Learning languages in partnership with information communication technology tools

ABSTRACT:

This article focuses on the teaching and learning of languages using multimedia tools to engage students and improve outcomes. Information Communication Tools are an increasingly important part of the learning environment in the Northern Territory schools. Crucial issues being addressed include how they can enhance teaching and learning practices and how teachers can best be equipped with the knowledge and skills for incorporating them into the pedagogic processes. This article focuses on the promise of technology as a powerful tool for languages instruction and the challenges in its instructional applications.

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Educators' terms of references are stated in the following documents which clearly define the current educational climate.

> *"21st century education integrates technologies, engaging students in ways not previously possible, creating new learning and teaching possibilities, enhancing achievement and extending interactions with local and global communities."*
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> MCEETYA (2005) Contemporary Learning - Learning in an Online World.
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> *"We live in times of rapid change. Information and communication technologies are accelerating the movement of people and ideas across the globe… 21st century education needs to engage with, and be responsive to, this changing world. It needs to develop in learners the knowledge, understanding and attributes necessary for successful participation and engagement within and across local, regional and global communities, and in all spheres of activity."*
>
> MCEETYA (2005) National Plan for Languages Education in Australian Schools 2005–2008.

The above quotes illustrate that the world of language teaching and learning is dynamic. As educators we need to recognise and integrate these changes in pedagogy. New theories are drawn from other disciplines and soon find their ways into language teaching programming. This phenomenon constantly impacts on renewing and refining the methodology. It is not clear if ICT tools have had an effect on methodology or that theories have facilitated the introduction of ICT tools in language teaching. The fact remains that we have seen the use of languages software and Internet which have given an impetus to this methodology. This appears to be ideal in the languages teaching and learning context. ICT tools are not the only strategy to be used when teaching languages but this phenomenon has come about in an appropriate time to explore its uses, discuss the advantages and disadvantages and improve the use in terms of educational outcomes.

Technology and Second Language Learners

The role of technology as a resource for instruction of languages learner is increasing as educators recognize its ability to create both independent and collaborative learning environments in which students can acquire and practice a new language.

Through the use of the Internet, word processors, multimedia, hypermedia, drill and practice programs, students can engage in individualized instruction designed to meet their specific needs and participate in cooperative projects that foster communication with peers in their classrooms and throughout the global community.

An examination of the important characteristics and benefits of a technology-enriched curriculum for second language learners underscores the pivotal role technology can play in second language teaching. Research in second language acquisition (Krashen, 1989) has clearly suggested the need of comprehensible input in order for second language learning to take place. Perhaps the single most important role of the second language teacher is to act as a facilitator in providing this intensive input. Traditionally, teachers have relied heavily on the use of pictures, realia (real objects), and gestures to convey meaning to learners. The computer with its Internet and hypermedia capabilities is a powerful addition to second language teachers' resources. Computers utilize a multi-sensory collection of text, sound, pictures, video, animation and hypermedia to provide meaningful contexts to facilitate comprehension. Technology is equally important in the *"sheltered, academic-area classrooms where its ability to provide comprehensible input serves as a scaffold to support students as they study academically challenging subject matter."* (Bruner, 1986)

While anxiety and lack of motivation can impede language learning by acting as filters blocking comprehension (Krashen, 1989), technology can assist teachers in creating a supportive affective environment in the classroom. The interactive game features of computer programs and the exploratory quality of the Internet motivate students to use their second language. The untiring, non-judgmental nature of the computer makes it an ideal tool to help second language learners feel sufficiently secure to make and correct their own errors without embarrassment or anxiety.

Technology can provide students with language experiences as they move through the various stages of language acquisition. Beginning with the use of multimedia to provide comprehensible input in the pre-production or silent period, students progress to programs that require limited responses, and in the more advanced stages and use their second language as they manipulate technology to solve a problem or complete a task.

The constructivist learning methodology puts forward that knowledge is:

- physically constructed by learners who are involved in active learning
- symbolically constructed by learners who are making their own representations of action
- socially constructed by learners who convey their meaning making to others
- theoretically constructed by learners who try to explain things they do not completely understand.

Much of this approach seems consistent with the description of classroom activities reported in a major research study titled, *A Place Called school conducted by Goodlad* (1984). He found that most of the time, most of the teachers do all the talking. Students explained that physical education and arts were their most interesting classes because they actually got to do something. They were active participants in learning rather than passive recipients of information. This is the primary message of constructivism; students who are engaged in active learning are making their own meaning and constructing their own knowledge in the process.

Benefits of using multimedia tools in learning/teaching languages

Some software is designed for the learners' needs. It is flexible and adapted to needs, interactive and allows the learner to control and guide own learning. Students choose the focus, follow exercises and repeat them. Learners can refer to the dictionary in both English and the target language. This interaction allows the learner to develop cortical thinking and be in control of his own development. He becomes responsible for his own actions. He perceives this pathway as his very own exploration and is therefore actively involved. The integration of various codes create the conditions for optimal learning, after all we remember 10% of what we do, 20% of what we hear and 50% of what we see and hear combined, which gives us a total of 80%. As Stephen Krashen input hypothesis has suggested students "acquire language automatically as a result of understanding messages.

