COGNITIVE STYLES: AN APPROACH TO AUTONOMOUS LEARNING IN L2 ADULT STUDENTS

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Estilos cognitivos: un acercamiento al aprendizaje autónomo de estudiantes adultos de lengua extranjera

Tipo de artículo

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Eje temático

Análisis cognitivo

Resumen

El siguiente artículo resume los resultados de una investigación descriptivo-cualitativa sobre estilos cognitivos o de pensamiento, llevado a cabo con miembros del programa de extensión académica en la UPB, con el objetivo de describir los estilos de pensamiento de los estudiantes que les permitan reconocer y utilizar estrategias meta cognitivas para desarrollar un nivel consciente de responsabilidad y autonomía en el aprendizaje de una lengua extranjera. El marco teórico de este estudio se basa en conceptos tales como estilos cognitivos, estrategias meta cognitivas, aptitud, así como la autonomía y la responsabilidad en el aprendizaje. Los instrumentos diseñados para la recopilación de datos fueron un test sobre estilos cognitivos, en segundo lugar, un cuestionario semiestructurado con los siguientes ítems: proceso de toma de decisiones, la auto descripción como aprendices, las percepciones del estudiante sobre el papel del profesor, incluido el uso de estrategias meta cognitivas, tercero , una entrevista abierta con el objetivo de medir el impacto que tiene el concebir un proceso de aprendizaje de una lengua extranjera desde la perspectiva de los estilos de pensamiento. Los resultados mostraron la expectativa de los estudiantes para reconocer las capacidades humanas, la necesidad de adquirir la competencia estratégica, la necesidad real de participar abiertamente en la planificación de metas y objetivos, y en la auto-evaluación formativa del proceso de aprendizaje, así como el deseo de pasar de un proceso centrado en tareas, a un proceso centrado en la autonomía.

Abstract

The following article sums up the findings of a descriptive-qualitative research on cognitive styles carried out with members of the Academic Extension program at the UPB, aiming at describing the cognitive styles of students that enable them to recognize and use metacognitive strategies in order to develop a conscious level of autonomy and responsibility in learning a foreign language. This study was theoretically supported by concepts such as

cognitive styles, metacognitive strategies, aptitude in learning, as well as autonomy and responsibility. The instruments used in the data collection procedures were first a test on cognitive styles, second, a semi structured questionnaire on decision making process, self description as learners, student´s perceptions on the teacher´s role, including the use of metacognitive strategies, third, an open interview aiming at measuring the impact of being aware of learning a foreign language from the perspective of cognitive styles. Results showed students' inner expectations to recognize human abilities, the need to acquire strategic competence, the real need to openly participate in planning of goals and objectives, self assessment on formative learning process, as well as turning to be autonomous centered learners, rather that task oriented students.

Palabras clave

Estilos de pensamiento, estrategias meta cognitivas, aptitud, autonomía.

Key words

Cognitive styles, metacognitive strategies, aptitude, autonomy.

Datos de la investigación, a la experiencia o la tesis

Cognitive styles: an approach to autonomous learning in L2 adult students, un acercamiento al aprendizaje autónomo del inglés como segunda lengua, basado en el estilo de pensamiento de los estudiantes y el desarrollo de las estrategias meta cognitivas. Investigación en contexto educativo universitario con el apoyo del Centro de Lenguas de la UPB.

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"There is one basic assumption to the theory, namely, that the kinds of governments we have in the world are not merely arbitrary and perhaps random constructions, but rather in a certain sense are mirrors of the mind". (Robert Sternberg)

Introduction

The purpose of this qualitative study was to describe L2 students' cognitive styles, to enable them recognize and use metacognitive strategies in order to determine the level of autonomy in their process of learning a foreign language.

This study was the result of my observation of students' behavior, and spontaneous conversations with L2- level VIII -students, and some teachers from the Language Center for a period of two years of teaching experience at the Pontificia Bolivariana University of Medellin Colombia. It includes key concepts such as Language Aptitude, Cognitive styles, Metacognitive strategies, autonomy and responsibility. The Theoretical framework is strengthened by the ideas provided by, Skehan, P. (2001), Sternberg R. (2007), O'Malley, J.M, Chamot A. (1990) and Oxford, R. (2000).

The Bolivariana University is labeled among the twelve high quality educational institutions in the country, with a population of over 25.000 members, among Administrative staff, teachers, students and employees; located in Laureles, right at the heart of the city. It does count with four branches all over the country. Its aim is to promote integral formation, vocational guidance, the search for the truth, through a process of teaching, research and social commitment based on human and Christian values. The Participants were adult men and women between 19-45 years, from the Academic Extension Program at the UPB, trying to adopt English as a foreign language. Students belong to 3-6 social strata and come mostly from private schools where basic instruction on English is part of the curriculum. It is important to note that students do not belong to any of the undergraduate programs of the university.

In general, participants' particular interests were to improve their academic profile in order to exercise their profession in different scientific fields; some are lecturing at different Universities and many others-men and women-trying to acquire competence in English as a foreign language.

Three instruments were used to collect the data: A test on cognitive styles; a semi controlled questionnaire on autonomy, metacognitive strategies, and teacher's roles, and an open interview that served as student's feedback on the impact of such a process. Each instrument was applied after instructions were given to students about the purpose of the research and how profitable it

would be for them to participate freely and willingly in this study.

After the data were analyzed and systematized in established categories, these were interconnected and relevant interpretations were made, and so the outcome of the study showed how the cognitive or thinking styles may positively influence the process of learning a foreign language as students tended to be more aware of their own differences, they expected to be autonomous learners and creatively participate in planning strategically their own learning process.

The Problem

While teaching English as a foreign language to L2 students, I could observe their eagerness to learn English on their own with not much success due to difficulties in faster developing the identification of their needs and dealing effectively with their own learning process. I saw students responsibly trying to do for themselves more than the teachers do, thus trying to guess the role teachers should play in their learning process, as well as their own cooperative role.

In some cases, students' overdependence on teachers was a sign of inadequacy in learning, especially if teachers were not able to value their intellectual abilities to deal with the complexity of tasks in class as well as their readiness to propose plans, ideas and comments on what students believed were appropriate learning strategies and evaluation procedures. According to Scarle and Szabó (2000), responsible learners accept that individual efforts are essential to move on in learning, they are ready to join forces with teachers and peers to consciously monitor their own progress and use convenient chances for the benefit of all.

Teachers also may contribute to the development of students' level of responsibility by raising awareness on students learning; as Skehan (2001) says, explicit training on what constitutes the aptitude of students toward learning may, in turn, deserve an appreciation of underlying capacities, that is, student's cognitive styles. This theory reflects what was happening in my classroom settings, since teachers tend to classify students into effective and less effective learners, while focusing on the outcome rather than the process of learning.

