DOCUMENT RESUME

ED 419 407 FL 025 250

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TITLE Computer Assisted Language Learning: A Shortcut to Proficiency?
PUB DATE 1997-00-00
NOTE 13p.
PUB TYPE Reports - Research (143)
EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Administrator Attitudes; Adult Students; *Computer Assisted Instruction; Computer Software; *Courseware; Higher Education; *Instructional Effectiveness; Instructional Material Evaluation; Instructional Materials; Language Proficiency; Language Teachers; Second Language Instruction; Second Language Learning; Second Language Programs; Student Attitudes; Teacher Attitudes
IDENTIFIERS *Computer Assisted Language Learning; *EXITO

ABSTRACT

A study investigated the attitudes of language program students, teachers, and administrators concerning the effectiveness of Computer-Assisted Language Learning (CALL) instruction for adults, and specifically concerning EXITO courseware, a Spanish language program developed by the Central Intelligence Agency. Interviews with an adult language student who is an officer in a federal agency, a courseware evaluator, a corporate human resources officer, and a college language teacher explored individual experiences with CALL in general and the EXITO program in particular, focusing on whether language instruction can be effectively transferred to technology, the role of human interaction in language learning, and whether CALL is more sustainable than most language teaching approaches because of its multimedia nature. It is concluded that CALL's effectiveness can be enhanced by development of pedagogically-based courseware, integration of courseware into existing curricula, investment in teacher training, balancing live instruction and CALL, and recognition of the importance of the human element in all forms of training. (Contains 6 references.) (MSE)

COMPUTER ASSISTED LANGUAGE LEARNING: A SHORTCUT TO PROFICIENCY?

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ABSTRACT

This paper invites open discussion on the role of computer courseware in the foreign language classroom. Specifically, it tracks the relatively undocumented success of a program called EXITO, a Spanish course developed in the mid 1980's by the Central Intelligence Agency (CIA) of the United States for use by its operatives. The author, a language teacher, in addition to being the head of a language school in Washington, DC which specializes in proficiency based language training for adults, interviewed individuals from a variety of backgrounds; students, instructors and administrators, alike. Each of them has had varying experiences with computer assisted language learning during the past few years. Their opinions, while anecdotal, provide sufficient stimulation for discourse. This is especially true given the absence of any documented, formal evaluation of the courseware and its ability to provide a shortcut to the acquisition of language proficiency.

It is certain that computers will have a place in all well constructed language curricula of the future. Likewise, it is clear that "that place" cannot be left undefined. On the contrary, it is incumbent upon educators in all sectors, private and public to be active in shaping the role of computer assisted language learning, from the design and content of its courseware, to the training of its users.

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INTRODUCTION

This paper establishes a framework for discussing the role that computer assisted language courseware has played (and will play) in facilitating the acquisition of second language proficiency for the adult learner at the university or in a private, professional setting. Although several multimedia language learning courses are on the market today, this paper will focus exclusively on the products developed initially by the Central Intelligence Agency (CIA) of the United States in the mid 1980's for use by its operatives, later adapted for more general applicability by the U. S. Federal Language Training Laboratory and recently (1994) made available for commercial use.

BACKGROUND

In 1992, Analysas Corporation, a private company based in Washington, DC, was the recipient of a Cooperative Research and Development Agreement (CRADA) under the Federal Technology Transfer Act of 1986. The purpose of the CRADA was to transfer federally sponsored technology to the private sector thereby enabling private organizations to gain access to high tech products, at affordable prices. Specifically, this CRADA agreement was established with Analysas Corporation for the sole purpose of developing and marketing state-of-the-art foreign language training courses utilizing a government developed (and tested) instructional methodology.

Four courses were subsequently created: EXITO for Spanish, and C'EST TRES FACILE, for French (These two are currently available in a five CD-ROM disk set and include 40

hours of instruction). KHOROSHO, for Russian and a comparable Arabic course called AL-MUMTAAZ, each of which incorporate 60 hours of instruction, and are being made available in a CD-ROM format as this paper is being written. The commercial requirements for second language acquisition among adult learners in the United States is strongly skewed in favor of Spanish. Consequently, it comes as no surprise that of the four courses developed, EXITO is the most widely known and has enjoyed the broadest distribution. Accordingly, this paper will track EXITO as a prototype of a legitimate, well developed, multimedia language course designed for adults who are seeking language proficiency as a goal. It will serve as the basis for more general discourse about the pros and cons of the medium as a whole, as well as provoke discussion of the special and unique challenges of using computers to teach a second language to a mature student.

