

NEW TECHNOLOGIES AND THE ESOL TEACHER

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INTRODUCTION

As Benwell (1986) points out, language teachers have shown themselves to be generally receptive to new education technologies. In recent decades audio-visual technologies, particularly in the form of audio-cassette recorders and VCRs, have become an important part of many English language teaching programmes. Teaching presentations have also been enhanced through electronic aids such as photocopiers and overhead projectors. Having coped reasonably well with these developments, how well equipped are teachers to cope with the IT (information technologies) revolution which involves considerably more complex technologies? In this article we will look at some of the issues relating to use of new technologies in English language teaching, in particular the question of teacher attitude and of technology evaluation.

TECHNOPHILIA OR TECHNOPHOBIA?

Two diametrically opposed views to technology may be found in TESOL as in other education-related areas. On one side is the technophile who is eager to adopt emerging technologies simply because they are novel. As Rivers (1992) observes, it is easy to be naively dazzled by technology and at times a number of us may have fallen into this trap, as can be illustrated in the haste to jump on the language laboratory bandwagon in the 1960s. The early language laboratories presented a classic case of uncritical acceptance of technological innovation when, as became apparent later, considerably more attention should have been paid to software needs rather than hardware and to the ways in which the hardware could be used imaginatively and creatively to contribute to the overall language learning programme. At the other extreme is the technophobe, who harbours deep dislike of machines, who prefers talk-and-chalk to the use of cassette recorders or video and who has a morbid fear of such complicated pieces of equipment as computers.

Of course, most teachers today take a middle position. They adopt the view that technology should neither be overestimated nor disregarded and probably see some validity in the observation that a teacher who could be replaced by a computer should be. This represents a healthy, openminded attitude to technology. We cannot ignore technology but we should not feel driven by it. Advances in technology present us with a wider array of tools to enhance our teaching - but it is up to us to make careful choices of when and where to make use of them. The point made by Hagen (1993) is a good one. Technology should be used when it can be seen to add significantly to the programme, not employed to duplicate tasks which teachers can do well by themselves.

A LEARNER-BASED APPROACH TO TECHNOLOGY

If we accept that in our roles as teachers we should be open-minded about use of the new technological tools available to us, then how can we make decisions on the kinds of technology appropriate for our programmes?

There are a number of avenues that we could follow in making technology choices. One would be to rely simply on the publicity prepared by computer manufacturers and the glossy brochures from retailers that describe software items that are commercially available. We might also gain information from displays at conferences or demonstrations at teacher workshops. However, useful as some of these insights into what is on offer may be, we need a more rigorous framework for selection of technology. After all, the costs of equipment can be high. We want the best value for money and because of this we need to justify the purchase of expensive items on the basis that they will provide tangible benefits.

In general, mainstream educational thought suggests that our decisions in regard to technology use ought to be learner-centred. The focus in education today is firmly on the learner and the ways in which learners acquire knowledge and skills. Following this view, decisions concerning choice of technologies should be founded on a clear appreciation of the learning needs of our students, their learning aims, and their particular learning strengths, styles and strategies. Linked with these considerations is an understanding of the learning process and ways in which learning can be facilitated.

Figure 1 attempts to represent the relationship between learner issues and selection of educational technologies. In this diagram learner/learning/teaching factors are seen as paramount in technology choice (although we must also concede that new developments in technology could, in turn, influence learner expectations, contribute to new ways of learning and even lead to revisions of accepted language learning and practice).

