Modern Technology in Foreign Language Education: Magic or Myth?

by

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SENIOR HONORS THESIS

Submitted in Partial Fulfillment of Requirements for the
College Scholars Program
North Central College

May 31, 1996

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Picture a world in which all education takes place in the comfort of your own home. Every member of the family has their own personal teacher who provides important information in a fun and exciting format. Children no longer dread sitting still for countless hours while they learn tedious facts and figures. Adults also take advantage of these flexible teachers by learning a foreign language because they make it so easy and profitable. After all, businessmen could then communicate directly with their new partners around the globe. In contrast to the vision of the slave-driving teachers that we had as children, our new teachers are patient, kind and fun, and there is even one for each student who is well versed in anything we would want to know.

Picture the world that will be created as the in-home teachers become more widely used. Students will never have to interact with each other on a day to day basis because their teachers will do it for them, and there is no real need to remember pages and pages of important information because your teacher can provide you with all pertinent information at a moment's notice. All business transactions and work could be accomplished from the comfort of home through the teachers who communicate with each other. This is the world in which education is left
up to the students. No matter what their age is, what they want to learn and when they learn it is governed by them. The necessity to master business or science skills almost vanishes as the personal teachers are always available for consultation. Therefore, your valuable time can be spent on more fun and interesting things, like talking to your pen-pal in Sweden about the upcoming ski season. Adults and children alike will be at ease with the ability to communicate in any language through their own personal teachers who will remain with them forever. These future ‘teachers’ are today’s computers.

This is the picture that many teachers and parents fear when confronted with the idea of using computer technology to enhance the curriculum. David Gelernter contends that “educators should learn what parents and most teachers already know: you cannot teach a child anything unless you look him in the face” (15). Others discount the value of computers because one cannot save a troubled school from overcrowding and lack of security by spending even more of its precious funds on computers that the students or teachers will not know how to use (Conte 923).

What is continuing to promote this horrid picture of the future is the fact that there are so few studies on the effects of educational software
on the learning process, especially research concerning adults' foreign language acquisition. There are some studies to be found concerning the education of primary school children, and many of those are focused on first or second language learning strategies. However, the language learning process for children is greatly different from that of adults and, therefore, there are no sweeping generalizations to be made concerning the effectiveness of computer-assisted foreign language learning at the university or college level.

Yet there is a need to look at the alternate situations in which computers can be used to enhance the foreign language curriculum. Many other disciplines are finding that technology is helping to bring life into otherwise dull classrooms, and sparking new interest in students. Even Mr. Gelernter admits that computers "have the potential to accomplish great things. With the right software, they could help make science tangible or teach neglected topics like art and music" (14). Foreign languages would also be included as one of those neglected topics, seeing as American students are way behind their global peers in multilingual ability. Moreover, Harvey Long, consultant to the American Federation of Teachers is noted as saying "Eighty-five percent of all jobs today at a minimum involve technology, so technology is a very important curriculum
issue" (Szabo and Hotch 65). Hence, there is a double-sided concern for American students to become more comfortable using technology as it is becoming increasingly important in everyday activities, and also for them to become more multiculturally aware since cultural diversity is also becoming common in any line of work. Consequently, the focus of this paper is on the advantages of computer-assisted foreign language education at the college level.

**Why Study a Foreign Language?**

The study of foreign languages in many colleges and universities has taken a secondary seat behind fields such as business, engineering and computer science. There is often — but not always — a requirement to study a few terms of a foreign language, yet it is rarely understood what purpose a foreign language can serve to the business or science major. Students sit through the endless monotony of pattern drills and vocabulary quizzes contemplating their purpose of being. But even a basic knowledge of another language can help to boost the international awareness of every student. Two high school principals in Ohio remark "If we are to regain a leadership role in today’s global community, we must speak their languages!" (Robertson and Gilliam 2).
Regardless of the major field of study each student intends to pursue, there are always opportunities to communicate with people of other countries and cultures who could contribute to the world of knowledge. But if you cannot talk to them, you cannot find out what it is that you could learn from them. Myriam Met, Foreign Language Coordinator for Montgomery County Public Schools in Maryland, observes that “Young students [in the U.S.] are so far behind their peers [abroad] in learning foreign languages that the United States cannot even be included in international assessments of foreign language performance.” (Met 86). Hence, there is a great need for American students to catch up with their foreign counterparts in becoming multilingual and cross-culturally aware.

