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Technology and Second Language Teaching

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- Intermediate students of Polish in California correspond by e-mail with counterparts in Cracow, Poland to plan a bilingual web site they will be jointly producing on the World Wide Web. The students work in international teams to plan, design, and edit the web site, which includes textual information about their two universities as well as student-produced video (Barson & Debski, 1996).
- Students in an advanced business French class in Ohio watch French television news via satellite TV. They then peruse French online news groups to follow how French students are discussing a proposed minimum wage cutback. This helps them learn background cultural information about current events and attitudes in France, as well as the precise methods used by native French speakers for argumentation, persuasion, and negotiation (Scinicariello, 1995).
- ESL writing students in Hawai'i use real-time computer-assisted conversation to gain additional writing practice in class. The written interaction fosters greater student participation and collaboration. In addition, the students join e-mail discussion groups in their own fields and also learn how to conduct research on the Web (Warschauer, in press).

The above examples are not atypical of what is occurring in language classrooms across the United States. With the advent of networked multimedia computing and the Internet, language teachers throughout the country have been warming up to using computers in the language classroom. This is particularly true in higher education, where students and teachers have greater access to computer laboratories and Internet accounts than in K-12 schools.

However, the recent enthusiasm for technology in language teaching—witnessed, for example, by the large numbers of presentations at national conferences on this topic—also brings a sense of deja vu. Three decades ago, language programs were also enchanted by promises of magic through technology. That technology—the audio-based language laboratory—brought disappointing results (and, indeed, it is the audio-based labs which are often being replaced by computer labs today). Thus before looking at the use of technology in language teaching today, it is worthwhile to take a brief historical look at technology in the language classroom.

A BRIEF HISTORY OF TECHNOLOGY AND LANGUAGE LEARNING

Virtually every type of language teaching has had its own technologies to support it. Language teachers who followed the grammar-translation method (in which the teacher explained grammatical rules and students performed translations) relied on one of the most ubiquitous technologies in U.S. education, the blackboard—a perfect vehicle for the one-way transmission of information that method implied. The blackboard was later supplemented by the overhead projector, another excellent medium for the teacher-dominated classroom, as well as by early computer software programs which provided

what were known as "drill-and-practice" (or, more pejoratively, "drill-and-kill") grammatical exercises.

In contrast, the audio-tape was the perfect medium for the audiolingual method (in which students were believed to learn best through constant repetition in the target language). University language classes in the 1970s and '80s generally included obligatory trips to the audio lab, where students would perform the dreaded repetition drills.

By the late 1970s, the audiolingual method fell into disrepute, at least in part due to poor results achieved from expensive language laboratories. Whether in the lab or in the classroom, repetitive drills which focused only on language form and ignored communicative meaning achieved poor results.

The 1980s and 1990s have seen a full-scale shift in the direction of communicative language teaching, with an emphasis on student engagement with authentic, meaningful, contextualized discourse. Within this general communicative trend, we can note two distinct perspectives, both of which have their implications in terms of how to integrate technology into the classroom. These can roughly be divided into cognitive approaches and sociocognitive approaches.

COGNITIVE APPROACHES

Cognitive approaches to communicative language teaching are based on the view that learning a language is an unique psycholinguistic process. From this perspective, language learners construct a mental model of a language system, based not on habit formation but rather on innate cognitive knowledge in interaction with comprehensible, meaningful language. Errors are seen in a new light—not as bad habits to be avoided but

as natural by-products of a creative learning process that involves rule simplification, generalization, transfer, and other cognitive strategies. A learner's output, if relevant at all, is beneficial principally to the extent that it helps make input more comprehensible or salient so that the learner can construct his or her own knowledge of the language.

Technologies which support a cognitive approach to language learning are those which allow learners maximum opportunity to interact within meaning-rich contexts through which they construct and acquire competence in the language. Examples of these types of technologies include text-reconstruction software, concordancing software, telecommunications, and multimedia simulation software.

Text-reconstruction software (e.g., NewReader from Hyperbole or Text Tanglers from Research Design Associates) allow teachers to provide students various texts in which letters or words are either missing or are somehow in mixed up order. Students work alone or in groups to complete or re-arrange the texts, thus supporting a process of mental construction of the linguistic system. While such activity could in theory be carried out with paper and pencil, the computer provides facilitative functions for both teachers and students. In keeping with students' needs, interests, and current curricula, teachers can quickly and easily create re-arranged texts or cloze exercises from any original word-processed passage. Students can use hints provided by the computer as scaffolds for the acquisition process.

Concordancing software (e.g., Monoconc from Athelstan) allows teachers or students to search through small or large texts to look for instances of the actual use of particular words. Concordancers are thus supplements to dictionaries in that they help locate the usage of a word, rather than just its definition. In addition, concordancers are

useful for investigating collocational meanings (e.g., "large box" vs. "big box," or "depend on" vs. "depend in" vs. "depend for") or grammatical features (e.g., "was going" vs. used to go). Indeed, language learners can develop their own hypotheses regarding rules of syntax or semantic collocations and test these out as powerful problem-solving activity.

