

# Education @ Crossroads

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## Introduction

We are fast approaching the new millennium where computers and the Internet will become much more integrated into our daily lives at work, at school and at home. Being able to operate a computer, and having an understanding of how it functions is fast becoming a requisite for employment, (DeLaet, 1997). Japan, which is the second largest economy in the world today, lags far behind most of Western Europe and the United States in setting up infrastructure and in making the Internet accessible to the general public.

It is paradoxical that Japan, one of the world's most high-tech countries, has introduced computers into schools at a rate much slower than the West, (Holmes, 1998). Costs are still very high for the average user, even though prices of PCs have come down drastically. Getting connected and paying the high NTT user rates are still prohibitive for most people, especially for students on limited budgets.

Computers will no longer be a luxury, but are quickly becoming a necessity. Those without basic skills will be left behind in any kind of future job market. In this paper I will present trends in CALL (Computer Assisted Language Learning), in what direction universities are headed, the need for educators to educate themselves in new technologies, and the need

for students—regardless of their major—to become computer literate. I will also present some of the positive and negative aspects involved with computers in the classroom.

## CALL

What is CALL? CALL teacher education has its roots in a long tradition of instruction in educational technologies, especially audio-visual media, but is in some respects unique because of the computer's ability to incorporate other media, and because of the rapid changes in computer technology that constantly expand the computer's educational potential even as they sometimes undermine the assumptions on which previous thinking had been based, (Susser, 1998). One new potential is speech recognition.

The classroom model of education and lab situation so predominant today will not lend itself to speech recognition. Either better input devices (microphones) or more distributed learning centers will be needed to effectively integrate speech recognition into the curriculum, (Ryan, 1998).

A CALL system likely should be a merger of human and machine strengths. A conceptual large-scale adaptive CALL system evolves naturally from an examination of the various relationships in the learner-teacher-machine triad, and the strengths of the three elements of this triad, (Berberich, 1998).

## The Educator

Language teaching and learning resources are being relocated onto the World Wide Web (WWW) at an ever increasing rate. Yet many teachers find themselves lacking the necessary skills to keep up with the pace of

organizing lessons and resource sites on the Internet, (Davies, 1997). Most teachers in Japan (at least at the university level) are computer and Internet literate. In the US, most students know more about computers than their teachers do. Here in Japan, however, the opposite is true. It seems that sometimes students have to be dragged kicking and screaming into the computer room. One of my students remarked recently that only middle-aged men in Japan know how to use computers.

Although most university teachers do have computers in their offices, many do not use them in connection with their classes, and many may not be aware of the potential of computers for language learning. So while educating teachers in the basics of computers is not necessary, many still need to learn about how computers can be used, what kinds of software programs are available, and what kind of research is going on in the CALL field.

This lack of knowledge is not due to complacency or a fear of technology. Setting up home pages, e-mail accounts and so on is labor intensive at first and takes time to master. And the technology itself changes so rapidly it is hard to keep up on new advances. In addition, it is not yet clear what the outcomes of all these computer related courses and CALL curriculums now in place at many universities are.

Having a computer for every student in every classroom, which is President Clinton's stated goal in the US, means nothing without clear objectives and goals. The computer and the Internet are only tools for learning, but they are tools unlike any other.

Looking at some of the recent CALL publications can give teachers a good idea of how computers are currently being used for language learning in Japan and elsewhere. There are articles on how to make home pages and using HTML, many on "Key Pal" projects (like pen pals), articles on

how to make online newsletters and magazines, using e-mail for writing courses, how to adapt class projects to cyberspace, how to evaluate software applications, how to integrate the world-wide web to EFL courses, as well as articles of critiques and criticisms of the rush to create CALL programs.

Full-time teachers also enjoy the advantage of getting online at school free by utilizing the university proxy server. But it is a different matter altogether for part-time teachers who are not full-time at another institution.

Many of these part-time teachers will be teaching some of these CALL courses or using e-mail for students to submit homework, or setting up class home pages. It is important to support these efforts by giving them the same Internet access ability with e-mail accounts that full-time teachers enjoy for as long as they teach courses at any institution. Part-time teachers are an integral part of most universities in Japan and universities will need their cooperation and expertise in adapting a CALL curriculum.

### **The Curriculum**

Before you can have a CALL curriculum you must have the infrastructure in place. The Ministry of Education's position on introducing computer technology and the Internet at private higher education institutions is to leave it up to those institutions to do it themselves. As far as I know the Ministry is not lending any financial assistance. It is obvious that institutions with solid finances will be getting a jump on institutions which do not have those resources available.

Sapporo University has its own proxy server on a LAN, as do many universities in Japan. Every student at SU is eligible to get a free e-mail

account for the period of their enrollment at the university. However, few of my students in the English Department actually bother to register for an e-mail account or for a password to use the computer rooms.