The learner gets closer to becoming auto formative because he gets constructive feedback. Some software not only verifies whether the answer is right or wrong but rewards the students with appropriate messages. This becomes very enjoyable for the learner. The feedback is not personal and the learner does not fear making mistakes. CDRom databases offer various advantages over Internet sites: They give the learner variety to choose pathways without the risk of getting lost in the myriads of distracting links. They have a faster change of screens as one does not need to wait for links to appear.

Multimedia and language development

Every second language learner processes information in different ways. Teachers *cannot* adapt the lesson to accommodate all the various students' learning styles: visual, audio, kinaesthetic etc. The multimedia program allows more use of all senses, greater involvement and is more efficient. This method encourages curiosity through various codes.

Importance of Interface

The interface has to be simple and require zero learning time, with few graphics and sounds which could distract the student from the leading object It has to provide accurate feedback.

Some Perceived Challenges

- The rapid change of technology which requires more powerful hardware for the newer versions of CD ROMs. This rapid change can dampen the enthusiasm of even the most technocrat teachers
- Hardware becomes obsolete very quickly. New investments are required: flash screens, DVD readers, more capable sound video cards
- Difficult to organise coherent software with the learned pathway. Need commitment and skills from teacher
- Computers are more complicated than printed books. There are technical problems. Teachers and students are dependent on technicians to solve problems and adapt to new roles
- Often these databases respond with a wrong answer just by a slight different letter or accent. This response from the results can demoralise the user as most of the answer is correct but it gives negative feedback
- Too many options can prove to be daunting for less autonomous students.
- Difficult for the teacher to assess students in points gained etc.
- Most of the software is designed for self learning. It does not encourage social interaction.
- Often the class has to transfer to the computer lab where there is a bank of computers accessible. This action interrupts the flow of the lesson where students will be involved on individual practise.

Role of teacher

Computer technology signals the revolution of the new ways of delivering educational material. The databases and Internet have a non linear dimension eclectic way. We need to see multimedia and software as educational materials like books. **They need to be**

integrated into the curriculum: teachers' class time and outcomes. There has to be a combination of tools. Multimedia CDRoms are adapted not adopted. Teachers and learners need to evaluate the contents and utilise the most important aspects.

In this context, the role of teachers is not as a fountain of knowledge, skills and expertise. He becomes a facilitator - a tutor who guides the learner who is responsible conscientiously for his own learning journey. Information technology tools do not require the teacher to be a technician. However, ICT use places high expectations on pedagogy competence. The ability to evaluate and select educational material and to ordinate and integrate all components in the renewed curriculum, complementing these with other tools - books, visual and sound aids.

The teacher or instructor needs to:

- motivate the students
- maintain autonomy
- explore the new tools
- interact with the leaner to maintain a high motivation
- offer support during individual practise which could be isolating

There is the need to choose adequate software over the paper format for the specific student group. The teacher also needs a certain level of competence in problem solving and explaining the various icons pertinent to the software. Important factors are: coherence with other methodology in other resources used and student levels of skills and experiences. Clarity of educational outcomes, balance of written, audio, video and other factors dealt with above.

With the advent of technology-enhanced classrooms that include computers with Internet access and DVD and CD-ROM capabilities, there is enormous potential to incorporate a great deal of multimedia materials into programs. Learners are shown a wide variety of cultural and geographic drawings and photographs linked to the vocabulary in the target language. Interactive CD-ROM programs that accompany the textbooks used in classes are used to reinforce and expand upon the main topics. Internet-based websites are collected which allow students to access course-related materials. As a result, the students are able to see and hear an expanding variety of "comprehensible input" and develop a broadened awareness of the variety of cultural identities of native speakers of the target language. This process of cultural identification is crucial to acquisition of the target language. The lack of such identification can adversely affect student progress

While these materials are indeed important components of any natural approach second language program, it is clear that their effectiveness in the classroom can vary substantially. The psychological influences of the "Affective Filter," another fundamental component of the Natural Approach theory, influence the degree to which students acquire input presented to them. Many emotive factors serve as filters that either increase or decrease the ease and speed of second-language acquisition and shape students' self-identification as new speakers of that language. These factors include preconceptions or associations with the target language that students bring into the classroom, as well as their attitude or motivation to learn and participate in the language. (Krashen,1983)

I firmly believe that the most significant increases in students' language proficiency are the combined result of enhanced technological input, presented in an environment where positive associations to the target language are abundant and negative associations are absent. Indeed, when the Affective Filter operates on a positive level, students tend to react in a more engaged manner with the input they perceive, whether delivered via the latest technological aids or not. As a consequence, teachers need to foster a positive, nurturing classroom atmosphere, and to monitor and mitigate any negative associations toward the target language. At the same time teachers must also increase the amount of technologically-derived materials that have a specific learning purpose in the curriculum.

BIOGRAPHY

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