Multimedia simulation software allows learners to enter into computerized microworlds that, at their best, simulate an immersion or a “linguistic bath” environment; that is, learners can a sense of experiencing the target language and culture first hand. Many such products also allow a great of learner manipulation of language forms, functions, and cultural knowledge as part of their experience within the simulated environment. One early example of a language learning simulation is the multimedia videodisc program A la rencontre de Philippe developed by the Athena Language Learning Project at the M.I.T. Laboratory for Advanced Technology in the Humanities. Philippe is a game for intermediate and advanced French learners that incorporates full motion video, sound, graphics, and text, allowing learners to "walk around" and explore simulated environments by following street signs or floor plans. To help language learners understand the sometimes challenging French, the program provides optional comprehension tools, such as a glossary and transcriptions of audio segments , as well as a video album that includes samples of language functions. Students can also create their own custom video albums, which they store on their own computer diskettes.

While text-reconstruction programs, concordancers, and multimedia simulations are often used in pairs or groups, the software programs by themselves do not of themselves necessitate human-to-human interaction.

SOCIOCOGNITIVE APPROACHES

Sociocognitive approaches, in contrast to cognitive approaches, emphasize the social aspect of language acquisition; learning a language is viewed as a process of apprenticeship or socialization into particular discourse communities (Schieffelin & Ochs, 1986). From this perspective, students need to be given maximum opportunity for authentic social interaction, not only to provide comprehensible input but also to give students practice in the kinds of communication they will later engage in outside the classroom. This can be achieved through student collaboration on authentic tasks and projects (see for example Breen, 1987; Candlin & Murphy, 1987; Long & Crookes, 1992; Prabhu, 1987) while simultaneously learning both content and language (see for example Flowerdew, 1993; Meskill, (in press); Snow, 1991).

The Internet is a powerful tool for assisting a sociocognitive approach to language teaching, and it is in fact this fit of the Internet with a sociocognitive approach which largely accounts for the new-found enthusiasm for using computers in the language classroom. The Internet is a vast medium which can be used in a myriad of ways. We will briefly discuss some of the principle ways that some of the main online tools are being used in language teaching.

Computer-Mediated Communication in a Classroom

There are several different approaches for using the Internet to facilitate interaction within and across various discourse communities. One way is to use online activities to foster increased opportunities for interaction within a single class. This takes place both through computer-assisted classroom discussion and through outside-of-class discussion.

Computer-assisted classroom discussion makes use of synchronous ("real-time") writing programs, such as Daedalus Interchange by Daedalus, Inc. The class meets in a networked computer lab and students converse through writing rather than through talking. Each student types on the bottom of the screen, and hits a key to instantly send the message to the rest of the class. All the messages are listed chronologically on the top half of the screen and can be easily scrolled through and re-read. The entire session can later be saved and passed on to students, either in electronic form or hard copy.

Outside-of-class discussion is usually carried out using asynchronous tools, such as e-mail or conferencing systems. Special services (listservs and newsgroups, for example) can be set up so that messages sent get forwarded to either a small group or the whole class.

Electronic communication within a single class might be viewed as an artificial substitute for face-to-face communication. However, it has been found to have a number of different features that extend oral communication and thus can be well-exploited as an additional medium of communication within a class. First, computer-assisted discussion has been demonstrated to be more democratic than face-to-face discussion; teachers or a few outspoken students are much less likely to dominate computer-assisted discussion as the medium encourages more equal participation, resulting in class discussions which are more fully collaborative (Kelm, 1992; Kern, 1995; Meskill, Swan and Frazer, 1997) Warschauer, 1996; Warschauer, in press). Secondly, computer-assisted discussion allows students to better notice the input from others' messages and incorporate that input into their own messages, thus expanding opportunities for learning of new linguistic chunks (St. John & Cash, 1995; Warschauer, in press). Third, computer-assisted discussion,

which takes place in writing and allows more planning time than does face-to-face talk, features language which is lexically and syntactically more complex (Warschauer, 1996). Finally, computer based discussion which takes place outside of the classroom increases students' opportunities to communicate in another forum, affording both general language practice and practice in writing. For all these reasons, language teachers (especially but not exclusively in courses which feature writing) have found single-class computer-mediated communication projects to be beneficial.

Computer-Mediated Communication for Long Distance Exchange

Computer-mediated communication between long-distance partners offers many of the same advantages, and then some. In particular it allows students the opportunity for target language practice in situations where such practice might otherwise be difficult. This is especially important in foreign language classrooms, where students might have little other access to authentic language use.

