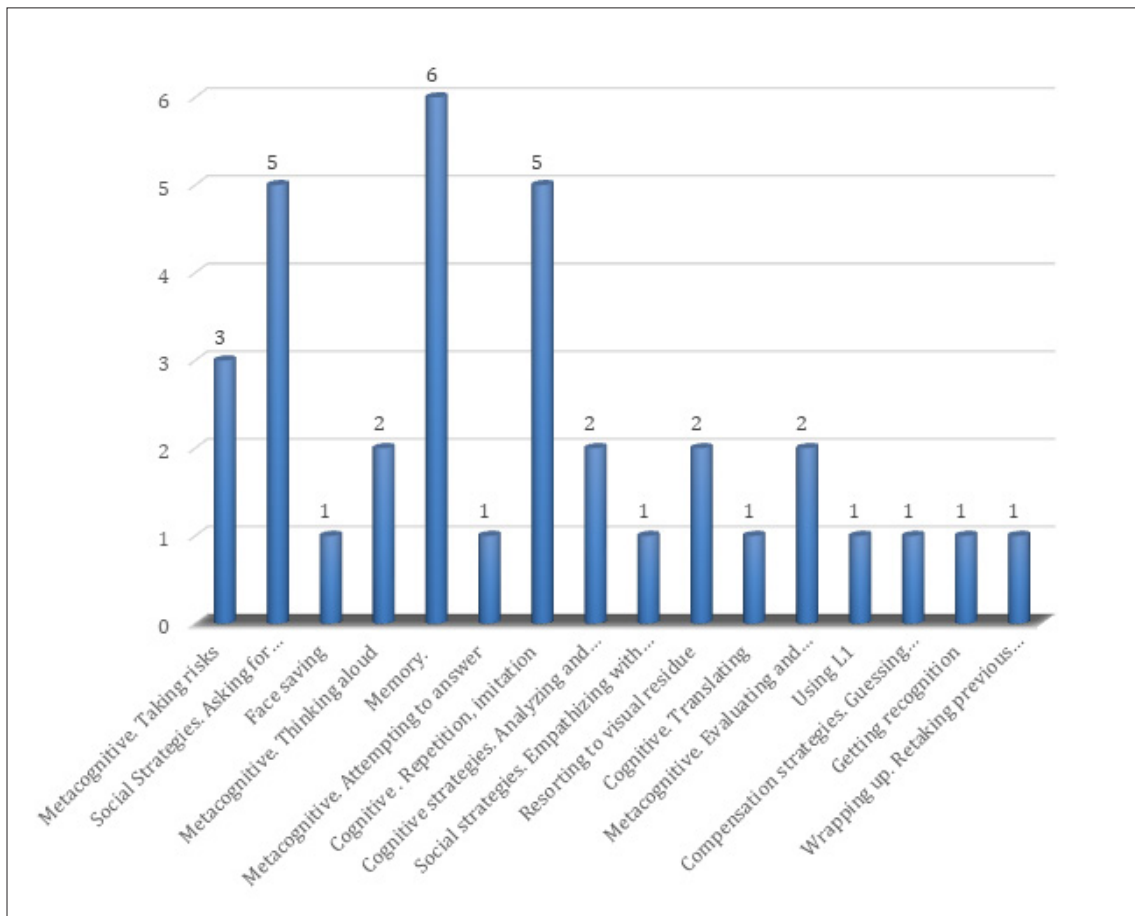
The observations allowed collecting the description of the interaction in the class and the different learning strategies used by the VIS student. The interviews analysis determined that the most common strategies used by him are memory and cognitive strategies. Furthermore, there is evidence

of the use of metacognitive and compensation strategies.

In the following analysis, the use of other learning strategies during the observations will be described throughout the sessions recorded.

It is clear that at the beginning of the semester the learning strategies that were used the most by the VIS student were: *Memory, asking for confirmation, repetition, taking risks, thinking aloud, as it is shown in Graph 1.*

Graph 1. Distribution of the learning strategies used by a VIS on August 22nd 2014

Asking for confirmation was commonly used because the students was not able to see the screen and he was in a beginner level. Then, he relied on what he heard all the time and there were several situations in which he needed to check if he was following the conversation, understanding the new words or questions.

T: ¿Quieres usar good afternoon?