I was determined to focus my research on this particular issue of students' cognitive styles and the use of metacognitive strategies to determine an approach to autonomous learning, thus promoting students to consciously participate in their own learning process. It is worthy to consistently deepen on the students' way of acting and performing, consequently, I was convinced that student's styles are ways of thinking that merely deserve apprehension.

Methodology

This study was developed under a qualitative-descriptive and explorative pattern following the

theory of cognitive styles of Sternberg (2007) and the theories already mentioned. The aim was to describe, analyze and explain the process of gaining awareness on cognitive styles through a study case, that is, a descriptive study with the intention of defining some characteristics of cognitive styles applied to L2 adult students.The following steps and specific stages were fulfilled in a period of six months, from the beginning of Level VII English course, up to the end of level VIII English course.

First of all, observation of students in class and personal interest awoke in me the real need to search for academic support in various theories. This led me to clearly identify the problem and state a hypothesis on cognitive styles, and state general and specific objectives.Second, preparations for the application of instruments were preceded by pilot tests with classmates, and assessment from experts who helped me to design the appropriate tools to gather the most relevant data from participants.

Third, I applied the first instrument to 5 students who participated in the exercise in order to diagnose students' cognitive styles through a comprehensible test; the data was immediately processed in order to establish the next possible type of instrument.Then, the second instrument was purposely designed to target the research question and find a direct answer to it. In this regard, a semi controlled questionnaire was quite useful and the outcome was immediately gathered and processed in charts for further consultation.

Once the data was collected, a third instrument was needed to define the impact of this study on each participant; an open interview, with guiding questions that allowed students to recall their own experiences as participants in the process: they put in writing their perceptions and own conclusions individually while observing their own performance in class, just at the end of the academic period.Outcomes were gathered and compared, and the final report was handed over to the faculty of education for further reference.

The following chart summarizes the type of instruments designed and their purpose:

| INSTRUMENT	PURPOSE
Test with multiple Choice (Characterization on Cognitive Styles)	To gather information related to cognitive styles of adult students from the extension program at the UPB.
Semi structured Questionnaire	To Know Students' aptitude on thinking styles regarding the decision making process, self description as learners, student's perceptions on teacher's role, and use of metacognitive strategies while solving complex tasks.

Open Interview – Students written feedback	To collect information concerning the impact of being aware of cognitive styles applied to the process of learning English as a foreign language.

In summary, the data was analyzed following these steps:

Step 1.   Workshops, application of instruments and gathering of data.

Step 2.   Processing the data in charts and setting up data into categories to have a global vision of evidence.

Step 3.   Comparison and triangulation of data, as well as keeping a written account on it.

Step 4.   Contrastive findings on data in light of the objectives.

Step 5.   Publication of the outcome for further reference.
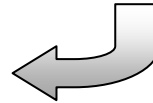
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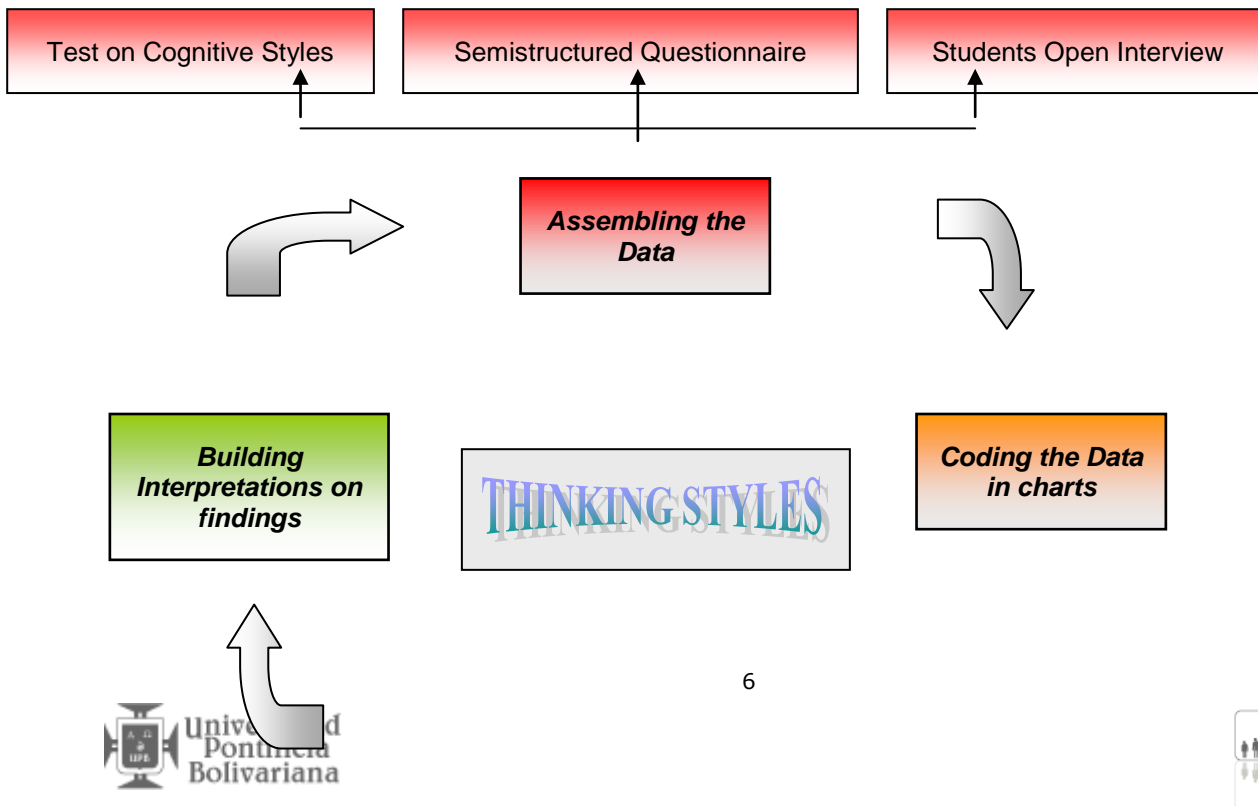
Triangulation of Data

1. Test on Cognitive or Thinking Styles

A graphic synopsis on Thinking Styles may help us recognize the main components of Sternberg's theory of Mental-Self government, in each and every participant.