Long-distance exchange projects have been organized in a variety of ways, generally using e-mail but also using web-based conferencing systems or various types of software for synchronous chatting. It is generally agreed that the most effective exchange projects are ones that are well-integrated into the course goals and are based on purposeful investigation rather than just electronic chat. Such projects might involve joint exploration of culture, social conditions, film, or literature, and often result in some kind of collaborative publication (for examples and discussion, see Cummins & Sayers, 1997; Sayers, 1993; Warschauer, 1995a; 1995b)

Accessing Resources and Publishing on the World Wide Web

The World Wide Web offers a vast array of resources from throughout the world. While the majority of web pages are in English, increasingly large numbers exist in other commonly-taught (and some uncommonly-taught) languages, including Spanish, French, German, Japanese, and Chinese. Accessing and using these pages in language education supports a sociocognitive approach by helping immerse students in discourses that extend well beyond the classroom, their immediate communities, and their language textbook. This is particularly critical for *foreign* language students who otherwise see the target culture only through their instructor and select curricula. Students can use web pages as authentic materials for conducting research on culture and current events (see for example Lixl-Purcell, 1995 and Osuna and Meskill, 1998) or for gathering material for class projects and simulations (see for example Deguchi, 1995; Rosen, 1995). Students can also publish their own work on the World Wide Web, thus enabling writing for a real audience. In some cases, teachers have created in-class online newsletters or magazines that their classes have produced (see for example Jor, 1995). In other cases, teachers help their students contribute to international web magazines which include articles from many students around the world (see for example Shetzer, 1995). And in other situations, students work together in collaborative teams internationally and then publish the results of their projects on the Web (see for example Vilmi, 1995)

One particularly creative application pairs new technologies with service learning, in which students perform an authentic service for community organizations. At a college in Hawai'i, ESL students work in small groups to make a web site on behalf of a community organization (see discussion in Warschauer, in press). They interview

members of the organization, gather information and documents from them, and put everything together in a coherent online package, learning both writing and presentation skills in the process.

ADVANTAGES AND DISADVANTAGES

Before presenting case studies of technologies in use with language learners, we will first address the general question of the advantages and disadvantages of using new technologies in the language classroom.

One question often asked by administrators is whether or not technologies truly "work," that is, if they promote language learning and do so in a cost-effective way. These types of questions motivated much research in the 1970s comparing use of computers to non-use of computers.

This type of research ignored two important factors. First of all, the computer is a machine, not a method. The world of online communication is a vast new medium, comparable in some ways to books, print, or libraries. To our knowledge, no one has ever attempted to conduct research on whether the book or the library is beneficial for language learning. The enterprise of seeking similar conclusions on the effects of the computer or the Internet is equally inappropriate.

Secondly, and even more importantly, new communications technologies are part of the broader ecology of life at the turn of the century. Much of our reading, writing, and communicating is migrating from other environments (print, telephone, etc.) to the screen. In such a context, we can no longer think only about how we use technologies to teach language. We also must think about what types of language students need to learn in order to communicate effectively via computer. Whereas a generation ago, we taught

foreign language students to write essays and read magazine articles we now must (also) teach them to write e-mail messages and conduct research on the Web. This realization has sparked an approach which emphasizes the importance of new information technologies as a legitimate medium of communication in their own right rather than simply as teaching tools. Moreover, the nature of electronic media also implies forms of language and literacy heretofore unknown to the world of learning measurement. As such, we are faced with learning activity the cognitive implications for which are as yet unexplored.

In summary, then, the advantages of using new technologies in the language classroom can only be interpreted in light of the changing goals of language education and the changing conditions in postindustrial society. Language educators now seek not only (or even principally) to teach students the rules of grammar, but rather to help them gain apprenticeship into new discourse communities. This is accomplished through creating opportunities for authentic and meaningful interaction both within and outside the classroom, and providing students the tools for their own social, cultural, and linguistic exploration. The computer is a powerful tool for this process, as international cross-cultural discourse is frequently taking place in an online environment. The main advantage of new technologies is thus that they can be used to help prepare students for the kinds of international cross-cultural communication which are increasingly required for success in academic, vocational, or personal life.

What then are the potential disadvantages of using new technologies for language teaching? We focus on three aspects: investment of money, investment of time, uncertainty of results.

Investment of Money

Uses of new technologies in the long run tend to result in higher productivity, at least in the economic sphere. Productivity in education is certainly harder to measure, but it is not unreasonable to assume that over time new technologies will help create more effective education (bearing in mind the earlier point that the goals and nature of education are changing in the information age, thus making direct comparisons difficult). In any case, whatever results may be achieved over the long term, there are definite startup expenses related to implementing new technologies in education. For college language learning programs, such expenses usually entail hardware, software, staffing, and training for at least one networked computer laboratory where students can drop in and use assigned software and one or more networked computer laboratories where teachers can bring whole classes on an occasional or regular basis. Intelligent use of new technologies usually involves allocations of about one-third for hardware, one-third for staff support and training, one-sixth for software, and the remainder for maintenance and upgrade costs. It is often the case in poorly-funded language programs that the hardware itself comes in via a one-time grant (or through hand-me-downs from science departments on campus), with little funding left over for staff, training, maintenance, or software.

Investment of Time

Just as technologies may save money over the long term, they also may save time. But, potential long-term benefits to an institution are little consolation to an individual teacher who is spending enormous amounts of time learning constantly-changing software programs and trying to figure out the best way to use them in the classroom.