VIS: Si. Creo que significa buenas tardes, ¿verdad? (Observation. August 22nd 2015. Turn 9-10)

As a VIS, he has developed a good *memory* in order to keep a mental record of locations, voices, tools and words that he cannot actually see written. The English language has also become a system that he ¨studies¨ while making associations with radio, music or TV programs information, recalling past events, people or favorites activities. In fact, he mixes the strategies asking for confirmation with memory because he likes checking if what he has got in mind or what he has memorized is correct or not.

VIS: No se puede decir ¿Roster?

T: What it means roster? ¿Qué significa esa parte?

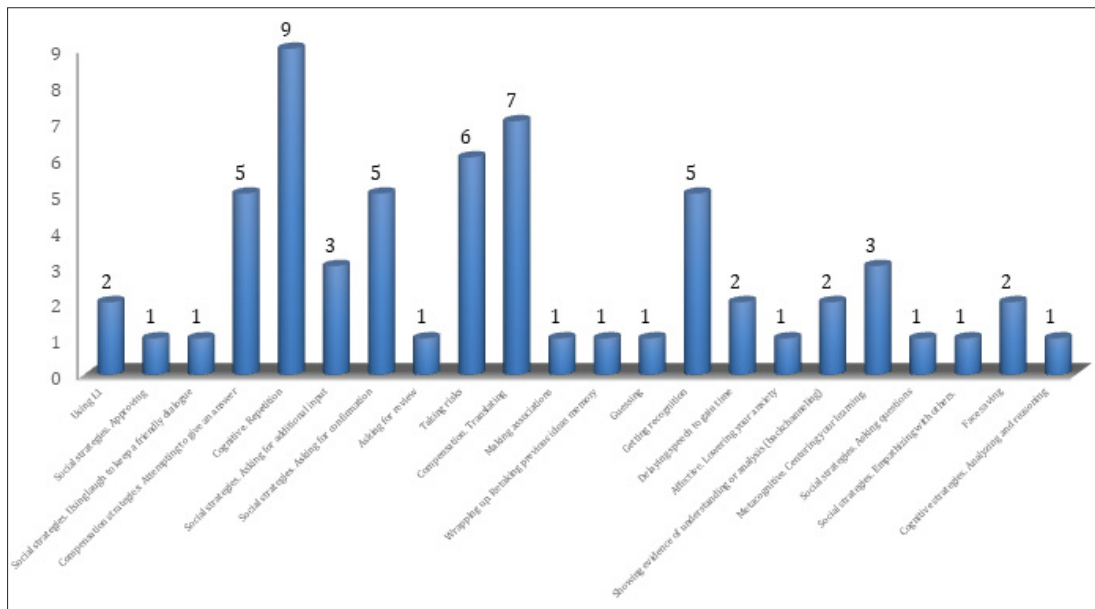VIS: Bueno, es que lo estoy asociando a otro contexto… Bueno la palabra roster significa

como el grupo de los crew…me imagino, no sé, aquí haciendo la asociación. (Observation, August 22nd 2014, turns 127-128)

Another strategy that is used by the VIS and which is exclusive in this particular situation is the fact that he uses his *visual residue* to make inferences, activating his memory or introducing previous knowledge to the current situation.

VIS: Bueno la referencia que yo tengo de cómo se escribe es porque antes yo tenía un residuo visual. Antes yo tenía un residuo visual y recuerdo haberla visto en algún momento en la televisión. (Observation, August 22nd 2014, turns 87-88)

LEARNING STRATEGIES ANALYSIS. SEPTEMBER 16TH 2014.

In the tutorial session of September 16th 2014, several learning strategies were registered. *Repetition, translating and taking risks* were the most common. Graph 2 shows these strategies distribution.

Graph 2. Distribution of the learning strategies used by a VIS on September 16th 2014

This time, a new topic for him was introduced: ¨First conditional¨. Therefore, the VIS attempted to answer the questions asked by the tutor based on the input given and taking risks. He analysed the structures and, instead of remaining silent, he tried to follow the exercise and ¨reproduce¨ examples *by wrapping up previous ideas*, previous knowledge or simply *guessing*. (At some point this might be the evidence of the use of metacognitive strategies, such as *monitoring and centering his learning*)

> VIS: ¿Cómo?
>
> T: I will give you the beginning ¨Af¨
>
> VIS: After.
>
> T: Good. Esos eran los time clauses.
>
> VIS: After era ¨siempre¨
>
> T: No, no era ¨siempre¨…
>
> VIS: A ver, ¨after¨, ¨after¨. ¿When era cuando, verdad? (Observation September 16th 2014. Turns 45-52)
>
> T: Hay una parte que va a llevar el ¨if¨ y otra parte que va a llevar el ¨will¨
>
> VIS: Will. (Observation September 16th 2014. Turns 77-78)

