Call: an alternative to fit learning styles

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" Everybody deserves to be given the chance to learn;
and every human being is able to learn,
if the tools for success are provided"
Gabriel Diaz Maggioly

The introduction of multimedia in computers has had a great impact on education due to the multi-sensory exposure student's benefit from and the wide range of learning styles that it is suggested to cover. This article is intended to relate the different computer program types and how they may fit students learning styles in a language setting. Readers are expected to come out with their own conclusions after being involved in some of the examples provided. It is addressed to both reluctant teachers to include technology, mainly computers as a part of their curriculum and those who are already using it.

Computers have been introduced as an innovative and valuable resource in education. Working with them diverges from our common experience of language learning that in most cases was just limited to the "talk-and chalk" style. This in-construction approach of including technology, mainly computers, for language learning purposes is what researchers have named CALL: Computer Assisted Language Learning. It offers an umbrella of possibilities for both educators and students. Educators use the different facilities computers offer as pedagogical mediators, thus, coping with the wide range of learning styles found in a class (multimedia) ,exposing students to authentic language (Internet) and promoting autonomous learning (software and programs) are some advantages provided. The multi-sensory exposure generated by the introduction of multimedia gets students more easily involved, enhancing thus learning. In this respect Prieto C, states that "multimedia is an interactive system that makes it possible to surf in

different ways, create learning settings bringing the chance to generate knowledge" (Prieto C, 1995)

This essay is intended to relate the different computer program types and how they may fit students learning styles in a language setting. It is addressed to both, reluctant teachers to include technology as a part of their curriculum and to those who are already using it. Before going into more details around this relationship, it is necessary to make some considerations about learning styles and CALL.

THEORY

Learning styles are defined as "characteristic cognitive, affective and physiological behaviors that serve as relatively stable indicators of how learners perceive, interact with and respond to learning environments" that is to say the approaches students use to learn, in this case a new language. On this matter Rebecca Oxford (1992) stated that "no two students learn in the same manner" and that is what distinguishes a learning style from the other. The way the information is got and processed into the brain is what determines the learning style. Such process is described as follows:

First, students are exposed to input, which is perceived into two qualities: concrete and abstract. Concrete deals with information that is registered through the five senses. The abstract has to do with intellect and imagination (intuition). After this stage is completed, human beings order the information. Sequential and random ordering are the two ways in which this is achieved. The first one implies that steps are followed as well as a logical train of thought. The second one suggests that the information is presented in chunks, which are not necessarily in order. After ordering the input we come to an understanding of the situation in an analytical or a global way.

Analytical-like learners opposite to global ones tend to remember specific facts about things. They are mostly detail-oriented. After completing this process, it could be expected that the input students receive will be easily stored into their brains, if at least these two conditions are accomplished: if the input they are exposed to is meaningful to them and if the way it is presented matches to the sensory preference.

SENSORY PREFERENCES

They refer to "the physical perceptual learning channels that the student is the most comfortable with"(Oxford,1990). She distinguishes three types of sensory preferences. Visual, auditory and Hands on.

Visual: in this category students are portrayed as the ones who learn best through their eyes. Activities where color illustrations, pictures flash cards and reading assignments are included, stimulate learning in this type of learners.

Auditory students on the contrary learn by hearing and perform better in activities where conference, role- plays dialogues and the like are included.

The third category corresponds to the combination of tactile or touch-oriented and kinesthetic or movement-oriented students. It is what Rebecca Oxford has called "hands-on" student. For this kind of student it is a necessity to make physical contact with the things that they are learning. They enjoy activities where project work, collages and movement are at the outmost.

At this stage we have two types of learners analytical and global ones. If the two methods of perceiving information and the two methods of ordering information are put together, four other learning styles will come out of this combination. Concrete sequential, Abstract sequential, abstract random, concrete random.

Computer Assisted Language Learning

Most teachers have had the wrong belief that the inclusion of computers in language settings may generate situations such as: technology taking over human beings, loss of human interaction or the formation of mechanized students just able to respond what they were "programmed "for. The new trends in education, especially in CALL have shown that this will never happen. Teachers implementing the CALL approach are expected to be much more involved in teaching than any other educator. They must be ready to cater for individual student's needs and lacks , expose students to material that fit their learning styles, provide topics that are meaningful to the

students, promote interaction and guide students etc. Learners are expected to be more autonomous, they must make decisions on the kind of information they get and how to use it to get a task achieved. Learning becomes more learner-centered, immediate feedback is given and so learning from errors is encouraged. " In fact teacher's and students' roles are being transformed. More and more teachers are becoming material designers, and creators, guides and researchers. In turn learners are more autonomous and aware of their own learning process". (Marín, 2001)

The computer is seen as a tool that allows students to manipulate the information no matter the way it is presented. For instance, when working with word processors a number of tasks that facilitate learning can be performed by students. "Computers are different from other media in that they facilitate tasks such as editing, deleting , inserting , and moving elements or blocks of text. (Hardisty &Windeatt, 1992)

Nowadays, language teachers have different software choices when implementing computers in their classrooms. They include courseware, where authoring programs and what I would dare to call non-flexible programs have been designed for language learning.