Increases in time are due in part to the difficulty of using new online multimedia technologies in their still-early stages (comparable, perhaps, to the early days of tuning a radio or starting a car when those machines were first invented). However, time problems are caused not only from learning how to master the technology, but also from the changing dynamics of the online classroom. As indicated earlier, new technologies create excellent opportunities for long-distance exchanges, but such exchanges can be extremely complicated in terms of coordinating goals, schedules, and plans—especially when involving teachers from different countries or educational systems. Also, another benefit of electronic communication—that it provides opportunities for student-initiated communication—can also turn into a time-challenge, as a teacher's e-mail box becomes flooded with messages from previously reticent students.

Uncertainty of Results

As indicated earlier, there is no single predictable outcome for using computers, anymore than there is for using books or libraries. Thus institutions and teachers are expected to invest large amounts of time and money without any guarantee of achieving particular results.

Research in both the business sphere (e.g., Kling & Zmuidzinas, 1994; Zuboff, 1988) and in education (e.g., Sandholtz, Ringstaff, & Dwyer, 1997; Warschauer, in press) indicates that simply bringing new machines into an institution does little to bring about the kinds of social transformation needed to make effective use of those machines.

Whether in workplaces or in schools, the natural tendency is to use new technologies in ways consistent with previous methods of organization and practice. This can often result in inefficient or even demotivating uses of computers, in which workers or students

see their interpersonal connections and personal power reduced (for example, through highly automated uses of technology such as computer-based drills) rather than increased.

As discussed earlier in this chapter, new online technologies match well with newer approaches to language teaching, in which students are viewed not as empty vassals to be filled but rather as active agents collaborating in their own learning process. Yet even in situations where teachers already adhere to such a perspective, teaching in an online environment can challenge intact epistemologies and practice. The online world represents some new challenges, and learning how to integrate new online technologies into the classroom will likely be as long and complicated a process as doing the same has been in the business world—but made even more difficult in education by lack of dependable funding for equipment and support.

Having said all of this, we still believe that integrating new technologies should be an important goal of language programs, but a goal of which the cost and complexity should not be underestimated. The most effective technology-enhanced language programs take many years to develop, and are based on much trial and error, administrative support for teacher experimentation and collaboration, and sustained, careful attention to the forms of social organization and pedagogy which accompany the use of new machines.

In the next part of this chapter, we will examine three language programs which we think represent good examples of how technology can be successfully integrated into language teaching in higher education.

Case Studies: Introduction

The following are examples of technologies being used and used well in three different contexts: one foreign language, one English as a second language, and one dual language program. Where these three contexts are very different in terms of learner populations, goals, and processes, there is nonetheless a particular consistency across them in terms of how teachers are conceptualizing the role of technologies in their teaching. As you will see, the status quo has clearly been shaken up by the new possibilities technologies represent for language instruction. For example, pivotal to all three of these case studies is learner empowerment - the potential technologies represent for learner involvement in shaping the learning process and constructing their own understandings through access to rich electronic tools and resources. Technology appears to be allowing both teachers and students to think differently, to consider possibilities for action and engagement otherwise not possible. In the field of instruction, this could be considered a conceptual revolution.

CASE STUDY #1: Foreign Language Instruction and Technology

Yoko Koike teaches undergraduate courses in Japanese language and culture at Haverford, a small Quaker college in Pennsylvania. Haverford is part of the Swarthmore, Bryn Mawr tri-college system. Undergraduate courses in Japanese as a foreign language are offered as part of the Colleges' Liberal Arts curriculum which includes a one-year foreign language requirement. Students completing the required year may go on to advanced courses, participate in study-abroad programs, and/or continue on as East Asian Studies majors. Yoko has been implementing a number of different technology-supported

activities at all levels. She sees technology as a very useful means of supporting her pedagogical goals and processes.

Learner Population

Yoko finds the students enrolled in her Japanese classes to be highly motivated and very serious about their study of Japanese. Where her students come from all three of the tri-college campuses, a good number are of Quaker origin. Yoko observes in her students a heightened social consciousness and an openness to differences that help shape a very positive ethos in the language classroom. She also sees her students' orientation contributing to their propensities and abilities for taking on, negotiating, and articulating complex social and political issues.

Teacher Epistemologies/Integration

One of Yoko's major goals is to help her students come to see themselves as something very different from how they have traditionally viewed themselves, that is where they have typically seen themselves as *learners* of a language, her wish is that they come to see themselves as skillful *communicators* in the language. A great deal of her course design hinges on this concept. Activities, both with and without technologies tools, are fashioned to support active learner *use* of the target language. Central to her course is what she calls "chatting" - conversing for meaningful purposes in Japanese. In class she carefully guides these "chats" between and among students to enable as much effective, learner-centered interaction as possible. For this approach to be successful, she explains, her role, the role of her students, and the goals of her curriculum are of necessity radically non-traditional. Nonetheless Yoko carefully builds in a system of guidance and accountability in her assignments. Conversations are systematically reported in writing

following a standard written guide. Learners therefore become proficient in reflecting on their experiences and producing written summaries of their Japanese chats. These include 1) where the conversation took place; 2) with whom; 3) what was discussed; 4) how long it took place; and 5) how the individual felt about the interaction. They are assigned to engage in similar chats with native Japanese speakers in the community (their assigned “language partners”) for which they also submit the same summaries. She encourages her students to be concerned less with accuracy and more with what they want to say, what is meaningful for them, and what, as she says, “comes from their hearts”.