One important caveat must be stated at the outset, and that is, that notwithstanding the above, there is no empirical body of research available of a valuative nature. Therefore, most of the comments concerning users reactions to EXITO is anecdotal.

DEFINITIONS

A distinction must be made between audio/video software programs such as DESTINOS and FRENCH IN ACTION, and multimedia courseware, such as EXITO. The former programs are not supported by an underlying pedagogy and therefore cannot be considered as a language course. Rather, they are tools, albeit technological ones, which assist in vocabulary building, verb drills and other mechanical exercises. The latter, on the other hand, is solidly based on the Krashen and Terrell pedagogical theory of the "natural approach" (Krashen & Terrell, 1983) to language acquisition, and accordingly, offers the requisite structure and organization of an introductory language course. The singular, dramatic difference between

EXITO and a traditional Spanish 101 course is that instead of a textbook, a computer program is used by both student and instructor for the entire course.

When citing language proficiency levels this paper will follow the ratings of the U. S. Federal Interagency Language Roundtable (FILR) which has established proficiency ratings from 0 to 5 in each of the four skill areas (speaking, reading, writing and listening) . The ratings begin with the "no proficiency" 0 level and end with the "educated native" 5 level. Most learners in the Federal system (CIA Language School, the State Department's Foreign Service Institute (FSI) and the U. S. military's Defense Language Institute (DLI), to name a few) aspire to reach an intermediate level of 2, or preferably, 3. In other words, a "limited to general working" proficiency level. In speaking, the 2 level indicates that the student is "able to satisfy most work requirements with language usage that is often, but not always, acceptable and effective." The 3 level indicates that the student is "able to speak the language with sufficient structural accuracy and vocabulary to participate effectively in most formal and informal conversations on practical, social and professional topics."

CHALLENGES

Despite over 40 years of documentation provided by linguistic experts at the U. S. Department of State's Foreign Service Institute supporting the evidence that in order for an educated, adult learner to acquire language proficiency at the desired levels he/she must spend the requisite number of hours of contact time in the classroom with an instructor (150 hours of Spanish to attain FILR level 1, for example), the pressures of cost-cutting have driven institutions, private as well as public, to seek alternatives to live instruction. Thus, the seriousness of the consideration being given by educational institutions, of all kinds, to computer assisted language learning courseware. Although there may not be a quick and

painless way to acquire language proficiency, there may be some efficiencies of time and effort which technology can and will afford us. As with any new technology, humans must find the best method of integrating it into their lives so that it performs the desired function. In the case of computer assisted learning, the word "assisted" must be underscored. The computer and its courseware cannot operate independently of deliberate and thoughtful human supervision. Consequently, one of the challenges we face is in setting our expectations at an appropriate level. The success of language instructors will be enhanced or diminished according to their skill at manipulating computer assisted programs in an overall syllabus. Likewise, the success of the computer courseware may be contingent on its integration into a fully developed syllabus of live instruction.

QUESTIONS

The technology is exciting; even compelling, sometimes addictive, but is it effective? Is there something imponderable about the very nature of language learning which causes it to be difficult to transfer to a technologically based instructional program? Or is it the intrinsic human element of language acquisition which ordains that it is best transmitted human to human, as in mother to child in the case of the "maternal" language? When it comes to language acquisition will the computer be relegated to the dark and musty language laboratories of the 1950's and 60's? Or does the interactive, multimedia aspect of these new programs make them more sustainable?

Computers are used today very successfully in a wide variety of training situations. One particular, felicitous example is that of flight simulation training which has enabled aviation schools to train more pilots, more rapidly, more effectively and much more cost efficiently by using computers than by relying on live instructors. Why? What is the difference

between teaching how to fly an airplane and teaching how to speak Spanish?

DISCUSSION

Rather than to put forward answers, right or wrong, to the questions posed above, this paper will offer the insights of a sampling of individuals informally interviewed by the author; students, instructors and administrators alike. Their comments have provoked more questions while at the same time providing some answers. There is, nevertheless, an emerging consensus that the most desirable course of action is one which includes the conscious development of an optimal integrative strategy which encompasses a triad of student, computer and instructor.

