In research and development it is not unusual to find the resources driving the instruction; this approach can be modified to a more acceptable one if the new technology is applied in such a way as to integrate sound instructional methods. Research and development personnel of the University of Victoria (Canada) Language Center often initiate software development in the form of prototype programs in order to test new hardware and software or to demonstrate what is possible with the newest computing technology. "The Princess Bride: An Adventure in ESL" is such a project. Incorporating video into computer aided language learning means the computer must be able to control the video disc. This project investigated the possibility of using Hollywood movies as video resources for multimedia ESL software. The script was transcribed and the movie was divided into more workable sections. These episodes were divided into various viewing, comprehension, and grammatical exercises. Language Center personnel found the program content to be too complicated for beginner and too simple for intermediate ESL students. The program was revised and then demonstrated in a "drop-in" multimedia lab so that students could use it as they wished. Results indicated the program was difficult to navigate and depended too much on computer instruction in a foreign language; it was boring; there was not enough feedback or interaction; and it was not an appropriate use of the resource. (AEF)
The Princess Bride™: Letting the Resources Drive the Instruction

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Abstract: This paper presents an example of the process used by our research and development team of evaluating technology and resources for use in Computer Aided Language Learning (CALL). One evaluative process is to create a real program then submit it to potential users - students and instructors - for assessment and criticism. In this case the team creates an interactive multimedia program for ESL using a Hollywood movie as a resource and, at the same time, tests an authoring package and experiments with a new development platform.

Introduction

The pitfall of letting the latest in glitzy technology become the driving force in Computer Assisted Instruction or Learning (CAI/CAL) is clearly articulated in the advice given by leaders in the field. Schwier and Misanchuk caution, "...as every instructional designer knows, the power of an instructional approach lies in the science and art of instruction - not in the technological components which comprise a hardware system" (Schwier and Misanchuk, 1993). However, there are situations in which a new technology permits access to materials for instruction that were heretofore inaccessible or difficult to incorporate into the teaching process. In these situations technology can and should inspire users (Ervin, 1993). In research and development it is not at all unusual to find the resources driving the instruction, a sort of we-have-a-new-CD-ROM-drive, let's-use-it-to-teach-French-verbs approach. This approach can be modified to an acceptable one if the new technology is applied in such a way as to incorporate sound instructional methods.

Research and Development personnel of the University of Victoria Language Centre often initiate software development in the form of prototype or sample programs in order to test new hardware and software or to demonstrate what is possible with the newest computing technology. In such projects, we choose the computing language, natural language, subject and platform. Occasionally the programs we have developed are immediately usable by instructors and students, but most often they provide template resources for other programs which are produced at the initiation of and in collaboration with foreign language instructors.

The Princess Bride™: and adventure in ESL is such a project. It was motivated by the availability of the movie on videodisc; our need to test the authoring program ToolBook™ and to experiment with multimedia on the DOS/Windows™ platform; the continuing search for new resources for language teaching; and the desire to interest ESL instructors in Computer Aided Language Learning (CALL).

Video is recognised as an excellent resource for language instruction (Terrell, 1993). Incorporating video into CALL means that the computer must be able to control the video device. While it is possible for the computer to control a VCR, it is unsatisfactory because of the inherent shortcomings of tape as a medium. VCR tapes have slow access time and sequential frame format. When tapes stretch, the timing codes must be updated. Videodiscs, on the other hand, are fast, almost indestructible, and each frame is immediately and directly accessible by the computer. At the present stage of development at the Language Centre, purchasing someone else's videodisc is preferable to
producing our own. With increased consumer popularity of videodiscs, Hollywood movies are now often available in videodisc format. Therefore, we decided to investigate the possibility of using Hollywood movies as video resources for multimedia ESL software. "Repurposing" a videodisc in this way is not without peril, as Schwier and Misanchuk warn us in their excellent text on producing interactive multimedia: "This [repurposing] is an imposing task, and the developer must be particularly sensitive to constructing interaction, remedial segments, and effective feedback into the CAI, because the video will likely not be constructed interactively. If this caution is ignored, you run the risk of developing segmented, linear video attached to a page-turning device" (Schwier and Misanchuk, 1993).

The Process

The remainder of this paper examines the phases of producing an interactive multimedia program using The Princess Bride™ videodisc.

Phase 1

The first step in the project development was to transcribe the script and to divide the movie into workable sections. Since The Princess Bride™ encompasses four sides of two CAV videodiscs each side conveniently became a chapter in the program. Each chapter was divided into the recommended three-to-four minute segments (Stanley and Griffin-Castro, 1992) called "episodes". Some episodes are as long as five minutes because they contain action scenes with little dialogue. Incidentally, it is important to note that the videodisc must be in the CAV (Constant Angular Velocity) format in order to use still-frame clips.

Since our potential customers, ESL instructors and students, have had little or no experience with, or interest in CAI, the initial programming was done without consultation with the end-users. I believed that it would be easier to get students and instructors involved in the project if we had something already prepared to show. Such production without consultation is possible in the Language Centre only because my background includes teaching and instructional design.