Commercially available software, like word processors, adventure games, simulators which are non-specifically designed for language learning but which offer an umbrella of possibilities to be used in it. Internet, which has become the principal medium by which students can communicate with other at a distance (by e- mail or by participating in a discussion forum etc). It also allows them to participate in many authentic language tasks. Hubbard (1987) suggests that before deciding on the kind of software that it is going to be implemented in class some features should be kept in mind. " A communicative program…

1. … provides meaningful communicative interaction between the learner and the computer.
2. …provides comprehensible input at a level just beyond that currently acquired by the learner
3. … promotes an positive self-image in the learner.
4. …motivates the learner to use the software.
5. …motivates the learner to learn the language

6. ...provides a challenge but does not produce frustration or anxiety .
7. ... does not include overt error correction
8. ...allows the learner to produce comprehensible input
9. ...acts effectively as a catalyst to promote learner-learner interaction in the target language"

HYPOTHESIS

After reviewing these considerations a chart where the different kinds of software and the types of programs that they offer are matched with the learning styles, is shown. This chart has been made having in mind the specific features that each learning style has, the language skills and the linguistic skills that are promoted in each type of program. Internet has been included as a separate program type since the original idea of its use was to transmit information

COURSEWARE PROGRAM TYPES	*LEARNING STYLES*					
	Analytic	Global	Concrete sequential	Abstract sequential	Abstract Random	Concrete Random
Gap filling	♦		♦		♦	
Multiple Choice	♦		♦		♦	
Sequencing	♦		♦		♦	
Matching	♦		♦		♦	
Word-spin	♦		♦		♦	
Mind-word	♦		♦		♦	
Scrabble	♦		♦		♦	
COMMERCIAL SOFTWARE						
Games	♦	♦	♦	♦	♦	♦
Simulations		♦		♦		♦
Word processing	♦		♦	♦		
INTERNET			♦	♦	♦	♦
Web projects	♦	♦	♦	♦	♦	♦
Pen-pals	♦	♦	♦	♦	♦	♦
Web-page design	♦	♦	♦	♦	♦	♦

ANALYSIS

As it is clearly shown in the chart the types of programs used in courseware are addressed to detailed-oriented students who are good at remembering specific things, working step-by-step, and valuing facts over feelings. It is necessary to mention that with the introduction of multimedia in computers these kinds of programs are more appealing to all kinds of learners, since a number of tasks can be performed by them. They can click on pictures and call up the name of the object they see, they can speak in the microphone and then hear what has been said.(For further discussion see CLC handbook: Edusoft) In this respect Aparicio de Escorcia et.al (1992) state that " ...specially with multimedia where the integration of sound, moving video, graphics and text seem to provide more interactive opportunities for learning. Consequently these types of activities recreated by the computer could develop different learning styles".

Commercial software favors students who like cooperating in group efforts, who are good at reading between the lines, and doing different things at the same time. With the implementation of this type of software good team work could be achieved through the integration of detailed-oriented and global learners. For instance, if two or more students sit at the same computer, then they can generate a fair amount of authentic communication while discussing the answers together.

Working with Internet favors all kinds of learners since it offers a wide range of possibilities to chose from. Web projects, web page design pen pals are activities that could be promoted. I am sure that I do not need to say much about the Internet as a provider of information that can be used in projects and cooperative work. At early stages the teacher's role will be that of an instructor who will show them the path to follow and the way some tasks should be developed step by step. At later stages the teacher has minimal intervention and is seen as a guide.

RESEARCH

The implementation and use of different software in a language setting becomes an important factor to be considered by teachers as a tool that help students to fit learning styles. Indeed recent research is

supportive of such hypothesis. Cárdenas et al (2000) reported a research project conducted at a higher education institution in Neiva – Huila: which examined the performance of 22 students after being exposed to 80 hours of instruction. The use of computers, the combination of software and Internet as well as the outcomes of the inventory of learning styles allowed the researchers to design a proposal that fit students' expectations and enhanced learning abilities. The findings of the project showed that students' motivation increased when different software was implemented "students communicative competence is raised through an effective combination of teachers direct instruction and self-access when working with computers" (Càrdenas, et.al).

Learning took place since the input was meaningful to them and the ways it was presented matched each individual sensory preference. It also provided the researchers with a highly motivating experience too: "Working with computers in our language setting was a good opportunity for us to reflect on the many implications there might be using technology in the language teaching process". (Cárdenas, et al. 2001)

As a conclusion it is possible to say that the combination of all these kinds of software and applications offer a wide range of possibilities to be adapted and used in language learning. Subsequently, many students will benefit from the same material, if it is presented in different ways and if at least one of those ways matches their individual sensory preference. Based on a needs analysis study which should include the outcomes of "why, who ,how what, where and when a course will take place" (Hutchinson and Waters,1987) the teacher's role will be that of an organizer, guide and prompter who will determine what material best suits the student's needs, lacks and learning styles and the way it is presented. There may be occasions when the computer is the most suitable tool and for the students the most enjoyable way to get the job done. Anyway, what the computer can do is only important when the interaction between the teacher and student is considered. Hubbard (1987) states, "CALL should be properly viewed not as computers teaching people but as people teaching people through the medium of computers to enhance, not to degrade, the learning environment".

THE AUTHOR

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