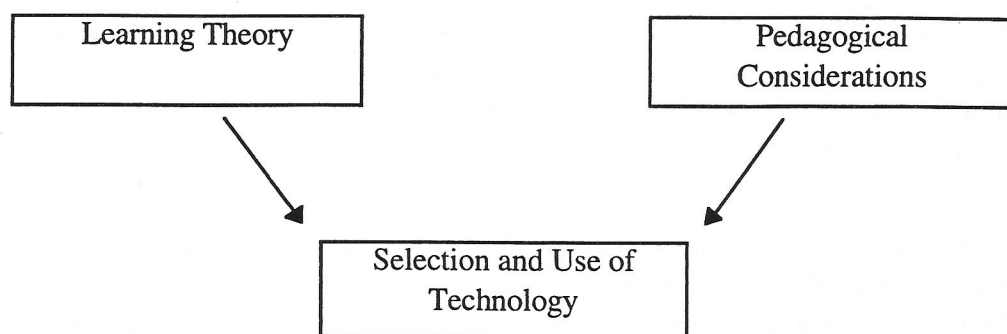


Figure 1 Relationship between learning factors and technology

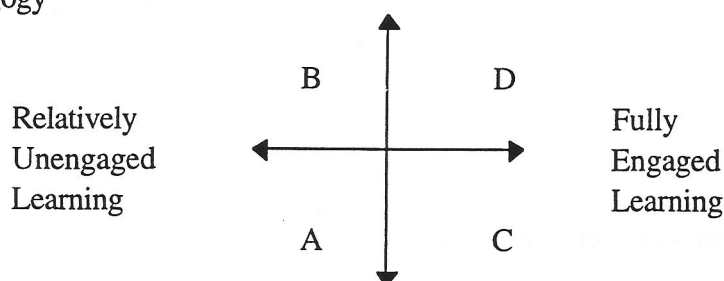
So far we have looked generally at the relationship between teaching/learning and technology. We will now turn our attention to the English language learning domain.

One method of assessing how particular technologies could match specific English language learning requirements is to draw up a "map" of our particular learning/teaching situation and compare it with a "map" of available technologies. In this way areas of compatibility or incompatibility may be highlighted.

Figure 2 below is presented as a simple example of a map of this kind. The horizontal axis represents the learning dimension with, at one end, relatively unengaged learning in which the students tend to be viewed as passive recipients of instruction and, at the other, fully engaged learning in which learners are actively involved in the learning process and perceive the learning programme as fulfilling their needs and aims.

As far as the vertical axis is concerned, it has at one extreme a pedagogical orientation that involves an approach to English language teaching based on a restricted set of methodologies and a limited set of teaching resources; at the other is an eclectic approach which draws upon a variety of methods and techniques and uses a wide range of materials according to the needs of learners.

Eclectic pedagogy



Restricted pedagogy

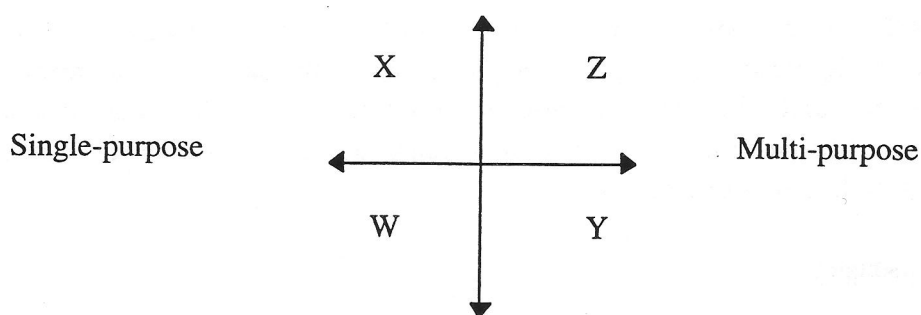
Figure 2 Learning situation map

If we see the intersections of the vertical and horizontal axes as forming four quadrants, Quadrant A represents situations where the language programme tends to follow a structured, sequential approach to learning following a predetermined, set syllabus. At the other extreme Quadrant D may be seen to represent a programme where the syllabus is negotiated on the basis of learner interests and needs and in which the teacher provides for students choice amongst a wide variety of creative and constructive language learning activities. Quadrants B and C represent English learning situations which fall between these extremes (as most programmes probably do).