Logistics/Integration

Yoko sees technologies as potentially “noisy”; that is, they can get in the way of and overshadow the true goals and processes of her communicative approaches. Initially she works hard with students to help “quiet down” the technological so that the communicative potential is what eventually gets fully exploited. One of her main purposes in integrating a technology component is to expand opportunities for her students to interact with the language and culture. To these ends, she has effectively extended their “chatting” opportunities to include interaction with Japanese learners and native speakers from around the world.

Preliminary to students’ interchanges beyond the classroom, Yoko trains students in the use of word processing in Japanese and in using an online Japanese-English dictionary using the Japanese Language Kit. These and subsequent electronic communications sessions are held in the College’s computer laboratory. The Japanese software package is particularly useful and time saving in that learners can type in a

phonetic approximation and the software will supply an appropriate character. Students can then check that the desired character has been generated by comparing it to online dictionary entries. This speeds up an otherwise time-intensive process that can slow down communication. Yoko also notes that the process of trial and error with the phonetic equivalences is a highly valuable language learning activity in and of itself.

The fairly simple writing tasks she assigns helps her students become comfortable with the tools and act of composing in Japanese. She also reports that where she otherwise speaks to them exclusively in Japanese, during these training sessions she talks about the actual letters they are typing as they navigate Japanese writing in English so as to increase their confidence, to “help them relax so they can concentrate on communicating”.

Once learners are comfortable word processing in Japanese, Yoko orchestrates local online chats with the Daedalus Interchange. This software runs on a local area network (LAN) and allows exchanges in real time between students. She posts questions for discussion and lets her students converse on the computer with one another on the topic. Yoko stresses the similarity between these online chats and those she orchestrates in the classroom. The difference, she says, is only in that more reticent students have more opportunity to actively participate and that more controversial subjects are more openly discussed. She sites one example of her class having viewed a disturbing documentary about forced prostitution of Japanese women during World War II. The class sat in stunned silence after viewing it. Shortly after, on the Daedalus Interchange, they could freely express their reactions. Another Interchange assignment that was particularly effective was in conjunction with the class reading of a Japanese novel.

Students were assigned to take on the role of characters from the novel and conclude a conversation begun, but not resolved, in the novel.

Where students are not evaluated on their contributions to these discussions, Yoko does use the record of these conversations to note progress and difficulties with the language. She uses this information to provide remediation and to tailor future class activities.

Once students are comfortable using Japanese to communicate using the computer, Yoko orchestrates conversation partners for her students with students in Japan. Learners “meet” one another initially through two-way, CUCme technology. They are then assigned to collaborate on various projects. Some examples of online collaborations follow:

Research on social issues: Students query one another about their culture’s key social issues, point one another to online information, and collaboratively prepare reports. One example is a comparative investigation of homelessness in Japan and the U.S.

Research on Cultural Similarities and Differences: Again, students from both cultures share information on their respective cultures and collaborate to construct a report on their findings. An example is comparing the foods and eating habits of Japan and the U.S.

Responding to Literature: Paired U.S. and Japanese students read a novel “together” and compare and analyze their reactions by virtue of their cultural groundings.

The outcome of these collaborations is a set of reports that are posted on the class web page. These are then open to critique, reaction, and input from an even wider community.

More extensive collaborations have taken place with advanced, fourth year learners of Japanese who, along with a similar group of learners at the University of Hawaii, and students at a high school in Japan, participate in the Ideal Town Construction Project. Over a four-week period, learners collaborated to construct a fictional town that ended up including a bookstore, a restaurant and an inn. Collaborations took place synchronously - in real time - and often represented challenges in terms of scheduling. However, students at all three sites persevered and the town was built. Another group of advanced students worked with these same distant collaborators to create an online magazine called 'Choobarabazine' - which translates into something akin to 'potpourri'. Teams assigned themselves to develop one magazine piece that was 'light' and one that was 'heavier'; that is, for example, the horoscope section and a piece of social or political commentary. The magazine was posted on the Web and others from around the globe were encouraged to comment.

Evaluation

Yoko reports that students write much more electronically than they otherwise would with pen and paper, though they must also practice writing Japanese characters as part of their learning. Students see the electronic communications as valuable and attend closely to the messages they write and read - this being the truly authentic material for them and for the course. She also stresses that these communicative activities and environments encourage a great deal of listening, speaking, reading, writing, and culture that is critical for their mastery of the Japanese language. As is true to her belief about learning, her students are very active users of the language by virtue of her careful

planning and implementation of these extensive and exciting communication opportunities.