INTERVIEWEES

Mr. J. Brooks Spector, officer, United States Information Agency, student of Japanese at Language Learning Enterprises, Washington, DC. Mr. Spector has studied 5 languages (including 2 Asian languages) in addition to English, his native tongue, over the past 40 years. He has been exposed to a wide range of learning environments, methodologies and instructional techniques. Furthermore, he has had to "subject himself" to the process of language acquisition at varying stages in his life. He brings to this discussion some insights into the practical and human sides of the equation. He begins by making a clear distinction between the child and the adult learner: the former is "natural and intuitive" the latter craves "rules and is non-intuitive." The literate adult wants to understand the rules governing the patterns he/she is asked to replicate. There is less flexibility to his/her application of the patterns, few random choices are exercised and there is often resistance to feedback. Children, being natural in their approach are unlikely to question, or even care about, the underlying grammatical structure to the pattern being replicated. They are also uninhibited

and willing to try different applications of the pattern, even at the risk of creating nonsense. Children are very open and susceptible to feedback, both negative and positive.

So, if we examine the compatibility of a computer assisted course and an adult learner we are faced first with the problem of how to satisfy the student's need to understand "why do they say it ***that*** way in Spanish?" The monitoring of a live instructor becomes essential at this point. It would seem obvious that any successful computer assisted course would include frequent and predictable contact with a trained and qualified linguist able to provide the student with enough understanding to allow him/her to progress. Likewise, the presence of the instructor will encourage flexibility in application, random selections and offer appropriate feedback.

Mr. Spector makes a second distinction between the successful application of computers in teaching adults "unexpected" patterns such as in pilot training, where the learner is allowed to fully interact with the tool, and in the yet to be determined, success of computers in teaching "expected" patterns where the learner is limited in his/her ability to interact with the tool. Mr. Spector's example was teaching the simple word: Yes, Yes? Yes! Only the live instructor is able to respond to the full range of human expression.

A third insight into the challenge of teaching language via computer is the verbal/oral complication. How well does the computer course elicit oral response from the student? How does the computer interact with what the student has done? What does it do to correct what has been done, or more importantly, adjust what has been done? A fourth concern is the issue of a "reward structure". In language acquisition this process is counter-intuitive. When a language student has mastered a pattern he/she has not "landed the plane" as the pilot in training might have. On the contrary, the reward for mastering one linguistic pattern

is most likely the introduction of a more difficult pattern to learn. This idiosyncrasy imposes a special burden on the language instructor who has to find other ways to motivate and encourage the student. Good teachers "ratchet up" as an incentive, not to create frustration. How does a computer satisfy the learner's need for motivation without frustrating him/her? Lastly, Mr. Spector commented on the essence of language acquisition and its primary goal of enhancing communication between people. "It does not happen in a vacuum. Language is open-ended, branches of it can be approached at any time." The role of the language course, therefore, must be to more closely mirror human oral interaction to allow the learner the opportunity to imitate and gradually control the process.

Dr. Nina Garrett, Director, CTW Mellon Grant at Wesleyan University, Middletown, CT. Dr. Garrett was first introduced to EXITO by Analysas in 1993 when she was at George Mason University in Fairfax, VA. She agreed to accept the course as a pilot program and to conduct an independent study of its effectiveness. Unfortunately, it met with mixed results. Previously, in conducting her own informal research of a broader nature, (Garrett, 1991) she found conflicting studies of computer assisted language learning, in general, and absolutely no formal evaluation of its efficacy. Even anecdotal evidence is "inconclusive and/or contradictory." Dr. Garrett concludes that part of the problem may be that as institutions feel "forced" to use technology in the classroom they will use materials developed by computer "hackers" which contain no theory of second language acquisition. In other words, "same old drills in high tech format." She questions, consequently, whether the technology supports the "communicative act" since it does not contain any theoretical justification. Finally, Dr. Garrett addresses the conundrum "in the classic joke format; there is good news and there is bad news. The good news is that the technology does offer the potential for

enormous enhancement of foreign language learning. The bad news is that the potential cannot be realized....With or without budgetary or logistical constraints there is simply no such thing as an ideal configuration of hardware or an ideal set of software for language learners in general, and there probably never will be."

Mr. Lindley Nidever, Director, Human Resources, Occidental International Export Company, Bakersfield, CA, was direct and to the point when he shared with the author of this paper that his company purchased 150 copies of EXITO two years ago and that to his knowledge, "not one person has gone completely through the course." Clearly, any institution offering computer assisted learning courses to its constituents (students and/or employees) has a responsibility beyond simple installation of the program. An environment conducive to learning must be created which ideally includes an appropriate physical setting, easy and frequent access and, most importantly, the presence of an instructor.