How do we learn a language, anyway?

The study of how one learns a language can give great insight into what sort of technology can be best utilized to strengthen the learning process. Recent research has shown that the same part of the brain which allows us to speak our native language is also the processing site for the second language activity (“Brain’s singular way” 202). This information suggests that teaching methods which closely resemble the way in which we first learn language would be most effective in second language
education. Children learn to speak through constant exposure to the native sounds of the language and the context in which the language is used. Infants and young children have an amazing ability to learn language very easily, and at this critical period in development could learn two languages at the same time just as easily as one ("Double or quits" 84).

However, adults use different cognitive methods when acquiring a second language. Deborah Fitch points out that in her 1974 study Susan Ervin-Tripp "claims children learn language in a tangible, immediate context, while adults tend to learn in an abstract context and have a greater capacity to remember explicitly stated grammatical rules" (33). So there is a discrepancy in arguing that adults should acquire second languages in the same manner as children first acquire language. Should there be more total immersion programs for adults in which they are subjected to an atmosphere where only the target language is spoken and the social context of the target country is simulated? Or should language teachers revert back to the old grammar-drill format?

The answer, I believe, is a position just in the middle of the two extremes. To appease the adult cognitive desire to have explicitly stated grammatical rules, there should still be a traditionally formatted curriculum in which grammar drills and vocabulary quizzes are put to use.
However, there is also a need to provide an *authentic experience* for the adult students so that a connection can be made between how to form a structure and how that structure is used. As stated in a study on whole language content in second-language acquisition by Lim and Watson, “learners develop second-language fluency by using language authentically for purposeful tasks necessary in learning meaning-filled content” (384).

One might ask, “What is an *authentic experience*”? As found in the nearest Webster, *authentic* can be defined as “that [which] is in fact as represented; genuine; real.” (92). And the same source tells us that *experience* can denote “the act of living through an event or events; personal involvement in or observation of events as they occur.” (478). Hence, an authentic experience is the act of living through or having personal involvement in a genuine event. The events and happenings of our everyday lives are not so noteworthy to us, yet they are an object of intense study for students of English as a Foreign Language (EFL). These trivial events are source clues into how we use our communicative skills and what effects they have on other people. What we wear and how we walk are all expressions of our culture and, in turn, show other people who we are. Thousands of people every day watch American television, visit the local mall, or attend an American school to find out what makes us
tick. By following their example, we can do the same to learn all that we can about the other languages and cultures of the world. "Students who are involved in natural, authentic, and content-rich settings will develop the language and concepts of the content while developing literacy and oracy skills." (Lim and Watson 385). This is where modern technology can be highly effective to foreign language teachers.

**The Role of Technology in Foreign Language Education**

Essentially, a student may know exactly how the language is spoken grammatically, but without practical experience knowing the appropriate time for a particular response is very difficult to learn. Most students of foreign languages go through several years of book study before being able to travel to the target country to get the tangible experience that they need to become fluent. Moreover, many grammatical points in a foreign language are very difficult to understand unless there is some cultural background to accompany them. Providing this authenticity to the foreign language atmosphere is a possibility that many colleges and universities are beginning to realize by using video, audio and multimedia software in their language resource centers.
Through the use of technology, teachers can furnish their students with appropriate authentic input that will help to make the learning experience both more enjoyable and more effective. In the past, language laboratories were rooms of workstations containing cassette recorders with individual headsets. Although by today’s standards this would hardly seem to be considered modern technology, at that time it was a revolutionary change to be able to offer oral help outside of the classroom by supplying the students with pre-recorded tapes containing joyful hours of endless drills. Of course, as it turned out, the mere cassette tape is not enough to stimulate the minds of students.