Visit Yoko's website at:

<http://www.haverford.edu/jnse/japanese.html>

Case Study #2: ESL & Technologies

Douglas Mills, Computer Assisted Language Learning Coordinator for the Intensive English Program at the University of Illinois, has been working to implement and integrate technologies for ESL instruction since 1992. The Computer Assisted Language Learning Center assists Institute instructors (many of whom are Master's candidates in the University's TESOL Program) in examining technologies in light of individual needs, interests, instructional styles, and pedagogical possibilities and to design and implement computer-based classes accordingly. For the past two years, the Institute has offered a program of computer-based language learning sections for students in their intensive, integrated language skills program.

Learner population

The student body of the Intensive English Program at the University of Illinois is comprised of a mix of pre-academic students (academic skills and TOEFL preparation) and international students seeking a study abroad experience. Both types of learners are seeking to improve their skills in listening, speaking, reading, and writing English for academic and professional purposes. The 130-200 ESL students in the institute represent a broad range of interests and experiences. Many are drawn to learning English through technology by virtue of their professional and/or academic interest in computing and

telecommunications. Many recognize computer and telecommunications savvy as crucial to their professional goals. The Institute's program of intensive study includes, for those at the top two levels of English proficiency, the opportunity to select courses in the English Language through Computers and Internet Project (ELCI). Such courses have proved a very popular and well received component of the ESL curriculum.

Teaching Epistemologies/Integration

Teachers in the Intensive English Program are chiefly Master's candidates in the University's Master's in TESOL program who teach under the supervision of full-time staff and faculty. The bent of their academic training in TESOL is the eclecticism representative of Communicative Language Teaching (CLT). One of the main tenets of CLT is that instructional design and implementation begin with the needs and interests of learners. This tenet is strictly adhered to within the program where content, materials, and methods are selected, designed, and used according to learner interests and needs. There is also carefully crafted skills integration in teaching and activities so that learners practice reading, writing, speaking, and listening to English in a variety of ways for a variety of real and engaging purposes. Computers and the Internet represent for the Center a powerful tool for these purposes.

Much teacher autonomy is encouraged and supported in the computer-based curriculum development process. Instructors are supplied with training and templated instructional routines to which they can fit their own objectives, content, and activities. In addition to developing the actual curriculum, teachers also develop a paper-based course packet to accompany the courses they design. They essentially have free reign to shape

the course as they see best, do so within the CLT framework that guides their professional development as graduate students, and exercise a great deal of initiative.

Logistics

The English Language through Computers and Internet courses are conducted twice weekly in the CALL Center which is set up with a variety of software tools, including Internet access. Instructors design and facilitate task-based activities that require learners to read, write, listen, and speak in English. The content through which they improve their skills is computers and the Internet. Activities therefore exercise language skills development through talk and writing with, around, and about technology. Task-based exercises include real life writing tasks undertaken both individually online and collaboratively in the computer laboratory. Such tasks can, for example, focus on controversial topics regarding telecommunications - policies and practices related to the Internet - or practical issues - e.g., students research, plan, and teach their peers how to cut and paste images from the Web. In short activities require learners to use computers and the Internet to accomplish concrete, authentic tasks using English as the medium.

One such assignment entails students joining a chat site to argue the merits of bilingualism. They participate in extended online discussions which they report back to the class. Additionally, students' work is made public through web sites and other public online fora. Both teachers and classmates have the opportunity to provide a great deal of feedback on these 'published' works. In some cases students are assigned joint editorial work on a single piece - an essay, multimedia presentation, or website, for example. Oral presentations represent the culmination of many of these task-based student projects. Students' final technology projects are also showcased at an end-of-semester open house

attended by Institute students, teachers, and others. In addition to these computer and Internet-based courses, teachers in the Institute publish their course syllabi and use the web to showcase students' projects.

Evaluation

Students participating in these language through technology courses have responded very favorably to both the content and methods of these classes. At the end of the term when formally asked whether these courses had met their expectations, the vast majority of students responded favorably. Interestingly, approximately one half of these same respondents did not agree that the course contributed a great deal to the improvement of their English skills. This is due, explains the technologies co-ordinator, and can be verified by most ESL professionals, to learner expectations and notions of how one best learns another language. If learners come from instructional cultures that adhere to a strictly grammar-based, teacher-centered method of language instruction, then they will be more reticent to accept task-based, learner-centered approaches as contributing to their language acquisition processes. The Institute attracts a number of students from just such cultures. So that, when asked if they were satisfied with the way the course was designed and conducted, they agree; when asked indirectly if this is the best way to learn a language, they may be more inclined to use their cultural norms and expectations as a yardstick and see communicative practice as a non-fit.

Teachers, on the other hand, have ongoing opportunities to assess language skills development on the part of their students through observing learner processes and in the online, oral, and written work they produce as part of their assigned tasks. Technology as the content, material, and tool for advanced ESL courses appears to be an excellent fit.