The particular teaching/learning situation of individual students or a class or group can be plotted on a map of this kind and then compared with a separate map that sets out the characteristics of different available technologies. In Figure 3 the two axes involve (a) the degree of flexibility of the hardware, ie whether it is basically designed for a restricted

range of purposes or can be used for many different purposes (b) the nature of the learning materials that are employed, eg in the case of computer software whether the design model is basically a closed one, forcing students to move along predetermined paths or open, allowing users considerable freedom to follow their own learning paths. Here we need to acknowledge the point made by Buchholz (1992) that high standards of hardware are not always matched in software applications as too many software packages appear to be closed rather than open which may, as Steinberg (1991) suggests, be the result of a "mentality of add-ons" in software design in which authors use new technologies in unimaginative ways.

Open



Closed

Figure 3 Technology characteristics

It is when these two maps are set side by side that the picture emerges as to which technologies appear to be most appropriate for certain learning/teaching situations. For example, in English language learning situations where students wish to carry out additional study on an individual, self-paced basis to revise grammar or extend their vocabulary knowledge, the type of technology used might be found in Quadrant W in Diagram 3. This could involve at the low end a basic computer with text-only software that gives step-by-step intensive practice and immediate feedback.

Another learning situation could be that in which the students have a restricted set of aims such as developing academic writing skills. For this a solution in Quadrant X might be found. It could be that a conventional word-processing computer package would provide the most effective use of technology in cost-benefit terms to enable the students to prepare and edit drafts with peer assistance and learn to make use of spell checks and thesaurus help.

If the learning situation places high priority on language production with active learner involvement in realistic language tasks, the appropriate form of technology would seem to fall into Quadrant Z of Figure 2. In addition to the usual audio-visual resources, learners are likely to derive benefit, either for individual or group work, from well-designed CD-ROM multimedia applications involving sound, graphics, text and video clips that add

realism to language learning activities. Linked computers in a language resource room could allow students to communicate with each other and work on joint tasks. The further step of providing full internet connections, allowing learners to use e-mail to enter into dialogue with other learners of English or native speakers and to access the vast amounts of data available in "cyberspace" to carry out authentic language activities (such as planning travel itineraries based on information provided by City Net), has to be considered carefully, weighing up perceived benefits against the costs involved.

TECHNOLOGY AND THE ESOL TEACHER: THE FUTURE

Although there are distinct advantages in using modern technologies at the present time, provided considered decisions are made as to the selection of appropriate hardware and software, the future prospects are even more appealing. For instance, already multimedia has passed through the stage where students can listen to the authentic speech sounds of speakers of the target language, see people communicating in the street or the workplace and observe important culturally-linked signals conveyed through expression and body language. Through developments in speech recognition, learners are able to engage in conversational interaction, albeit of a somewhat restricted and predictable kind.

Next, language educators are looking for advances in programming to open up possibilities of spoken dialogue that replicate more closely the unpredictability and variety of conversational exchanges and which cater for variability in learner language. They are also looking for multimedia on the internet to facilitate real-time spoken interaction with other learners or native speakers of the language; for virtual reality techniques to enable students to take part in realistic simulations using English in a natural and spontaneous way to overcome information gaps (Hiltz, 1994). Developments in ICALL (intelligent computer-assisted language learning), particularly in applications involving creation of microworlds using natural language processing in which students can engage in conversation with on-screen characters (Murray, 1995), point to the way ahead once underlying hardware environments are ready to support fully such complex systems.

The fact that technology is developing so rapidly poses a real dilemma for teachers who wish to exploit its potential. Should one go ahead with purchases now, knowing that technology purchases today could become obsolete within three to five years or wait for a while? Unfortunately, technological change is something we have to live with. There will probably always be new exciting developments just over the horizon. All we can do is buy the equipment currently available that seems to fit most appropriately into existing teaching programmes and be prepared to update it as circumstances change.

CONCLUSION

In this article we have looked at some of the issues surrounding technology that teachers of English must face up to. As Rivers (1992, p.13) says: "The computer, laser disc, and

compact disc (CD-I audio and CD-ROM) are settling in as permanent features of society; it is for us to seek to use them effectively and economically to achieve our ends, rather than allowing them to determine our ends by their means". It is, then, up to us as teachers to make wise choices of technology in terms of the needs of our learners, and the aims and objectives of our learning programme.

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