*Theory of mental self-government (Sternberg,*1997)

Functions

Forms

Levels

Scopes

Leanings

A thinking style is characteristic of every person and is drew up of an element of the five aspects

What results in a very particular expression of thought, which allows us to face each learning experiences
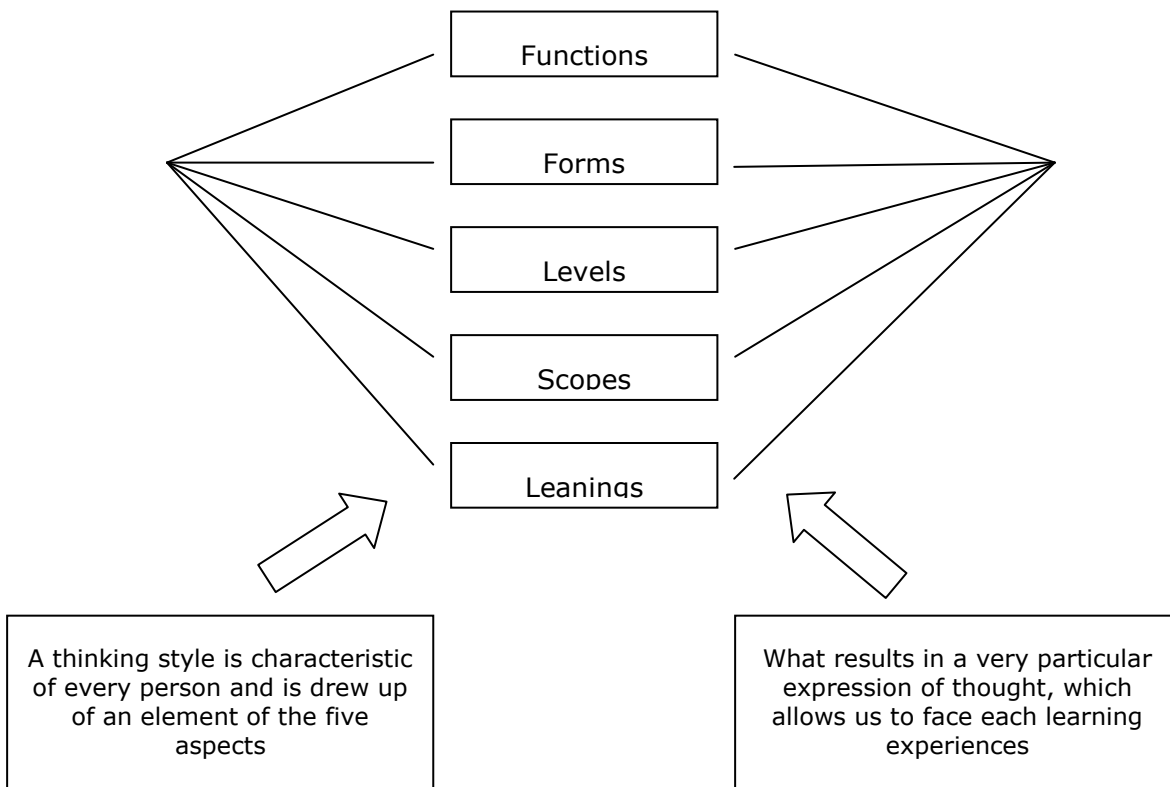
I followed this chart to characterize the 5 students and reflected the most common pattern of cognitive styles of students.

Functions of Thinking or Cognitive Styles: The first question had to do with preferences in making decisions. While observing the outcome of the test, the following styles were found to characterize students:

Legislative: Two students showed a tendency to follow constructive planning based activities, adapted pretty well to peers and teachers' expectations, and capacity to create their own way of doing things; they handled a variety of strategies that helped them master the learning process..

Executive: Only one student preferred to be guided throughout the process, and was good at following instructions; He/She liked structured problems and showed satisfaction out of getting done what was proposed in class.

Judicial: Two students reflected this style out of which they could analyze and evaluate things and ideas. They usually judged both, structure and content in class. They found success in giving opinions and evaluating plans.
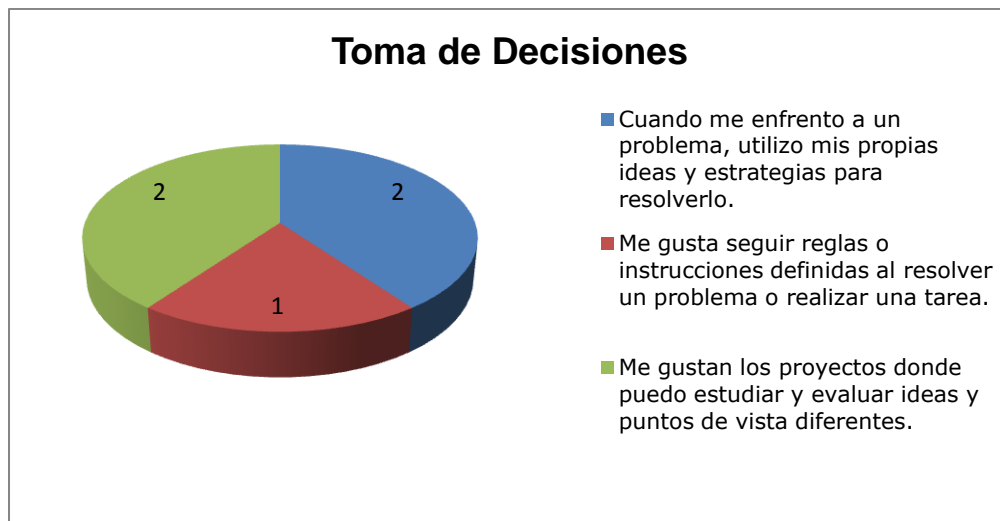

Figure 1. Function of styles

Forms of Cognitive Styles: The second question had to do with accomplishing tasks and objectives**.** The following data were found to characterize students.

Anarchic: Two students showed to disdain the class in place, they are students with capacity to do many things, at the same time, they were not constrained by boundaries; they showed the tendency to manage time on their own and considered all activities at the same level of importance.

Oligarchic: Only one student considered the need to be guided in setting priorities; and in time management when having many activities, though he/she has a spirit of sacrifice and struggles in the learning process.

Hierarchic: Two students showed the tendency to set priorities while having several goals to fulfill they allocated resources to each activity, concentrated on one activity at the time and divided tasks in various stages to achieve results.