Social strategies are also present and one of them seems to be very particular in the case of a VIS: ¨*getting recognition*¨. He likes receiving appreciation when performing and interrupts in order to make the tutor know that he ¨knows¨ the answer, as in the following example:

> T: When, until (…)
>
> VIS: ehhh, esperate ahi. Ese día dimos 3 (…) el otro era (…) (Observation September 16th 2014. Turns 43-44)
>
> T: Ajá, por eso se llama conditional porque tu estas poniendo…

> VIS: (He interrupts) una condición. (Observation September 16th 2014. Turns 75-76)

This social strategy might be very connected to the affective scaffolding offered by the tutor and the motivation the student has. It shows the level of involvement of the *VIS*, the intention of being recognized as an active learner and his level of understanding.

LEARNING STRATEGIES ANALYSIS. OCTOBER 14TH 2014.

Graph 3 shows the learning strategies used by VIS in October 14th tutorial session.

In this tutorial session, the most used strategies were asking questions, attempting to answer and using *L1*. In addition, two new strategies appeared at this point of the session: *Using L2* and language mixing.

After a couple of months practicing English four hours per week, the VIS started attempting to answer questions by using *L2*. Although, he did not use it many times and there were few registers, his intention and effort were appreciated.

> VIS: On vacations … En vacaciones… On vacations I used to visit… ehhh… visit (student repeats the word visit) my family in Cartagena City. (Observation October 14th 2014. Turn 148)
>
> VIS: When I was… espérate… when I was a child I used to slide in my tricycle. (Observation October 14th 2014. Turn 336)

His metacognitive strategies were also more visible and he managed to express them openly. He was in fact reaffirming that he was aware of the importance of gaining vocabulary and shared his thoughts about it.

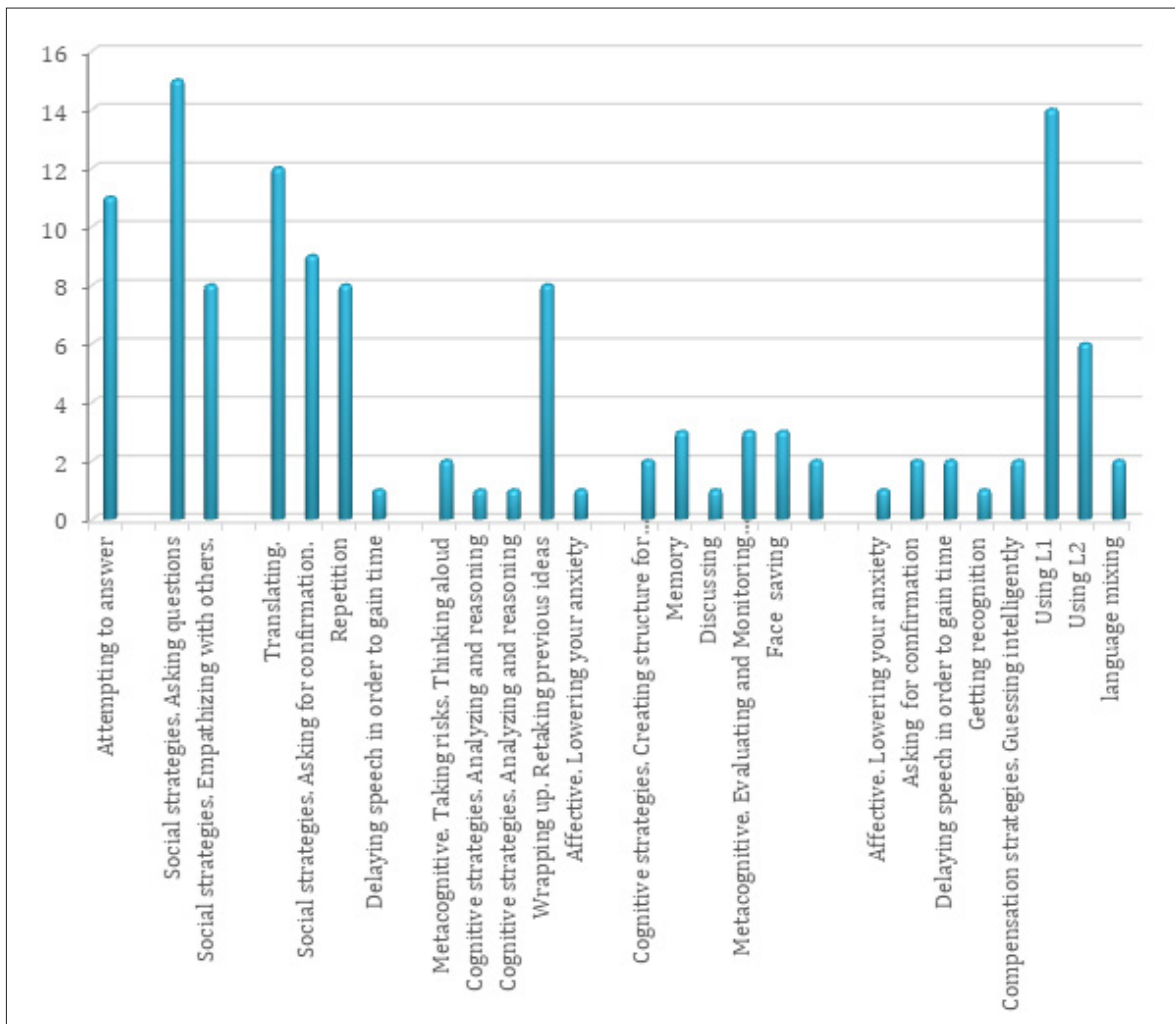T: When I was a child I used to play with my neighbors. Of course.