These days video tapes, satellite broadcasts and multimedia software can all provide visual and nonverbal information about the target culture and society that a teacher cannot describe in class. And they are all simple enough to understand by both student and teacher. Even by passively watching a film a student is gaining information concerning the layout of the country, the type of clothes traditionally worn and other social cues they may not even realize they are learning. But now teachers also have the opportunity to get their students involved in discussions in the target language about differences they see by watching such films. Many schools, including our own North Central College, have satellite
dishes that receive live television broadcasts from around the world. Most schools have extensive sets of video and audio tapes recorded in the target country to give the students a chance to hear genuine speech. All of these are designed to provide more chances of up-to-date authentic materials for our youth to consume.

Yet the most helpful and currently popular technological tools are the multimedia systems and software. Multimedia systems are comprised of a microcomputer which controls a random-access laserdisc player and monitor. When considering different types of "Videodisc System Interaction," these kind of systems are considered to be the Level 3 (the highest level) hardware, as stated by Maj. Bush and Maj. Crotty of the U.S. Air Force Academy (79). Such stations can be used for interactive software that allows the student to witness authentic scenes from the target country by watching the laserdisc monitor, while interacting with the computer to control what is being shown.

Each of these different mediums can be utilized by the students and the teacher by making them available in the college's language laboratory. Unrestricted availability to students allows them to use the programs at their own convenience, giving them more time to explore and have fun with the material. Teachers would also have this same freedom of
availability for experimenting with the software to create lab assignments that would be highly rewarding and enjoyable to the students.

Although the image of the language lab has in the past been less than wonderful, it is important to provide an area for out-of-the-classroom work for several reasons. For the students these materials can be available whenever the lab is open, or in the future, schools can provide remote access to foreign language software through a network connection in dorm rooms, thus making study more convenient for their schedules. And the lab is also providing extra help for students without the extra time and preparation on the part of the teacher. Although personal attention is always the best cure for seemingly incomprehensible homework, the usage of the school's language laboratory can perhaps give the students a better opportunity to experience first-hand in which situations the new material is encountered and how it can be understood.

One last reason that can sometimes be an issue is the shyness of the student. Many potentially good students are swallowed up by the system because of their fear of making mistakes in front of other, more knowledgeable people. With computer programs, these students can receive the instruction they need in an impersonal atmosphere in which they will not be judged by the number of mistakes they make. Professor
Roger Schank of Northwestern University's Institute for the Learning Sciences was quoted as saying, “The greatest value of computers is that they will watch out for you and let you do stuff without fear of embarrassment” (Reinhardt 52).

**The Technology Parade**

When one thinks of modern technology, a vision of computers and word processors is usually the first image conjured up. Though computers and word processors are certainly members of the technological family, there are several other types of equipment that qualify for this field. Video tapes have often been used to provide visual examples of authentic situations in the target language. Usually presented in class, they can also be left in the language lab for students to review on their own time, or to complete an assignment that accompanies the scene. These videos are commonly recorded in the country where the target language is spoken regularly in order to reveal context and setting, making the material easier to understand.

Actually seeing the scene in which grammatical material is used can raise many issues for the student. There is the obvious example of the new material, but there is also a wide range of cultural issues that can be
addressed in every scene. For example, when a student of Japanese first learns the proper way to introduce himself, there are many questions that plague him. The Japanese are very traditional people and they follow strict social rules when making initial introductions which cannot simply be memorized. To Westerners, the introduction ritual seems too formal and highly unnecessary. However, the Japanese feel that all things and people have a place in society and that it is necessary to show the proper respect to others who may have a more influential social station. This practice of honoring others is very difficult for Westerners to grasp, and ordinarily can only be really understood by watching or participating in events which offer opportunities to experience it as it occurs.

In addition to video, the teacher may have the option of using live satellite transmissions for more examples of genuine culture. Even small private colleges can afford a satellite that will pick up the transmissions of other countries. Since television is such a large influence on our own culture, students will often want to see what television is like in their country of study. What other cultures find humorous is often a starting point for attracting attention from foreign language students; typical television dramas are also popular. For example, practical jokes are often the center of comedy acts on Japanese television shows. However, what
they find to be funny, many Americans find to be physically dangerous. (The example I have in mind was played on one of the hosts of the show; he was led to believe that one of the other actors had died as a result of a previous prank on the show.) These types of programs, although sometimes not so entertaining, help students to learn how to express their emotions in the target language by learning idiomatic expressions that are commonly used. An interesting exercise is to analyze the commercials that are found on TV in the target country, looking for differences and similarities with respect to our own advertisement style. After all, advertising strategies are based on what is socially appealing. Commercials and magazine adds provide contemporary portrayals of the likes and dislikes in a culture.

