SOME GUIDELINES FOR USING COMPUTERS IN THE LANGUAGE CLASSROOM

INTRODUCTION

Along with the push for computer enhanced language learning in the classroom, a concurrent recurring theme in the literature (see Watts, 1997; Levy 1997) on IT cautions against the rush to put everything on the web. Teachers are making a point of acknowledging the need for pedagogically sound use of the available technologies. For example, Hauck and Haezewindt (1999:44) note, “we wish to emphasise that our main objective was to facilitate students’ learning through the use of technology rather than to see how useful technology could be to support learning language...the enterprise was led by pedagogical rather than technological considerations.”

Salaberry (2001:51) writes, “The concern about the pedagogical effectiveness of different technologies is related to the following four major questions:”

1. Is increased technological sophistication correlated to increased effectiveness to achieve pedagogical objectives (ie technology driven vs principle-oriented pedagogy)

2. What technical attributes specific to the new technologies can be profitably exploited for pedagogical purposes (eg coding options specific to each medium)

3. How can new technologies be successfully integrated into the curriculum? (eg interactions 'with' the computer vs interaction 'around' the computer)

4. Do new technologies provide for an efficient use of human and materials resources? (eg use of blackboard vs overhead projector vs PowerPoint for presentations)

Computer use lends itself to constructivism and multimedia discussions have centred on the move away from instructionist approaches in teaching towards constructivist approaches. Kennedy and McNaught (1997:4) define these two approaches as follows:

Instructionists derive their teaching strategies from behavioural psychology: the learner is a recipient of instruction; content is prescribed and instructional strategies focus on delivering the content and covering the course.

...constructivists focus on the learner’s prior knowledge and mental models. The learning environment is made as rich as possible to enhance the students ability to construct knowledge and resolve conceptual difficulties. The emphasis for the constructivist designer is to build learning environments which can be adapted to the specific needs of individual students and actively engage the student in constructing new knowledge.

In other words, constructivism is 'transformative learning', which is learner centred, while instructivism is a transmissive teaching approach, which is teacher-led.

WHEN AND HOW TO USE COMPUTER ACTIVITIES:

Early CALL programs followed the behaviourist model, as do some recent ones, leading to computer materials being used in the same 'traditional' way as the non-computer or print based materials were used. The question then arises, why use the new technology when
the old methods are simply being duplicated? The possibilities of the new technology allow for totally different presentation of language learning materials.

When the decision is made by teachers to use computers in the classroom, the problem is often in ineffective application of the technology with teachers who "continue teaching in the traditional manner when that may not be the most effective application of the technology. Hall (1996:29) notes that most universities are using the technology simply to complement their conventional teaching. Most recognise the promise of learning technologies, but what is missing is an overarching sense of purpose along with any practical sense of what the shape and consequences of successful innovations might look like." (McDonald & Postle, 1999)

A further issue is how are the technologies addressing the needs of language learners. Pedagogical goals must be kept in mind when designing activities and teachers should not be seduced by the technology determining the type of activity simply because the technology exists or is fun. Students are not guinea pigs for teachers to practice newly acquired skills without a consciousness of the language learning goals.

If teachers want to create constructivist activities for transformative learning, instructivist activities can be modified. Sometimes simple modifications can transform didactic activities into dynamic activities. For example, activities with right and wrong answers can be modified by pre-task activities which guide the learner through reflection on the topic or lexical areas. Also, feedback could be modified to contain pointers, encouraging reflection by the learner. Instead of right/wrong feedback, suggestions can be given to encourage reflection on how to modify answers. When directing students on how to use templates or cut and past images/graphics, students might be acquiring computer skills, but in the language-learning classroom, the language learning goals are non-transparent. They can, however, be transformed if the language learning goals are clear and activities turned into collaborative communicative language learning. Furthermore, "in the computer-assisted teaching model, students could access computer-based materials during their course preparatory time, and class time could be reserved for conceptual discussions, peer interactions and mentoring. Rather than spending time making linear presentations of lecture material, instructors could implement creative teaching strategies in the classroom." (Brahler et al, 1999:6)

A common trait for people first acquiring computer skills is to focus on the appearance of what is produced. In England, for example, the school curriculum requires students by age 11 to be able to do basic word-processing and download information, photos and graphics. At this age, students tend to focus on the 'look' of their product and from this point on the teaching goal is on helping the students focus on content as well as the sources and reliability of information. At the college/university level students continue to need guidance on content, sourcing, and paraphrasing. Unfortunately, some teachers, having newly acquired computer skills are also stuck at the phase of making a document colourful or using graphics that, while appealing, do not enhance, but may even be distractive to student learning.