VIS: Nei?

T: Neighbors

VIS: Neighbors

T: We are going to listen. We are going to check the pronunciation.

VIS: Palabra que va para el diccionario. (Observation October 14th 2014. Turns 339-344).

Graph 3. Distribution of the learning strategies used by a VIS on October 14th 2014
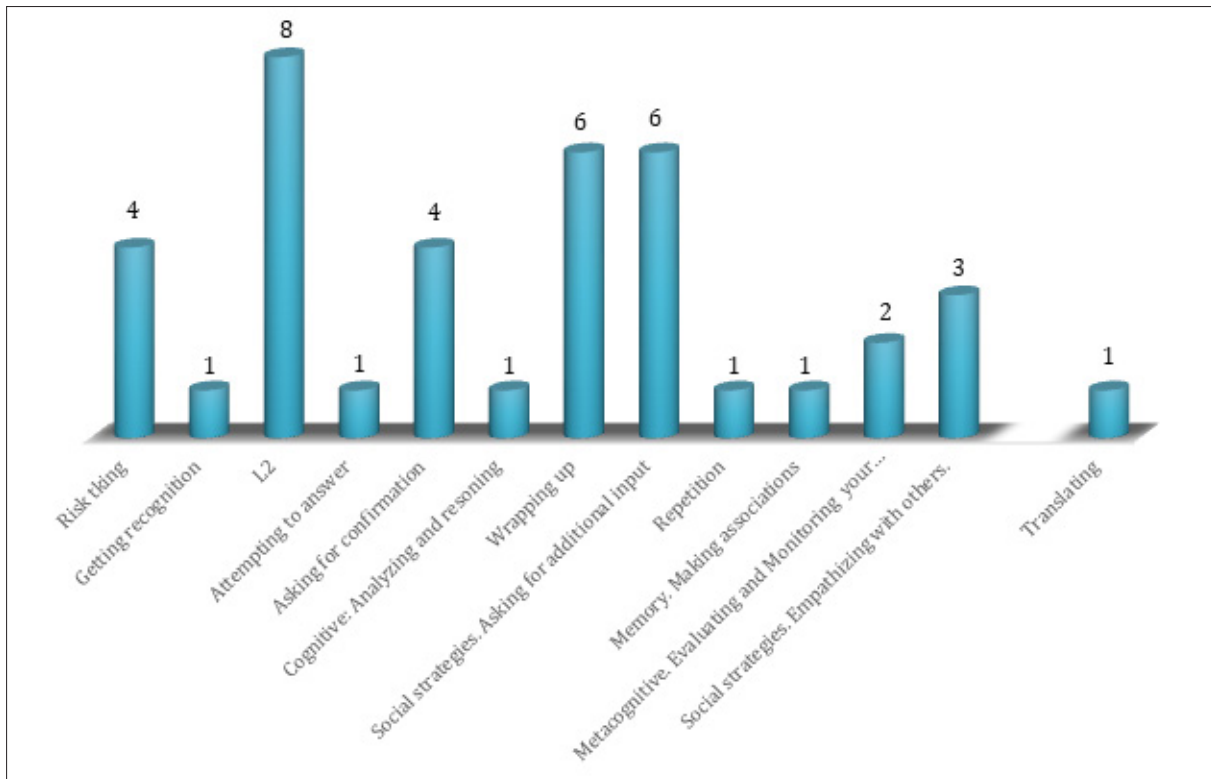
Learning strategies analysis. November 5th 2014.