Satellite television also provides the student with authentic speech that is not adapted to the novice learner. The student is forced to use his reasoning skills to understand as much as possible given the context of the situation even if the vocabulary is new. In most cases, the student is able to at least get a general idea of the topic of conversation by listening for familiar words and reading the body language of the actors involved. The student learns to understand the body language of the other culture, which can sometimes vary greatly from what we are used to, and he also
picks up socially accepted action and reaction patterns of the target culture. Thus it is preparing the student for any future experiences in the target country or with natives from that country.

Additionally, computers have made a major contribution to the modern language laboratory. There are many different programs available to educational institutions which are designed to enhance the foreign language learning experience. There are authoring programs available, such as one called Dasher Authoring System, which allows the teacher to create custom drills that accompany any other material used in class. In our own college, several of the foreign language professors use this program to supplement their homework assignments since many of the students prefer doing drills on the computer rather than on paper or in class. One of the best things about this particular program is that it can be used for several different languages, such as French, Spanish and German. And many textbooks are now released with similar drill programs, allowing the teacher more time to spend on creative lesson plans and grading homework.

Other programs are released independent of texts hoping to strengthen the foreign language curriculum. For example, there is a Japanese program called Hyperactive Hiragana which is designed to teach
the first writing system of the language (Collins). It follows a flash card format with creative pictures in motion to illustrate meanings of new vocabulary and provide mnemonics for the student. There are also periodic quizzes, which are randomized each time, and a final quiz at the end, which can be used as a good review for the student who has already mastered the material. The program uses a lot of repetition to impress the material into the long-term memory of the student, and also uses fast-paced quizzes to help internalize and increase speed of the correct responses. Programs based on a flash card/quick response format are also able to help students learn to anticipate sentence structure. By randomizing different but similar questions, the program forces the student to look for immediate differences in the patterns to be able to answer as quickly as possible.

However, despite all of the other options already presented, the multimedia system is perhaps the most exciting and useful equipment yet. As stated earlier, the most advantageous type of multimedia system consists of a videodisc player with a display connected to a microcomputer with a monitor and keyboard and/or mouse. With this type of set-up a language lab is then equipped to run programs such as À la Rencontre de Philippe — an interactive French program that requires the
student to actively participate in order to win the game (Murray). The videodisc contains actual footage filmed in Paris to provide an authentic setting for the action of the game. By seeing the footage from Paris, the student is exposed to the French atmosphere: including what the buildings look like, what people wear, how they talk on a conversational basis, and more. The student is first introduced to the characters by watching the video monitor and seeing short clips of each person. Through the computer the student can then interact with the characters and help them to solve their problems. Philippe is in danger of losing his job, and is also fighting with his girlfriend. The student must help Philippe to find a new apartment by looking through the newspaper and visiting a local real estate agent, while relaying messages to him by listening to his answering machine and making a few phone calls.

All of these activities are practiced everyday in real life. They are functions that would be required of the student if he or she were actually studying in Paris. Thus, the first bridge is crossed before ever entering the target country, that bridge being the question: "Can I Actually Do This?" Self-confidence when learning a language is perhaps the best tool and the most difficult to teach. If students possess the confidence to struggle through any confrontation by utilizing the tools they are given in
their courses, then those students will also have more opportunities for interaction in the target country and have a more beneficial experience overall. They will have the ability to take the few things that they know and use them to find the information they are seeking. In addition, the interaction they have with the characters in the program will provide them with a basic range of knowledge of how people in France will react to certain statements or responses made by the student, how to ask common questions, or how to make small talk in conversations. Nevertheless, a teacher cannot simply instruct a student to obtain this self-confidence. It comes through self-discovery and safe opportunities for the student to test the waters and find out that: “Yeah, I really can do this!”