Visit the Center's Website at <http://deil.lang.uiuc.edu/elci/>

Case Study #3: Bilingual Study and Technologies

Orlando Kelm, University of Texas, Austin, conducts courses in Spanish and Portuguese in conjunction with his University's Business Program. His courses are designed for undergraduates who are dual majors in Spanish and Business and for MBA candidates who opt for a language track for their degree program. He has found that the integration of technologies into this curriculum allows his students to actively engage in language use in ways that are unique and powerful. The following describes his technology integration in undergraduate courses for dual majors.

Learner Population

Undergraduates at the University have the option to elect a dual major: Business plus Spanish. Students complete a minimum of three Business-based courses that are taught in Spanish. Such courses use as content of the Business curriculum as the content through which the target language is learned. Students thereby learn business concepts and the target language associated with them at the same time. The majority of students who take these courses are from homes where Spanish is the language spoken. Other students are monolingual English speakers who have some experience studying the language in their prior schooling, or students have developed an interest in the language independently. Those who opt for the language track version for their graduate study take at least three courses for which the target language is taught exclusively through the content of Business. As such, they become skilled not only as business professionals, but as bilingual business professionals.

Teacher Epistemology/Integration

One of Orlando's most challenging courses is an advanced Spanish grammar and composition class. Students who take this course represent a wide range of ability levels. Using a lock-step, teacher- and text-centered approach with such a group is not a satisfactory option. Instead, Orlando has designed the course in such a way that language, content, and materials are sufficiently flexible and student-directed to meet the needs of all students in the course. Technology plays a key supporting role.

Design of the Advanced Grammar and Composition course for Business majors is very much driven by a learner-centered approach to language instruction. The instructor adheres to the notion that students learn language best when they take on very active roles in engaging in and shaping their own learning processes. This is a particularly critical issue at the advanced level where variation in learner needs and abilities is great. Orlando sees his preparation of and provision for the multiple resources he develops and makes accessible to his students via the Internet as an integral aspect of motivating and supporting an active and engaged language learner. Whereas web-based assignments, resources, and online tools comprise the key material with which the course's major activities and assignments are undertaken, it is the dialogic use of the target language in the classroom that forms the core of this language through content curriculum. Technologies serve to feed and support these communicative processes.

Orlando's beliefs about teaching and learning with technologies are best summed up by his statement, "It's not so much what I do with technology, but what technology helps me get the students to do. That is what results in learning".

Logistics

Students in the Advanced Grammar and Composition course are responsible for four major assignments/components. Each of these components is supported by web-based materials prepared by the instructor.

Excel Assignment: Students are assigned business-related problems that entail using several database and statistical functions of Microsoft Excel. Spanish definitions, explanations, and examples of various functions of the software, links to help in both English and Spanish, and problems learners are required to solve are all posted on the course web page. In addition, Orlando posts a slide presentation of a correct solution to the problem as a model and guide for students to reference. His rationale for providing a correct solution is that the exercise is a *language* exercise, not a business test. The major objective is for his students to acquire structures and vocabulary related to business concepts, not to ‘get a right answer’.

Students are responsible for a total of twelve of these problems during the course of the semester. An example problem would be for students to calculate the depreciation of factory machinery over a given period of time. The problem is discussed by the entire group in class. Once a week the class meets in the computer laboratory and students are put in rotating pairs to discuss these problems and the solutions they have devised. Their culminating assignment for each problem is to write the instructor a formal business memo in the role of a company employee that describes the problem, provides needed data, and provide recommendations for future action. The memo must make use of relevant business and technical vocabulary. It is a realistic document that both practices and demonstrates students’ grammar and composition abilities.

Video-Assisted Oral Presentations: The second web-based assignment for this course is an oral presentation students are required to make based on 15-20 short articles on business issues. For each of these articles, a videoclip of a native speaker of Spanish discussing its content is made available on the course web page as well as on a CD-ROM. These video clips serve two important functions: 1) they serve as models for students' own oral presentations; and 2) the accompanying transcripts of the video sequences serve as one of the course's primary grammar texts - the class goes through these transcripts line by line to study grammar and vocabulary in use.

Business Case Study and Grammar Portfolio: Two additional assignments round out this demanding course: reading, discussing, and writing about an online business case study, and a student-generated grammar portfolio in which examples of structures must be provided and explicated. Many of these examples are taken from the more than 500 video clips of Spanish speakers that Orlando makes available via the web.

Evaluation

Orlando has been teaching the Advanced Grammar and Composition course for Business majors for two years. Response from participating students has been overwhelmingly positive. They feel the integration of technologies support real models and contexts through which they can actively improve their listening, speaking, vocabulary, and writing abilities. Orlando's own assessment of the course is equally positive. As a teacher he sees technologies as a powerful means for reassessing instructional approaches in light of all the possibilities technologies represent and as forcing new ways of thinking about and approaching instruction. This course is an excellent example of just such thinking.