Desarrollo de tareas

- Si tengo que hacer varias cosas importantes, sólo hago la más importante para mí.
- Normalmente sé qué cosas debo hacer, pero, a veces, me cuesta decidir en qué orden.
- Cuando empiezo algo, me gusta hacer una lista con las cosas que debo hacer y ordenarlas según su importancia.
- Cuando hay muchas cosas importantes que hacer, trato de hacer todas las que pueda en el tiempo disponible.
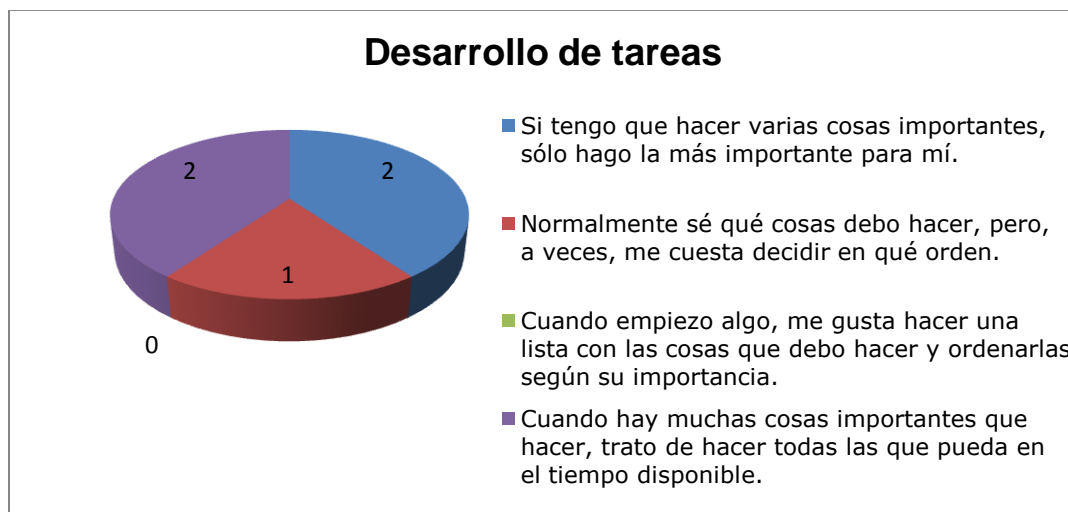
Figure 2. Accomplishment of tasks and objectives.

Levels of Cognitive Styles: This question had to do with a global or particular view of reality. The following were the data:

Global: Two students preferred to deal with relatively larger issues,

Local: Three students preferred to deal with details, surrounded by concrete ideas, so they rarely missed particularities.

In general, both levels complemented each other; sometimes global students were good at generating ideas, but t local students helped them to be more concrete and grounded in real communication.

Visión global de las cosas

- Me gusta trabajar en proyectos que se ocupan de cuestiones generales y que se enmarcan dentro del objetivo general y no me ocupo de detalles.
- Me gusta recopilar información detallada o específica para los proyectos en los que trabajo.

Figure 3. Levels of Thinking Styles

Scopes of Thinking Styles: The fourth question targets the capacity to work independently or able to cooperate in team work. The following was found:

External: the majority of students (four in total) tend to organize group work and dealt with the world of people, this goes along with the capacity to interact with peers, thus, reflecting interpersonal awareness; they were people oriented and extroverted students, contributing so much to class room environment.

Internal: only one student showed to preferably work alone, including a personal view on ideas, He/She was introverted and task oriented, and did not focus so much on interpersonal issues.

Indicador de independencia o socializacion del trabajo

- Me gustan los proyectos que puedo llevar cabo con independencia y me baso en mi propio criterio de la situación.
- En una discusión o en un informe, me gusta combinar mis propias ideas con las de otros.

Figure 4. Internal and external scope

Tendencies of Cognitive Styles: The fifth question had to do with the attitude toward change acceptance in the way things can be done and preserving patterns in learning. The following was found:

Liberal: Four students liked going beyond existing rules and procedures, thus maximizing unfamiliarity with life and work.

Conservative: Only one student preferred familiarity in life and work tended to avoid changing situations and adhered to existing rules.
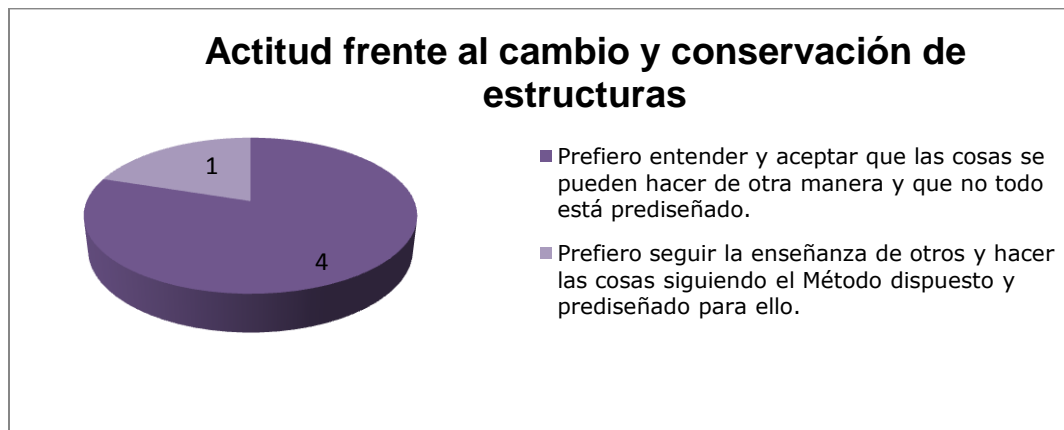

Figure 5. Liberal and Conservative Tendencies

2. Semi structured Questionnaire

Five questions helped students to journey along the following features: decision making process, self description as learners, student's perceptions on teacher's role, and use of metacognitive strategies while solving complex tasks.

Decision Making: In this regard, students expressed a variety of worries. They focused more on the contents of curriculum, whether the learning process changed their lives in any way and the functioning system of the language, still few students admitted the possibility to introduce changes in their learning process and how to learn a language more effectively.
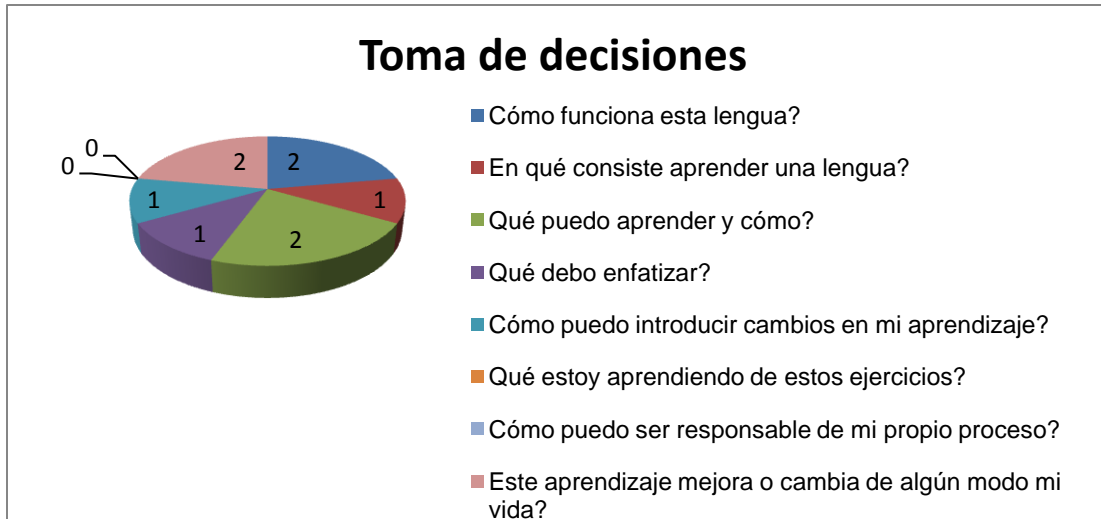
Toma de decisiones

- ■ Cómo funciona esta lengua?
- ■ En qué consiste aprender una lengua?
- ■ Qué puedo aprender y cómo?
- ■ Qué debo enfatizar?
- ■ Cómo puedo introducir cambios en mi aprendizaje?
- ■ Qué estoy aprendiendo de estos ejercicios?
- ■ Cómo puedo ser responsable de mi propio proceso?
- ■ Este aprendizaje mejora o cambia de algún modo mi vida?