The list of advantages of such programs is long indeed. Not only is the story interesting to the student, but he also has the opportunity to interact with the characters in their native environment. The student is confronted with conversational language spoken by a native, and also with an authentic setting through the footage displayed on the videodisc. There are opportunities to explore the apartment, make phone calls by typing messages into the computer and read a newspaper. The computer also provides transcriptions of the dialogues for those who cannot follow the
spoken conversations and gives the option of showing translations (which the teacher can control through the functions manager).

In such an environment, the student is given the opportunity to learn through authentic interaction with the computer. And the student also learns by seeing an authentic setting; understanding the context of the language is sometimes half the battle of comprehending the structure. These are valuable opportunities that cannot be provided by the foreign language teacher alone, nor should the teacher be expected to transport the students magically to the target country. Programs such as these, although costly, can enhance the language learning experience for students by taking them beyond the grammar drill stages and giving them real situations to observe and interact with. They also help the foreign language teacher by providing quality work outside of the classroom that requires little extra time for preparation.

**Finding the Appropriate Role for Educational Technology**

Despite the different types of software available, there is still resistance to taking advantage of the modern language laboratory. Some people still believe that knowledge is simply something that is taught
from books, and that students can only be inspired by a living teacher in front of the classroom (Conte 932, 937). Many schools have well-equipped labs that are not used to their full potential, and some don’t even have the equipment at all due to lack of funding. Financial concerns are difficult to contend with when additional money for new equipment is just not available. However, it is important to consider the great advantages of modern equipment before discounting the numerous possibilities completely. Awarding money to a technology fund to be used in the future for improvements in the school’s curriculum could be a way of reminding parents and teachers of the importance of keeping up with the technology field.

All over the country modern technology is being used in new and exciting ways to help enhance the learning experience. “Schools are moving away from the ‘sage on stage’ approach to teaching, where a professor in front of a blackboard lectures for an hour to row upon row of students” (Lee 28). Supporting this shift in educational strategy, cognitive psychologists Bruner, Piaget and Papert are cited as finding that “Learning requires the motivation and active participation of the student; intuition, defined as the formation of educated guesses, is an important part of learning...” (Conte 935-6). High schools and colleges alike are
discovering the advantages of using computers in their classrooms to promote the active participation of their students in the learning process. Students in Maryland are using access to the Internet to research science projects by conversing with specialists on the subject (Conte 923), eighth-graders in Idaho are creating their own American history multimedia CD-ROM (McCartney 22), and biology students in California are exploring the evolution process using a program called Mystery Fossil (Matray and Proulx 513-4). Students who had problems in traditional high schools in Tempe, Arizona are also learning from computers rather than from teachers at the Arizona Career Academy. Most of these students feel that the computerized format is more comfortable to them because of the depersonalization and infinite patience of the terminals (Ortega 29).

Moreover, technology is being used by students of French across the U.S. to talk with each other through e-mail, giving them opportunities to practice their skills and be exposed to new vocabulary and idiomatic expressions (Lee 28).

In all of these situations computers are being utilized in unique ways to help students learn new material and gain confidence in their ability to use technology for more than just video games. Fortunately, the educators who are given the opportunities to use technology in their
classrooms realize that computers "can't be the end-all and be-all" of their curriculum (Ortega 29). In his article concerning the effectiveness of educational software, Neal Templin writes that "studies also show that computers work better in certain situations than in others" (24).

Although educational software seems to be heaven sent for many teachers, there is such a thing as misuse of technology. While the teachers can reap the benefits of having more free time thanks to the pre-programmed drill programs on the schools machines, there are extreme dangers to binding children to too much technological exposure. Teachers and parents alike still have a responsibility to their children to teach them how to interact socially and to avoid confinement to their own personal world on the nearest IBM. Especially when considering foreign language acquisition, it is important that students of all ages be properly socialized in their own culture before trying to handle the stress of learning to cope with the demands of another.