One university that I know of actually requires all freshmen to buy a laptop computer through the university coop at a discount. (I will elaborate more on this in the section on students).

In order to integrate CALL into any curriculum some courses may need to be cut or adapted to the new environment. Before designing any new full-fledged curriculum teachers must have clear objectives and goals, they need to evaluate student needs, they need to conduct a thorough evaluation of all software programs, and they must be able to evaluate what, if anything, the students have learned. But before designing any curriculum individual teachers should, and many are, experimenting with the technology in their classes.

There is a big difference between CALL language labs and traditional ones. For one thing, feedback is instantaneous and the programs are interactive allowing students to work at their own pace.

Prof. Kazunori Nozawa of Toyohashi University of Technology has gone as far to claim at a recent conference in Kyoto that, in one year, some of his student's TOEFL scores jumped about 30 points because of the program in place at his university. However, he did not support that claim with any evidence. But if it is true it would have important implications and should be studied further.

Costs of implementing CALL programs must be considered and some institutions can handle the costs better than others. It is equally, if not more, important to evaluate any and all software programs that will be used in any new curriculum against the objectives and goals of the respective institutions. The new TOEFL computer test is one example of a course

that could easily be adapted to the CALL environment.

### **The Student**

Many of my students in the English faculty seem uniquely ignorant in the very basic use of computers. But of course I was, too, not so long ago. If students are to be required to use computers in the CALL environment they must get some grounding in the basics before fumbling around on keyboards.

Foreign language students will likely need to learn to use multilingual text editors, spelling checkers, and online concordances, (Newfields, 1997). Until the Ministry of Education introduces computers at all high schools in the country it will be up to universities to educate students on how to use them. In the meantime, teachers must use precious class time teaching these basic skills.

For general users, computer literacy can be said to have three components: (1) understanding basic computing principles, (2) knowing how to use at least one operating system, and (3) having proficiency with specific software programs, (Newfields, 1997). One way to do this is to make guides with visuals (see Cholewinski, 1998) that show the students how to do things step-by-step. (Apple computers come with their own HyperCard tutorial programs).

It would be nice if every student had a computer. But they will not until there is a real need to have one. At universities where CALL programs are in place there is such a need. The next best thing where there are no such programs is to get individual teachers to involve their students through various means, such as e-mail homework, creating home pages, finding Key Pals, adapting class projects to the Internet, and so on.

Email is a medium that provides an authentic context in which students can use and improve their English, (Dahlin, 1997). If we compare Internet-derived material with commercially-produced textbooks, some obvious advantages come to light. The Internet is largely created by native English speakers with a view to disseminating information. It is thus highly authentic in its language, in the sense that its primary objective is not to teach language but to convey ideas through language, (Dunkley, 1997).

The problem this poses for students is that they must use the school's computer rooms which are not open as late as many in the U.S. are. And few students have their own PCs.

### **Potential Problems**

Let me restate here some of the problems in switching to the CALL environment or in adapting courses and projects to computers or the Internet.

The first obstacle is economics. CALL is expensive and almost always involves decisions beyond the individual teacher, (Susser, 1998). What are universities willing to spend on setting up a CALL curriculum, and how are they to get every student a computer and get them online?

Another is the curriculum itself. What software programs achieve the best results? What works? What exactly is the pedagogy? Is it possible to establish separate CALL labs for language study only?

There is the problem of teaching students the basic usage of computers and software applications. How can this be accomplished? Do we teach them? Or should there be a required course before going into the CALL lab?

By what criteria do we evaluate software programs for use in CALL? Susser (1998) asks, is technology neutral? What is the classroom culture in

which computers operate? What is courseware and what can or should we do with it? What is good courseware? Should we do what we can?

What are the university's objectives and goals for students? What are the students' objectives and goals? And how can part-time teachers become involved?

### **Positive Aspects**

The benefits of using computers and the Internet for language study are still unclear, but there are certain things that can or may be achieved through the use of computers. Unlike other study materials, computers are interactive and provide immediate feedback.

The majority of the information on the world wide web (WWW) is in English, so even simple net surfing exposes students to a lot of target language input, (Muehleisen, 1997). There also seems to be possible beneficial backwash, such as higher TOEFL scores. It also better prepares students for "the real world" in which computers will be a part of their work environment.

And for teachers, it could, depending on how it is used, eliminate paperwork and handouts (but it will not make it any less labor intensive).

### **The Future**

With schools in Japan drawing from an ever decreasing student pool, it is important to present an image of modernity and, in this case, technology... has the potential to draw more students in, (DeLaet, 1997).

Your department can also benefit from having teachers use computers more effectively. If, for example, a group of teachers is regularly and

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