Figure 6. Decision Making Ability of students regarding the learning process

<u>Self definition as learners</u>: All students had a particular view on themselves, the main self description included: students who obey and follow instructions, they worried about teachers' evaluation, students who responsibly accomplished what was agreed in the course; few students agreed to participate in negotiating the evaluation procedures and course contents. Two students perceived themselves as able to actively participate in class and able to self assess or evaluate their own learning without teachers' guidance.
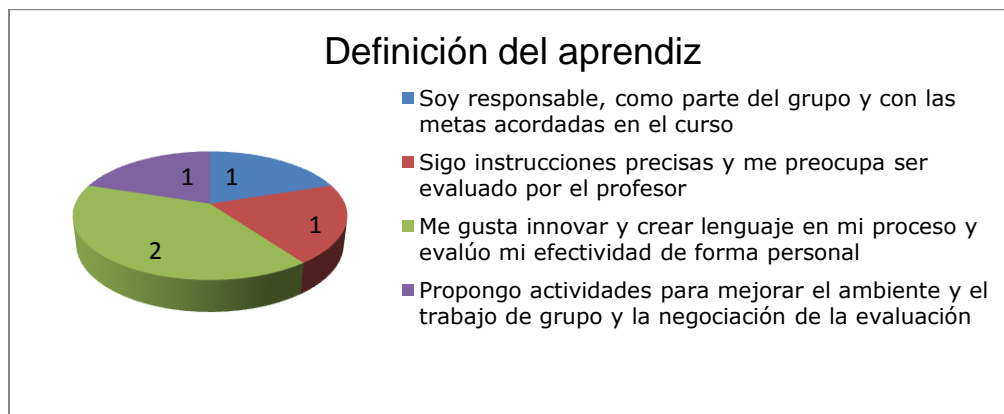

Definición del aprendiz

- ■ Soy responsable, como parte del grupo y con las metas acordadas en el curso
- ■ Sigo instrucciones precisas y me preocupa ser evaluado por el profesor
- ■ Me gusta innovar y crear lenguaje en mi proceso y evalúo mi efectividad de forma personal
- ■ Propongo actividades para mejorar el ambiente y el trabajo de grupo y la negociación de la evaluación

Figure 7. Self definition of students as learners

<u>Teacher's role</u>**:** Three students thought the teacher should be a promoter and maximizer of learning strategies. The teacher should facilitate the comprehension of contents and help students to tackle the complexity of tasks in class; only one student was certain the teacher was responsible for the guidance of learners throughout the development of class activities and learning process.
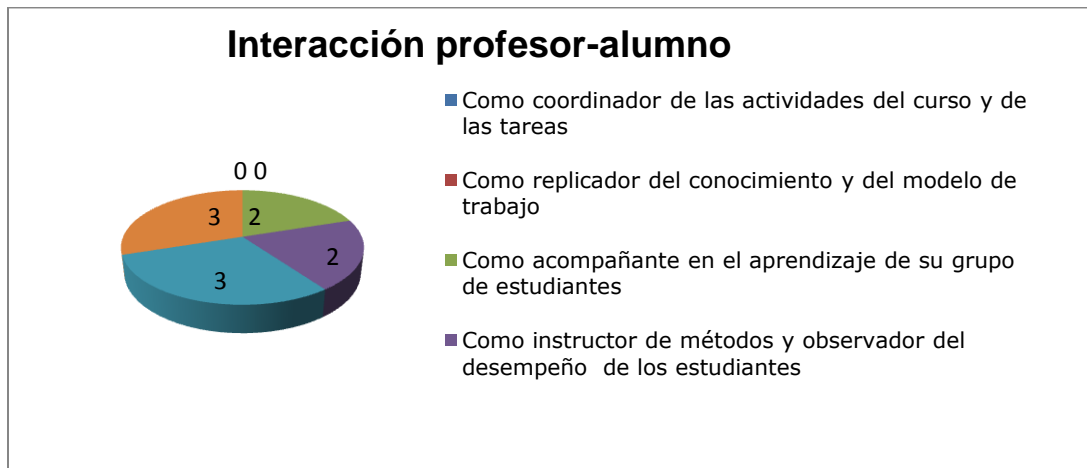

Figure 8. Teacher-students' interaction

<u>Use of Metacognitive Strategies to solve complex tasks</u>

The majority of students liked practicing the language in real situations, they started by understanding the cultural context in which the target language was spoken and preferred recreating real life situations in class.

It is worth mentioning that students liked planning their activities, set priorities in goals, identified specific objectives, and allocated available resources to the development of several tasks in class. On the other hand, some students preferred the use of synonyms, body language and had developed a great guessing capacity to the get meaning of vocabulary.
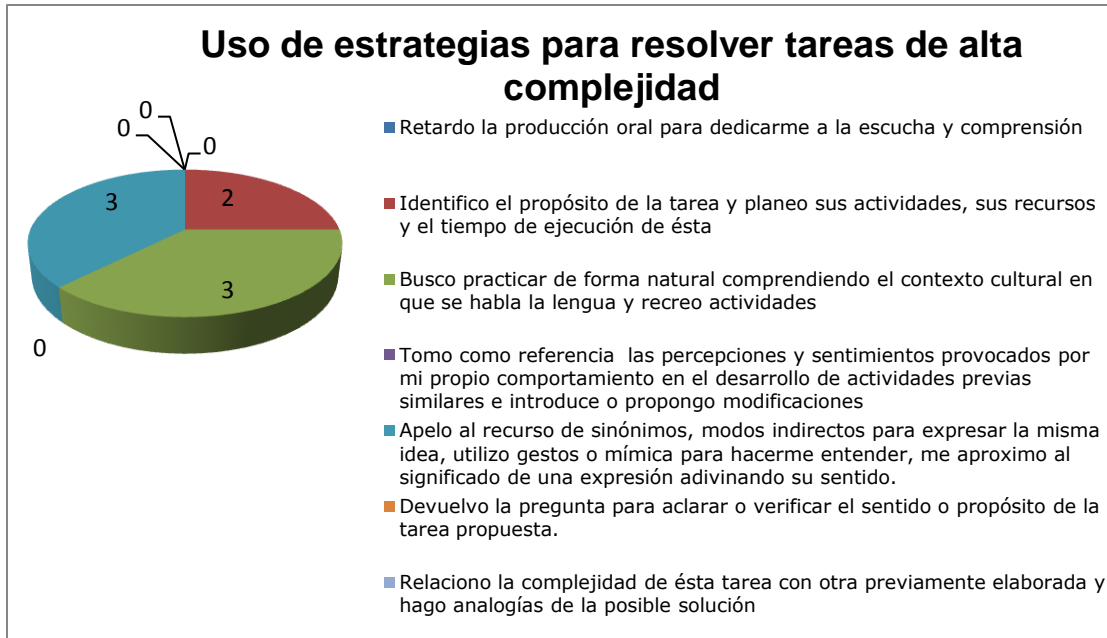
Uso de estrategias para resolver tareas de alta complejidad