For further, current information regarding these courses, visit

<http://www.sp.utexas.edu/ork/kelm.html>

These are three exemplary instantiations of current best thinking in the field of second and foreign language teaching. They illustrate how three language professionals successfully integrate technologies in order to enhance their students' motivation and achievement. Additional examples abound from around the world where professional educators are seeing advanced computer tools and capabilities as complementary to their goals and approaches as language educators. As the rates and efficiencies of technologies, especially telecommunications, increase, so too will the instances of exemplary integration of these technologies in the field of second and foreign language learning.

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Internet Sites

CALL: Computer Assisted Language Learning

<http://www.vein.hu/~rohonyia/kutl.us.html>

Excellent resource for those wishing to hear and contribute to discussion on language professionals' views and opinions concerning Computer Assisted Language Learning. Links to a number of relevant papers and conference proceedings are also available through this site.

National Clearinghouse on Bilingual Education

<http://cis.ncbe.gwu.edu>

The National Clearinghouse for Bilingual Education (NCBE) website is designed to assist language teaching professionals, administrators, and researchers in the quest to provide the best instruction to culturally diverse students. The site provides bilingual education resources including online libraries with journals, bibliographies, reports, and abstracts. Funded by the U.S. Dept. of Education, this well organized site also offers information concerning technical assistance, classroom aids, scholarly articles, and lesson plans.

Center for Electronic Language Learning and Research

<http://www.albany.edu/cellar>

University at Albany, State University of New York

This site offers extensive resource links for foreign and second language professionals. Practical pedagogical issues, materials, and lesson plans are available along with links to numerous academic resources. During the academic year, the site offers live chat sessions with native speakers of Spanish, French, and Russian.

Journals

Language Learning and Technology Journal

<http://polyglot.cal.msu.edu/llt>

Language Learning & Technology is a refereed journal that began publication in July 1997. The journal seeks to disseminate research to foreign and second language educators in the U.S. and around the world on issues related to technology and language education. Language Learning & Technology is a fully-refereed journal with an editorial board of scholars in the fields of second language acquisition and computer-assisted language learning. The journal is published exclusively on the World Wide Web.

Computer Assisted Language Instruction Consortium (CALICO) Journal

<http://www.calico.org>

Southwest Texas State University

CALICO, the Computer Assisted Language Instruction Consortium, is a professional organization that serves a membership involved in both language education and high technology. CALICO has an emphasis on modern language teaching and learning, but

reaches out to all areas that employ the languages of the world to instruct and to learn. CALICO is a recognized international clearinghouse and leader in computer assisted learning and instruction. The CALICO Journal is a quarterly publication devoted to the exploration of the new technologies as applied to language learning. The oldest publication and professional organization dedicated to issues of technologies implementation for language instruction. This quarterly journal includes technology-related research articles, software and book reviews, reviews of related conferences, and commentary.

Computer Assisted Language Learning

<http://sun.swets.nl/sps/journals/call.html>

An international journal published quarterly by Swets & Zeitlinger Publishers.

Computer Assisted Language Learning is an international journal dedicated to all matters associated with the use of computers in language learning. It provides a forum to discussions on discoveries in the field and the exchange of experience and information about existing techniques. The Journal is wide-ranging and embraces a multitude of disciplines. Example areas of inquiry include: pedagogical principles and their application, observations and evaluation of CALL software, the application of Artificial Intelligence to language teaching, computer-assisted translation, multilingual learning systems, and computer-based learning environments. The audience for the journal is teachers and researchers, linguists, computer scientists, psychologists, and education professionals.

Books

Bush, M. (1997). (Ed.). Technology-Enhanced Language Learning. Chicago: NTC Publishing.

This edited collection looks at many forms of technology from e-mail to interactive videodiscs and how they are currently being used in foreign and second language instruction. Of particular interest are discussions on the ways technology can assist language learners and reasons why technology isn't being used to its fullest potential in the field of language learning.

Levy, M. (1997). Computer-assisted language learning: Context and conceptualization. New York: Oxford University Press.

A summary of CALL research that attempts to explain why CALL is where it is today as well as where it is headed in the future. Examination from an interdisciplinary perspective, an instructional theory approach, and in terms of software and hardware issues.

Levy also includes a CALL survey designed by him and administered to higher education language instructors from over 23 countries. The purpose of this survey was to better define CALL, understand how it is currently used, determine how it is viewed as a methodology/approach, and ascertain where the methodological and developmental problems exist in order to alleviate them.

Pennington, M. (1996). (Ed.) The power of CALL. Houston: Athelstan Publishers.

Pennington's book is divided into 3 sections treating CALL research, different types of technology associated with CALL, and language skills areas that CALL can be of benefit to. Each chapter is written by a researcher or practitioner that specializes in that particular area. The collection emphasizes the benefits of CALL and how it can be used to improve the field of language learning.

Sperling, D. (1998). (2nd Ed.). Dave Sperlings's Internet Guide. Upper Saddle River, NJ: Prentice Hall.

Dave Sperling of the famed “Dave’s ESL Cafe” on the world wide web has put together a practical, hands-on guide to the Internet for ESL/EFL professionals. The book is intended for use by beginners to the Internet as well as a resource guide for professionals seeking everything from lesson plans to job-hunting.