In graph 4th the distribution of the learning strategies used by the VIS on November 5th will be presented. It is evident the improvement in using L2, asking for information and wrapping up in his learning process.

At the end of the semester, the VIS was able to use more L2 and asked for additional input. In this tutorial session, the class was focused on prac-ticing speaking for the interview he had got on Skype to evaluate his oral performance. Although he relied on his memory and continued repeating and translating the language into Spanish, there was evidence of self-confidence because at the beginning of the session he decided to open the conversation by saying hello by using a different expression:

> VIS: Hello tutor, how is it going? (Observation November 5th 2014. Turn 1)

Graph 4. Distribution of the learning strategies used by a VIS on November 5th 2014

His metacognitive strategies were also evident. He continued reaffirming that he was aware of the importance of improving his performance and made you know about his decision.

> VIS: Espera voy a recapitular. When I was a child I used to do several activities that I liked, liked, ¿Así era? Tengo que practicar mucho para que se oiga natural, no embolatado. (Observation November 5th 2014. Turn 29)

While using L2, the VIS tried to establish a kind of socio-affective link with the tutor by asking confirmation and also demonstrated that he was able to wrap up what he had learned so far by including self-correction in his oral production.

> VIS: When I was a teenager I used to go to the park to play with my family ( ) no with my friends ( ) voy bien? (Observation November 5th 2014. Turn 45)

> VIS: Recreo, jaja mentira, estoy bromeando. (Observation November 5th 2014. Turn 63)

Finally, in some way his progress was remarkable because his intention of empathizing with others, making jokes, introducing funny words or simply smiling or laughing during the sessions contributed to lowering his anxiety, sketching what he might like while learning and thus helping the tutor to discover the strategies that fit the best his learning process.

During the interviews some learning strategies used by the student were identified and at the same time, the intention of the interview was to confirm if he was conscious of using them and aware that these strategies were helping him to make progress in his tutorial session. One of these strategies was "memory". This seems to be developed as a compensation for his impairment, and

boosted by his context, due to the fact he works in a company where both languages are used daily.

> …como yo trabajo en (name of the restaurant), hay cosas en inglés que me las aprendo de memoria. Jejeje, bueno si, yo creo que tengo buena memoria. Yo sé por dónde va el bus cuando me voy solo y como le digo, en el trabajo yo pregunto mucho el significado de las palabras, por eso no se me olvida. (Interview #1)

Also, one of the compensation strategies used by him is "guessing intelligently" From his context, he drags vocabulary that consequently is analyzed by him (which denotes a cognitive strategy: Analyzing and reasoning) and then he makes associations in order to guess without any dictionary or explanation the meaning of the subject. For example:

> Lo asocio a cosas que me gustan, por ejemplo a mí me gusta el futbol, entonces siento que me aprendo más rápido…pues las palabras, como *stadium*, *Manchester city, London*…y en el trabajo pues hay como un spanglish ahí, esteee aparece el *manager* y me dice que me toca un *shift* en la mañana o por ejemplo los sabores del Macflury, como *cookies and cream*.

Among other strategies outlined by the student, he recognized that "repetition" helped him to deal pronunciation, reinforce his memory and confirm what he has heard.

> …repetir es una forma de que yo practique la pronunciación, porque si lo hago varias veces lo memorizo. Y también cuando digo que me recapitulen es para volver a escuchar la pronunciación o algo que se me haya escapado. (Interview # 2)

Finally, "translating" was another strategy identified during the interview. He considered translating as a way to monitor what he understood. He

also seemed to take advantage of cognates words with similar pronunciation in English and Spanish.

> A mí me gusta traducir y saber qué dice, como en las pistas que seguía sobre "tatoo" que era tatuaje y friend, en la historia de los amigos. Se me ocurre algo, podrías hacer preguntas que tengan opciones, así yo asocio más. (Interview # 2)

The fact that he identified the way he could perform the activity more accurately suggests that this student was aware of his learning process and used metacognitive strategies as well.