- ■ Retardo la producción oral para dedicarme a la escucha y comprensión
- ■ Identifico el propósito de la tarea y planeo sus actividades, sus recursos y el tiempo de ejecución de ésta
- ■ Busco practicar de forma natural comprendiendo el contexto cultural en que se habla la lengua y recreo actividades
- ■ Tomo como referencia las percepciones y sentimientos provocados por mi propio comportamiento en el desarrollo de actividades previas similares e introduce o propongo modificaciones
- ■ Apelo al recurso de sinónimos, modos indirectos para expresar la misma idea, utilizo gestos o mímica para hacerme entender, me aproximo al significado de una expresión adivinando su sentido.
- ■ Devuelvo la pregunta para aclarar o verificar el sentido o propósito de la tarea propuesta.
- ■ Relaciono la complejidad de ésta tarea con otra previamente elaborada y hago analogías de la posible solución

Figure 9. Use of strategies to solve complex tasks

Emphasis on the Learning Process

Students were asked to give their opinion on what should be the priorities in a process of learning a foreign language; a variety of aspects were emphasized:

- All students proposed learning according to the order of acquisition-emphasizing on the receptive abilities and further development of productive abilities: listening, speaking, reading and writing.
- In regard to methodologies, students preferred the guidance of the teachers, but only to grasp clear instructions on tasks.
- In regard to various tasks, students showed preference for research projects, talking in the target language, as well as activities that involved oral abilities in class, such as presentations.
- Just few students preferred general reviews on grammar, and favour the correction of their own errors, and feedback on their performance.
- In regard to teachers' role in class, their desire to know effective learning strategies for autonomous work was quite clear.
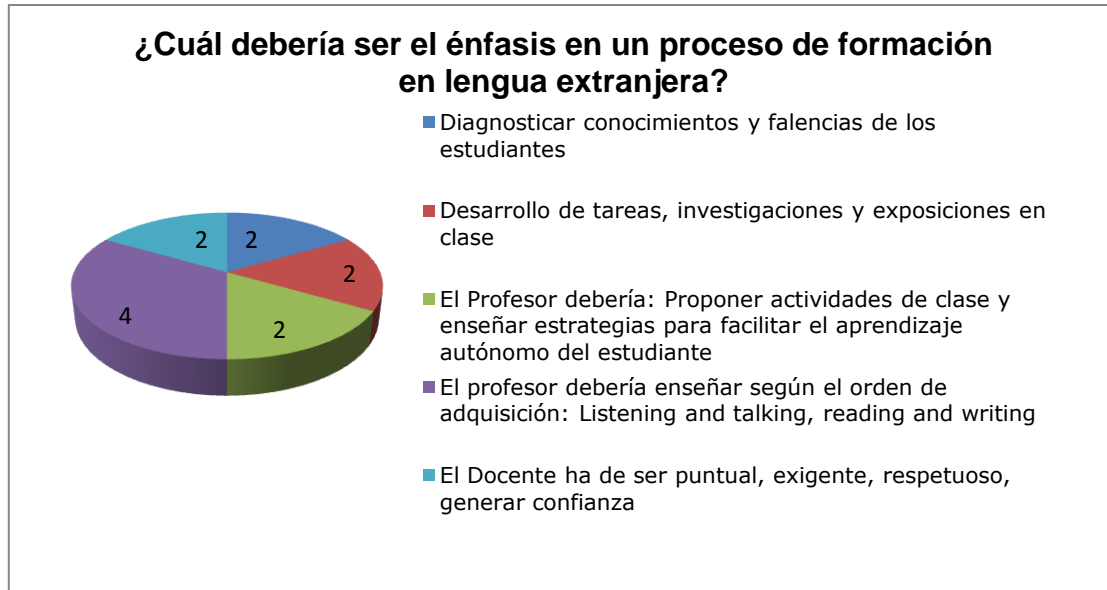
Figure 10. Students' opinion on the emphasis of a learning process

3. Triangulation of data with the third instrument

The third instrument was an open interview; participants were asked to answer the following question:

¿What is the impact of being aware of a learning process under the perspective of thinking styles?

This question guided the process of building interpretations on findings.

Awareness on students cognitive styles

Students from believed thinking styles were tools to increase consciousness on their own identity and way of thinking.

- Student 1 : "(…) *identificar capacidades y potenciarlas al máximo, así como definir mejor a las personas. En mi caso la aplicación de éstos tiene que ver más con procesos creativos*.
- Student 2: "(…) *hacer una reflexión del mismo y darme cuenta de qué forma pienso*."
- Student 3: "(…) *si conozco mi estilo de pensamiento puedo abordar con mucha más facilidad el aprendizaje de una lengua.*"
- Student 4: "(…) *me ha dado confianza y serenidad para entender que es un proceso que, con disciplina y dedicación, va dando evidentes resultados.*"
- Student 5: "(…) *un constante análisis y evaluación a mí misma y a las capacidades que*

tengo como persona y como estudiante de la lengua."

Legislative and Judicial students fit quite well in this perspective; they expressed an inner capacity to do things on their own, and were able to analyze their own way of thinking. Thinking styles contributed to students' identity to the self assessment process and the perception of abilities, thus guided students to recognize limitations as well as having control on their own skills.

Regarding language development, some students considered thinking styles as tools that allow them to make good progress.

- Student 1: "(…) *yo como diseñadora que he desarrollado en mi carrera procesos creativos de aprendizaje debo elegir herramientas que sean afines a mi formación académica. Simplemente son rutas que cada cual elige según sus capacidades. Pienso que el estudio de los estilos de pensamiento llevan a que cada vez el estudiante explore de forma mucho más autónoma el idioma."*
- Student 4: "(…) *ha incrementado mi interés y gusto por el aprendizaje del inglés."*
- Student 5: *"Los Estilos talleres de pensamiento han sido de gran ayuda para el aprendizaje de la lengua, debido a que me estoy realizando un constante análisis y evaluación a mí misma y a las capacidades que tengo como persona y como estudiante de la lengua."*

As shown above students did not clearly identify the difference between thinking styles and learning styles. By considering styles as routes that benefit the learning process, students expressed the real need of being aware of their own construct, rather than randomly build their identity on arbitrary ideas of the mind.