EFFECTIVE MULTIMEDIA INSTRUCTION

It seems apparent the ability of multimedia to provide alternative presentations of language learning materials makes multimedia superior to traditional methods. The ability to combine visual and auditory modalities seems superior to using only one modality. However, there is also the issue of cognitive overload when multimedia is being used. Kalyuga (2000) looks at the consequence of working memory overload. Furthermore, Chun and Plass (1997:67) discuss the conflict that might ensue related to dual information perceptions:

For example, an animation (visual presentation mode) may be accompanied by a text (verbal presentation mode). If both pieces of information have to be perceived visually, though, (e.g., when the text is printed), then the learner may have to split attention between both types of information, which may have deleterious effects on learning. However, Mayer and Anderson (1991) found that when the text information is presented as voice over, using a perceptual modality other than the animation, learning and transfer can be
improved

As teachers we need to consider the usefulness of computer enhanced in-class activities. If students can accomplish the activities or acquire the learning just as easily by using handouts or using face-to-face interactions then the computer is probably superfluous and a possible distraction to language learning goals. It might be fun for teachers who have just learned a new ‘feature’ themselves, but students are there to learn language, not to learn about playing with the computer as a toy. Indeed, the lack of transparency regarding language-learning goals might become a point of frustration to the learner, especially those not convinced of the joys of computers.

**ESSENTIAL FEATURES FOR IN-CLASS CALL ACTIVITIES**

In discussing teaching professionalism in universities, Laurillard (1993:94-95) outlines the characteristics of “the best expression of an empirically-based teaching strategy” with the following principles:

**Discursive**
- teacher’s and student’s conceptions should each be accessible to the other
- teacher and students must agree (sic) learning goals for the topic, and task goals
- the teacher must provide an environment within which students can act on, generate and receive feedback on descriptions appropriate to the topic goal

**Adaptive**
- the teacher has the responsibility to use the relationship between their own and the student’s conception to determine the focus of the continuing dialog

**Interactive**
- the students must act to achieve the task goal
- the teacher must provide meaningful intrinsic feedback on the actions that relates to the nature of the task goal

**Reflective**
- the teacher must support the process in which students link the feedback on their actions to the topic goal for every level of description within the topic structure

Watts (1997:5) lists features of pedagogically sound CALL activities:

- emphasis on problem solving activities in which users have to give considered responses rather than drill-based activities
- encouragement of learner input
- provision of interactive tasks that allow students to learn by following their preferred learning styles
- use of graphics and media such as video sequences to both contextualise and support learning
- inclusion of orientation activities that involve textual, aural or visual cueing to help ‘tune in’ users to the ways in which the program content will be presented
- user friendly computer interfaces to ensure simplicity of operation and create positive attitudes towards computer-mediated study
- the use of help systems and messaging that provides support and feedback to the learner

Brown (1997) suggests essential design features for effective online materials: hypertext; active and collaborative learning; and learner-centredness. “The hypertextual organisation of information in the discipline is essential for self directed learning and encourages students to take an active approach to their learning. Collaborative learning by means of the new computer mediated communications systems can extend and support active, purposeful learning.” (Brown, 1997:9) As well, Chapelle (1998:24) has looked at second language acquisition (SLA) and its relationship to multimedia CALL and proposes research questions to evaluate CALL design:

1. Is there evidence that learners attended to salient linguistic characteristics of the target language input?
2. Do learners choose to see the modifications of linguistic input?
3. Do learners produce ‘comprehensible output’
4. Is there evidence that learners notice errors in their output?
5. Do learners correct their linguistic output?
6. To what extent do the learners interact with the computer to engage in modified interaction focusing on form and meaning?
7. Do learners work toward communication-oriented goals?

CONCLUSION

There is a tendency for teachers new to computer use to design classroom activities that are technologically driven versus pedagogically driven. Using the above principled teaching strategies, teachers can design in-class activities that are pedagogically sound and avoid the pitfalls of the technology dictating the direction.

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ABSTRACT

This paper will look at in-class use of computers for language teaching. While computers are now being used widely in self-access or used on-line for delivery of language courses, teachers have also been offering computer-enhanced activities for in-class language teaching purposes. While anxious to use newly acquired computer skills, teachers often forgo a thoughtful analysis of the pedagogical goals of the activities. This paper will look at some of the pitfalls and offer some guidelines on developing computer-based activities that are pedagogically sound.