The first six episodes use one side of the videodisc. After programming these into various viewing, comprehension and grammatical exercises, I showed other Language Centre personnel, ESL instructors and ESL students the program and asked for their comments and suggestions on the work so far. At first they were impressed with the technology and the program, but soon they began pointing out the shortcomings. The program content was too complicated for Beginning and too simple for Intermediate ESL students. The students did not have enough control of the program. There was not enough use of the spoken language portions of the movie. I had not taken into consideration that most ESL students cannot type and they certainly are not good English spellers. By not programming for the two-button mouse, I had even ignored the possibility that one of them might be left-handed.

Once they understood that they would not have to become computer programmers, two ESL instructors agreed to help with the content and methodology components of the program, as time permitted. Language Centre staff vetted the program for bugs, inaccuracies and user-identified shortcomings. Another Language Centre software developer helped me with the content and structure and a programmer friend wrote some of the more difficult computer code.

Phase 2

The ESL instructors made many useful suggestions. For example, they suggested that I refer to the study guides of a local college (Camosun, 1988) to establish that the language and complexity of the movie was appropriate for upper Intermediate level students.

For the video presentation, we attempted to follow Tomalin’s “The three stages of a lesson using video” (Tomalin, 1986), in which each episode was studied in three sessions. First the student would view the episode straight through and do a comprehension exercise. Second, he or she would view the episode again with access to pause and replay options plus a copy of the episode script with “hot key” vocabulary words. The student clicks the 554
mouse on a word to see its definition and an example sentence. For Tomalin’s third stage, “extension and transfer” we used a series of exercises.

The content of these exercises depended on what happened in the movie and included listening comprehension, order of events, word order and vocabulary building. Grammar exercises concentrated on such topics as English idioms and expressions, phrasal verbs, relative clauses, positions of modifiers and verb tenses. Exercises were in the form of multiple choice, fill in the blank and manipulating objects. Keyboard entry was kept to a minimum.

Instead of navigating the program linearly with previous and next buttons, we used a main menu with a list of episodes that gave the users access to the episode menus. The user moved around in an episode from a pull-down menu in the menu bar. While free access to all parts of the program was not prohibited, it was not encouraged. We wanted the user to view a segment, perform a comprehension task, view the segment again then do the exercises. At the request of one ESL instructor, we built in the ability to keep track of the movements of the user, the time spent on any one portion of the program, and how many questions were attempted in each exercise. We thought that this would also show us how easy, difficult, or popular any one part of the program was.

After the incorporation of initial suggestions, we demonstrated the program, still covering only the first side of the videodisc, to two intermediate ESL classes. We put the program into our drop-in multimedia lab so students could use it when they wished. Initial interest was high but dropped off quickly. Most students watched the six episodes of the first side of the videodisc, picked around in the exercises a little, then watched the rest of the movie using a remote control. Obviously we had ignored the advice of Schwier and Misanchuk – we had developed a segmented, linear video attached to a slow page-turning device.

We are not disheartened by these results. Our own observations had shown that the program was difficult to navigate and depended too much on computer instruction in a language the user was trying to learn. It was boring, there was not enough feedback or interaction and worst of all, it was not an appropriate use of the resource – the movie. Since understanding a foreign language when it is spoken in normal conversation by native speakers is a goal of foreign language instruction (Terrell, 1993), the goal of the program should be listening comprehension and vocabulary building. It should give the student the opportunity to hear and learn English in context as spoken by natives.

We did realize that until an ESL instructor became a full collaborator in the program and was willing to make it a part of his or her curriculum, the pedagogical content of the program might not complement a particular course curriculum.

Phase 3

After further research into how to teach using video and how to use video in interactive multimedia, the third rewrite of the program is underway. We have resolved to identify and use non-verbal signals in the movie that will aid the student in understanding the language (Bini, 1993) and to make the program more interactive and to make the interaction emulate interpersonal communication (Schwier and Misanchuk, 1993). Since we have just purchased a top-of-the-line graphics package (once again letting the resources drive the instruction), we plan to use graphics and animation to replace much of the on-screen instructional text. We want to design a more user-friendly navigation system and create an iconography. Iconography in a computing context means the consistent use of icons to provide instant visual clues to what the program requires from the user, how the user navigates the program, what the purpose is of each screenful of information and what user interaction is available at that stage of the program.

Conclusion

The University of Victoria English Language Program teaches between 800 and 1000 students each year. A majority of those students are modern young people from highly technical cultures who are not only undaunted by the technology, but have come to expect it—a phenomenon that is present in a growing number of foreign language classes across North America. Movies are a part of that technical culture. They contain entertainment, instruction
and example, and are a comfortable subject for social conversation. As a resource for teaching English, movies provide examples of cultural and verbal exchanges that do not appear in classrooms. By incorporating movies into our instructional technology, we can present the user with a learning package that is familiar and comfortable. As a resource it is reusable, non-judgmental, infinitely patient, academically sound and entertaining.

References