A fourth student expressed frustration due to the time consuming in learning without giving clear direction to her efforts, but after a conscious reflection on strategies she concluded *"Creo que, en esencia, encontraba serias dificultades en affective strategies, (…)",* and quoted the following advice*: " (…) hazte entender con toda confianza, pese a que la precisión falle un poco, de modo que das el paso al uso del lenguaje en la vida cotidiana.* (…) *me ha dado confianza y serenidad para entender que es un proceso que, con disciplina y dedicación, va dando evidentes resultados."*

When students understood the learning of a foreign language in terms of process they entered into a stage of confidence, lowering the anxiety that contributed positively to their affective schemata, thus assessing effectively their own performance.

Time management

Students differed on time management:

- Student 1: "(…) *el éxito radica en cada cual, según su iniciativa y el tiempo que dedique para aprender, investigar y practicar."*
- Student 3*: "Creo también que un idioma si se quiere aprender hay que dedicarle mucho tiempo fuera de la clase**. Esto hay que enfatizarlo mucho al estudiante. ¿Cómo esperar que con cuatro horas semanales dedicadas al aprendizaje, uno llegue a dominar una lengua*

extranjera?"
- Student 4: "(…) *sentía desconcierto, enojo, desesperanza, pues no entendía por qué, si yo estudiaba tanto, no lograba avanzar*."
- Student 5: "(…) *en cuanto a las tareas y compromisos pienso que deberían de trabajarse en clases debido a que los estudiantes muchas veces no cuentan con el tiempo suficiente en las casas para dedicárselo a las lenguas."*

Anarchic students showed a disorderly time management skill, while trying to accomplish many tasks at the same time, without considering the difference between tasks; the majority of oligarchic and hierarchic students, considered management of time as an indicator of their integral growth. Dealing with time may represent a challenge to teachers because time consuming activities may lower the rate of learning in classroom.

Students differed in considering time as part of homework responsibilities: some preferred class workshops, rather that home work but at the same time the students were aware of the fact that this responsibility had to do with allocating time to extracurricular activities, as a consequence, students dedicated time to learning out of class.

Planning of tasks

- Student 1: "*Muchas personas piensan que las tareas son simplemente desarrollar actividades de un texto guía, dejando a un lado que en el diario vivir están más del 90% de las tareas realmente efectivas para el aprendizaje del idioma."*
- *Student 2. Lo mismo sucede con las tareas, darles un orden de importancia me parece que es ser ordenado con lo que hago para que me facilite el trabajo de forma más rápida y eficiente."*

Task arrangement is part of students constrains up to the extent that teachers have to guide them throughout the fulfillment of various tasks. When introducing the thinking styles, the students recognized organization of tasks as profitable in terms of time gaining, it facilitates a global vision on duties, then a good percentage, realized that real life situations intrinsically prompt students to focus attention on learning, consecrate available time to tasks, and even consider that one of the changes they should introduce in their lives has to do with task planning.

Solving complex tasks through the use of metacognitive strategies

- Student 2**: "***Una de las estrategias que utilizo para resolver tareas complejas es que primero me gusta identificar un objetivo o un propósito porque a partir de este planeo,*

organizo, dirijo y controlo todo acerca la tarea en cuestión."
- *Student 2: "(…) igualmente el conocimiento y uso de estrategias es fundamental porque es la manera como puedo abordar mi aprendizaje de una manera más efectiva, qué métodos debo utilizar y cuáles no, en fin lo que está más de acuerdo con mi propia naturaleza y estilos de pensamiento. Las estrategias son realmente una guía para el aprendizaje de una lengua extranjera*."
- Student 5: "*(…) en cuanto al docente pienso que utiliza unas estrategias de aprendizaje muy buenas, puesto que siempre intenta resolvernos las dudas pero utilizando ejemplos de la vida cotidiana*."

Turning to cognition is quite difficult for students who were accustomed to the traditional way of learning; this implied mental changes and a strong decision to make things in a different way.

It was found that students turned to this kind of strategies to tackle different needs: student 2 would like to be more autonomous in His/Her entire learning process; all students would like to apply strategies to self direct their learning, in the same way, students used strategies to fill in gaps between institutional standards and personal expectations in learning; students appreciated teachers' guidance, but only if the teachers focus their attention on real life situations; finally, students were determined to give direction and have entire control over the achievement of tasks proposed in class and their personal goal settings.

The use of metacognitive strategies to solve complex tasks led a student to confirm the following evidence:

Student 1. "*Una metodología que para mí ha sido muy valiosa es la de comprender que el idioma tiene reglas y estas son muy diferentes a las del español, y cuando se cuestionan y se comparan es cuando se patina y se pierde el sentido de las cosas, sobre todo cuando apenas se está aprendiendo. Lo cual NO quiere decir que como estudiante este aprendiendo, como coloquialmente dicen por ahí: A la loca!!!, por el contrario he entendido que solamente en el uso es cuando realmente se entienden y se comprenden las reglas."*

This comment reflects the interest on a communicative approach, though the student is not aware of such an expression; understanding that a language is a system of rules is not enough for good performance, unless one more step is followed: that one of using the language for communication in real contexts. In fact, this situation was confirmed by the amount of students surveyed as they gave priority to understand the context in which the target language was spoken; after all, few students preferred reviews on grammar, due to the real urgency to use the language for communicative purposes.

Teacher's role and interaction with students

Here there is a significant and determining perception of students' autonomy. Let us see the student's opinions:

- Student 1: "(…) *esto me ha permitido establecer un mejor contacto con el profesor y no verlo como un juez sino por el contrario un apoyo, un guía. Además me ha brindado la oportunidad de proponer diferentes estrategias, que a modo personal me han servido lo suficiente para fomentar mis conocimientos sobre el inglés."*
- Student 2: "*Ser consciente de que quién está a cargo de mi formación está realizando una serie de actividades que realmente me aportan.   Para mi es valioso que mi profesor utilice método adecuados, que evalúe mi desempeño y que me enseñe estrategias para ser autónoma, que me indique el mejor camino para aprender y que además me indique mis errores cuando sea necesario."*
- Student 3: " (…) y *creo que el papel del profesor debe de ser más de un orientador y compañero a quien los estudiantes le tengan confianza y en quien puedan apoyarse plenamente en el aprendizaje, más que de un capataz a quien le temen. Como dice Pink Floyd: teacher leaves the kids alone."*

Autonomy and responsibility in students goes along with the role the teacher plays in the process; students are quite certain that teachers are in control of the class, but should be open to maximize learning strategies, one of the students, believe teachers are guides in the learning process, but the participants worried about interacting with teachers in terms of collaboration. According to participants, teachers were supposed to teach learning strategies, guide students to follow the best path of autonomous work, concerning the promotion of a good environment of mutual trust and confidence, so that the identity and dignity of students may be strengthened. On the other hand, some students were convinced teacher's role consist of reinforcing, correcting mistakes, and giving feedback to students in an attempt to give more room to learners to participate in class and efficaciously achieve goals.