DISCUSSION

From the data obtained through the instruments such as observations and interviews, the following results appeared:

The different learning strategies used by the VIS were outlined in both the observations as well as the interviews. There was evidence of metacognition on his performance, what represents a remarkable aspect of his learning process.

The VIS expressed that he made conscious decisions regarding the way he dragged or memorized vocabulary from his context at work or simply by listening to music. He also emphasized on his preferences while receiving assistance, which helped the tutor make future decisions about the way she should prepare the lesson. The student stated for example, that he found teacher modelling very appropriate and suitable to his learning needs. There was a feeling of ¨trust¨ in what the tutor said and also he found an opportunity to confirm with her what he had listened or learned in other contexts and in the virtual course.

Through teacher modelling, the VIS found a closer interaction with the new vocabulary, he felt comfortable with the fact that he could ask for an immediate repetition of any expression and he also compared the accent and pronunciation of the native people who talked in the listening materials with his own pronunciation and the tutor's accent.

Although the limitations of the virtual environment for the VIS are substantial, there are materials available to develop the four skills, but they need some adaptation to the needs of this student. In this particular case, the VIS does not know braille. So, it is difficult to think about reading and writing activities that match his needs.

On the contrary, the speaking and listening activities were easier to adjust and the VIS was easily involved, since the tutor incorporated socio-affective strategies on her teaching and the VIS found them motivating when they were integrated and the tutor used simple language and polite intonation at the moment of giving input and requesting for answers.

Since the university is offering the English course virtually and the VIS requires face-to face sessions and special devices to accomplish the objectives, it is necessary to design an inclusive syllabus that includes activities oriented to cover the special needs of those individuals who are looking for opportunities to become part of the university population and consequently to have an active role in society.

Here is where Vygotsky's perspective regarding special education and inclusion is taken into consideration. His proposal for instruction was mainly to provide a quality of life that included appropriate and varied social interactions and relationships, adequate and timely methods of education that develop alternate, but corresponding frameworks for cultural growth (Gindis, 1990).

In summary, distance second language learning courses should be designed to provide interaction

that includes negotiation of meaning where comprehensible output results from input as Moore and Kearsley (1996) proposed. Based on these concepts of Lantolf and Thorne (2006), we might conclude that scaffolding should assist visually-impaired students and mediations can not only be related to material, but also symbolic so that these students as well as their teachers succeed in teaching and learning a second language.

Due to the fact of the university context in which it manages virtual learning environments and has to respond to cutting edge methodologies and devices, unfortunately, there are still very few adequate language learning materials available for the visually-impaired (Quatrataro & Paiano, 2011). The following step will be related to finding a way to balance an inclusive English virtual course, the socio-affective interaction and the development of the learning strategies of individuals with special needs.

CONCLUSION

This study allowed us to conclude that that there is a combination of cognitive, metacognitive and socioaffective strategies in the performance of the VIS. The cognitive strategies that the VIS used the most were memory, analyzing and reasoning, repetition, translating as well as the use of L1. Among the metacognitive strategies that he used, evaluating and monitoring his learning, taking risks and guessing intelligently were the most remarkable. Moreover, the socio-affective strategies that the VIS used during his sessions were asking for confirmation, getting recognition, asking questions and asking for additional input.

This group of learning strategies was not used separately, but simultaneously and concurrently. They have been boosted by the working context of the VIS, his motivation and interest on the language

as well as his lack of sight. In order to compensate the fact that he could not see the materials which were designed for sighted people, the VIS found support on his own learning monitoring process and requested for assistance while dealing with the topics that were new to him.

There are aspects of metacognition that can have an affective character (Efklides, 2006). Thus, there is theoretical basis for connecting metacognition with motivation and affect.

When executing a specific task, the VIS monitored his own learning which immediately triggered and controled his decisions while expressing in class what he really needed and requested from the syllabus, the course and the scaffolding he needed from the tutor.

Bandura (1986) considers that self-monitoring is clearly a metacognitive process through which students are aware of the ongoing thinking, feelings, emotions, or physiological states denoting effort exertion during task processing. This awareness provides the input for self-regulation of task processing and/or effort and affect.

This allows us to propose a tutorial process which helps visually impaired people to successfully deal with L2 learning. This tutorial help may increase the student self-esteem as well as their motivation to learn the target language. Besides, the use of effective learning and social strategies can be triggered.

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