Herein lies the greatest challenge for the distributor of knowledge. A teacher, given the appropriate equipment and substantial software, must then integrate that software into the curriculum without placing too much of an emphasis on either extreme. To do this the teacher should have an extensive knowledge of both the hardware and the program being put to
use. Moreover, the educator needs to create engaging activities that involve the programs and also integrate the material that is presented in the text. Many teachers dread having to do this because of the amount of mental strain that it can entail. Having to look for creative links between the text material and the software available can take countless hours of work. Some teachers wish they had the time to develop their own textbook materials that revolve around the software — avoiding problems of conflicting information but still consuming enormous amounts of creative energy. However, integrating software into the already existing curriculum and developing a completely new approach to teaching are both extremely time consuming.

Despite the moans and groans of the teachers who would simply return to the ‘sage on stage’ approach to education, schools can do some things that would help make this kind of curricular alteration less painful for the staff. Bill Tally’s article on “Developmental Training” points out that the current technology training programs are lacking in longevity. The technical support is simply not there long enough for the teachers to get a firm grasp of how the equipment operates. Tally also notes that in most training sessions pedagogical support is almost non-existent. If the hardware is new to the teacher, it will take quite a bit of time and
patience before he or she could begin to become creative with the new technology. Tally cites a national survey which reported that competent computer users said it took them nearly five years to fully integrate technology. In an answer to these concerns, schools should provide a long-term technological and pedagogical support program. This would meet the needs of the teachers by having staff to show them the in’s and out’s of the equipment, and also offer sample programs to demonstrate the capability of the equipment with regards to educational needs.

Although staff development and training will become the big issue behind technology integration, it is important not to forget this: Technology alone can do nothing to improve the quality of instruction in any field. It is simply a tool that will enhance the experiences of the students. Templin sites an experiment done by Mark Miller and William McInerney testing the effectiveness of a computer program when not supplemented. Miller and McInerney found that there was almost no difference in achievement between students who used the program and those who didn’t. Mr. Miller states “If people think they are going to put technology in and raise their test scores, technology alone will not do that.” (Templin R24).
Conclusion

There are many reasons and methods for using technology in education. I have provided several realistic examples of how technology can greatly enhance the foreign language curriculum through appropriate software, sufficient staff development and a bit of creativity. Given the potential success in the foreign language field, it is natural to assume that technology can be implemented in almost any subject to make teaching and learning more enjoyable and effective for everyone involved. The newly established Music Education major here at North Central College has also made use of technology by providing its students with Macintosh computers which contain music exercises and composition programs.

Foreign language education could benefit immensely if all schools were to utilize modern technology. There is often a lack of native speakers in uncommonly taught languages to demonstrate genuine usage of the language and provide insight into cultural differences. And, especially at the college level, foreign language education is often dismissed as being irrelevant and superfluous. But with the new advances — i.e. satellite programs, multimedia software and video — teachers will have an easier time finding the authentic materials that will spark interest in
their students, add adventure to their classrooms and strengthen their curriculum with regards to other departments on campus. By using a variety of materials, students may find connections between their foreign language study and other fields of study they pursue in college. For example, by watching a daily news report from Germany, an international business student may develop a project that investigates the business activities of the U.S. and Germany. Such a project would bring together two different disciplines and the student would have the ability to use first-hand evidence by being able to understand the original German newscasts, thus eliminating the need for possibly misleading translations.

Evolution and change are inevitable. Without both of them we would still be scratching drawings into the side of a cave and cooking by open fire under the stars. Although this may sound enticing to many people (myself included), it is impossible to ignore the progress made by society. And when change comes about, it is important for educators to adapt or to be supplanted by those who do. Cornelia Brunner and Katie McMillan of the Center for Children & Technology in New York make the following observation:

Real advances in student learning depend on changing what teachers expect their students to know and do, how they organize
their classrooms, and how they revise their curricula to facilitate new learning. Technology can support these changes by making new resources available, but by itself it cannot make these changes happen. (22)

I have found no truer statement in all of my research on the topic. Teachers still have the authority to govern what and how their students learn, and it is still up to them to keep themselves up to date on the leading edge of new information, for if they do not, they would have nothing to teach that would be useful to their future students, young and old alike. The great “technology in education” debate will continue for some time, but technology itself will definitely not fade away. And the longer we wait to integrate it into our curricula, the harder it will be to adapt for people on both sides of the power cord: students and teachers. And, of course, there is the old saying “you won’t know if you like it until you try it.”
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