Conclusions, Implications and Pedagogical Recommendations

At the beginning of this research project, my general objective was to analyze if awareness on L2 adult students cognitive styles enabled them to recognize metacognitive strategies, thus determining an approach to autonomous learning. This study has provided sufficient evidence on how thinking styles are of paramount importance to L2 learners.

The study helped students to fulfill a specific objective: to identify their cognitive styles, and understand the proportions along which people differ and how these attributes impact their behaviour.

Organizing the study around Sternberg's theory, was just as the author states, a way to systematically arrange our cognition and the world around us as well as a manner to make sense of it for individuals need to set priorities within the complexities of life, thus moving ahead as systems, so styles are systems operating within our system. Styles are cognitive oriented tools for research. (1997).Participants learned how to set goals hierarchically, they got enough motivation to understand their own way of doing things from a cognitive perspective, that is, they perceived, learnt and thought their own identity as learners.

One of the most challenging findings was the fundamental assumption and critique of aptitude. Students evidently have shown how they sometimes act under the influence of various traditional ways to learn a foreign language, but at the same time, they expressed their inner expectations, one of them was to recognize the structure of human abilities, strengths and weaknesses.

 As Skehan (2001) points out, when talking about aptitude, learning a foreign language has qualitative characteristics endowed with a set of cognitive abilities; if humans are able to learn a language, then it is of no use, trying to discriminate students from competent and less effective learners; perhaps as Sternberg says, " *If we don´t take styles into account, we risk sacrificing some of our best talent to our confused notions of what it means to be smart or a high achiever, when in fact some of the smartest people and potentially highest achievers may only lack the style that we just happen to prefer." (2007)*

A second specific objective to this study was to specify the use of metacognitive strategies to solve complex tasks in learning a foreign language. The study has proven that students had a strong desire to go beyond linguistic abilities; learners targeted strategic competence, it means they would like to be equipped with a set of metacognitive components or strategies in order to experience their executive, hierarchic, as well as legislative cognitive styles, which consist in that capacity to interpret discourse in situationally appropriate ways. This metacognitive competence is well structured by Bachman and Palmer (1996), they categorically state three main features: first, setting goals and objectives-(deciding what one is going to do), second, self assessment on formative learning-(taking stock of what is needed, what one has to work with, and how well one has done), third, planning tasks, resources, as well as schedules-(deciding how to use what one has).

Pedagogically speaking, teachers should focus on how to form this strategic knowledge and competence in students, so that learners acquire this ability to formulate a plan that involves priorities in learning, they may be able to solve compound tasks in complex life situations, and turn to be autonomous centered learners rather than task oriented students. O'Malley (1990) maintains that cognition or strategic processing has not yet been finicky discoursed in regard to language proficiency and language competence, thus leaving the role of learning strategies equivocal.

O'Malley reports: "*strategies more actively engage the person´s mental processes and should be*

more effective in supporting learning (…) if learning strategies are cognitive learn skills, then the process by which strategies are stored and retrieved for future use must be identified." (1995. P. 42)

A third specific objective to this study had to do with determining the level of autonomy and responsibility of the selected students. Puello (1977) states that autonomy implies deciding on our objectives, setting the contents and progressions, choosing methods and techniques to be used, monitoring procedures for acquisition, assessing what has been acquired and coming on with ways to improve.

Students have proved that the path leading to autonomy is quite challenging, still there are students over dependent on teachers guidance, our cultural background has fixed within us the assumption that teachers are absolutely necessary to shape our mental structure and behavior; however, once students learnt about thinking styles, they expressed positive reflections on their eclectic capacity to accept that things can be done differently, they were quite aware that personality traits may hinder their performance, nevertheless, they expressed intrinsic motivation to responsibly and independently participate in the decision making process of curriculum design, evaluation and class activities.

A pedagogical challenge for teachers consists in transferring roles, giving more room to learners to have more control over their own assessment of needs and application of resources. As Scarle and Szabó (2000) state: "*Throughout the development process, and especially in the teaching of learning strategies, we recommend that students are taught skills and attitude explicitly." This is because we believed that awareness and reflection are essential for the development of responsibility. Explicit training may also encourage a collaborative spirit between the teacher and the learner. Finally, in the case of learning strategies, the conscious realization of what strategies are applied in a given activity may increase the chances of transfer to other tasks. (2000, p. 10)*

This study is a call to explore and take responsibility for our own teaching, by setting personal connections with our profession, paying more attention to process rather than the outcome, it is in summary, an autonomous and learner centered approach.

Further implications of this study might be connected with the development of theories that could be applied to the process of learning a foreign language. It is a matter of ethics to help students recognize their own thinking styles. As Rebecca Oxford (1990) states, teaching metacognitive strategies is still in because they are tools for active, self-directed involvement, which is essential for developing communicative competence.

With this in mind, I would like to suggest that language teaching institutions should conversely establish a kind of fraternal encounters with teachers, aiming at defining common perspectives on action research, thus providing teachers with opportunities to explore their class room activities.

Chinn and Brewer (1993) in Rodriguez (1999) propose that teachers should treat students as informants of their previous knowledge, to accept how students look at them with a sense of correctedness as well as the attitude of deposing some of their power on students or class participants, consequently, centering teaching and learning on students. They also state that teachers should assume the task of building ontological concepts, that means, accepting learners'

thinking styles in an attempt to promote a new culture of learning.
 It happens, so often, that instructional models and institutional policies engage teachers in some kind of *habitus*: (how culture reproduces itself by framing teachers into an environment of propaganda on methods of teaching), rather than a *project*: (how culture is transformed as the individual changes as a result of teaching and learning and due to the consequences of integral formation and social demands).

This is a call to teachers, and authorities of language education institutions to develop strategies of scientific knowledge, that means, If implementation of macro strategies is the new tendency in today' s teaching, then all teachers should change from within ; as Johnson, (1992a), Nunan (1992b) and Woods (1993) in Serna and Bedoya (2006) suggest, these issues are a real call to research on a hermeneutic paradigm (to focus on what people think and how they understand the world in which they live), to think teaching in broad categories and understand how teachers make "preactive decisions" (those made prior to teaching) and "interactive decisions"(those made while teaching).
Last but not the least, teachers should enrich their daily class room activities in order to gain objectivity and be able to assess what they really teach and recognize that teaching also consists in directing their efforts toward maximizing students responsibility, after all, students are able to plan, organize and self assess their own process of learning.

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