The adult learners at Occidental International Export were motivated to try to acquire some Spanish proficiency. They proved this by attempting to take the computer course offered to them. Their universal failure to complete the course may be because the computer by itself was not a strong enough magnet to hold their interest. For the reasons explored above the computer is ill-suited to teach language proficiency unless it is integrated into a pedagogical framework which provides live instructional support. So, whereas many computer programs such as those used in pilot training, are perfectly designed for self-study, there is compelling evidence that computer assisted language courses are not.

Ms. Jane Lepscky at the Federal Center for the Advancement of Language Learning, Arlington, VA. Ms. Lepscky paints a brighter picture for the future of computer assisted language courses. Although she concedes that no one has conducted a thorough, unbiased

evaluation of EXITO, she points to a growing track record of federal agencies who have sent students through the 40 hour course who have emerged with FILR scores of 0+ (survival level) in speaking and 1 to 1+ in reading and writing. "There simply are no dollars available to fund an evaluation of the technology." On the other hand, she queries: "Did anyone worry about evaluating the effectiveness of audio tapes?" It seemed to be just common sense, "the more the student listens, the more the student hears. Does it not follow that with multimedia, the more the student listens, speaks and reads, the more the student hears, speaks and reads?" Ms. Lepscky votes a strong "Yes" in favor of the current and future value of computers in teaching language proficiency to adult learners. An article supporting her position is being published as this paper is being written. (Lepscky, 1997)

Dr. Kelly A. Nieves, Adjunct Professor of Spanish, George Mason University, Fairfax, VA. Like Ms. Lepscky, Dr. Nieves is optimistic about the future of the role of computers in the language classroom. In the Fall of 1994, as a follow up to Dr. Garrett's work, Dr. Nieves developed at George Mason University a Beginning Spanish Course using multimedia technology, EXITO, in particular. She subsequently wrote a paper on her experiences which was presented at Catholic University in April, 1995. (Nieves, 1995)

Using the traditional university model of Spanish 101, Dr. Nieves explained to her students that instead of meeting with her three times a week at a set time and place, they would meet with her once a week and spend the other 2 weekly sessions with the computer at any time, and virtually in any place (availability of personal computers being a factor in the flexibility). She noted some immediate positive bi-products of the experiment: 1) students were responsible for self-scheduling and they seem to truly appreciate it; 2) her planning time was greatly reduced since she was only meeting each class once a week and 3) fewer students

attended each session at a given time since there was such flexibility available to the students in their scheduling. Feedback from students was equally encouraging. Many found that the privacy of the computer helped them to build confidence. Since the computer is not time sensitive, students are free to practice, practice and practice some more, until they feel ready to perform for a live instructor.

A disadvantage of EXITO from the students' perspective was the lack of a textbook that they could readily reference to check a grammar note or verb tense. Dr. Nieves found that she had less contact with her students. This resulted in some impersonal interactions rather than in the warmer, more personal relationships she built with students she was meeting with three times a week. Overall, however, she believes that with the proper direction and mental attitude, (is the computer a threat or a tool?) computer assisted language courses can be successfully integrated into a curriculum. She cautions that they may not be a "budget salvation", but rather an enhancement to a good language program. The "rote, mechanical aspects" of language acquisition may become more lively through multimedia and therefore be more palatable to a new generation of "computer-age learners."

Finally, Dr. Nieves stressed that the decision to introduce computers into the language classroom cannot be a static one. The courseware cannot be simply bought and left on a shelf. In order for it to be successful, it must be fully integrated into the program of instruction. Furthermore, all instructors must be taught both how to use the software, and the hardware which drives it. Computer assisted courses in the hands of trained, competent and positively motivated instructors will find their rightful place in teaching language at least to minimum proficiency.

CONCLUSION

Although it is not the purpose of this paper to present any hard and fast conclusions to the question of whether or not computer assisted language learning can offer a shortcut to proficiency, it is this author's opinion that the chances for success can be enhanced by serious consideration of the following: 1) Development of courseware that is pedagogically based; 2) Integration of computer courseware into existing curriculum; 3) Investment in teacher training; 4) Assessment of the budget to allow for equilibrium between live instruction and computer assisted learning; and 5) Recognition of the human element in all training; the yearning for a personal touch.

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FL025250 A

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