Several reasons delineating the need for workshops directly applicable to foreign language teaching are given. A fairly extensive description of workshop activities, the problems encountered, the results expected, and the actual results reported are also give.

KEYWORDS: Workshop, description, software evaluation, teacher training, BASIC, Super PILOT, educational strategies, instructional design, hands-on-experience.

Why conduct a computer-assisted instruction (CAI) strategy workshop? A number of practical reasons immediately come to mind. In the first place it is necessary to provide training mandated by school administrators. However, the outcomes expected by administrators can be more limited than necessary, merely enough acquaintance with microcomputers to gain a feeling of familiarity along with some practice in word-processing. In contrast, more true a few years ago, some administrators expected a two day workshop to produce a teacher programmer.

Secondly, strategy workshops are needed to ensure educational microcomputer applications pertaining to foreign languages. Thought needs to be given to goals for such instruction pertinent to that area. Since many early CAI lessons were in mathematics, initial language CAI lessons were essentially simple questions which could be answered by one word or a numerical answer such as in multiple choice. Obviously, there is a limit to the applicability of mathematics lessons to foreign language instruction. Flexible CAI exercises covering the complexities of foreign language acquisition are necessary.

Thirdly, strategy workshops are important, because it is becoming increasingly urgent to produce software which the foreign language profession desires. Instructors in foreign language are the experts in their field and should guide the directions CAI in second language acquisition takes. Everything should not be left to publishing firms which are by their nature interested in the most marketable products. Computer lessons involve method as well as content and the goals of the profession determine the methods used in presenting materials as well as content goals.

In the fourth place we need to counteract buzz words or fashionable lines fed to the public in the popular and microcomputer journal literature. These may reflect prejudices which are sometimes not well thought out and seldom reflect actual trials with real student users. Take as an example the early infatuation with games. It was proposed that all CAI language drills should be similar to penny-arcade games in order to hold the interest of the players. The idea faded away for a number of reasons, the most important being that only a small amount of language can be taught and
practiced in a game of that kind. Most student time and attention is taken up in the mechanics of the game. Secondly, many students are not interested in this type of competitive stimulus. Thirdly, even among those who enjoy the games, a diet composed solely of shoot-em-up games becomes boring.

Some of the fashionable pronouncements about CAI sound idealistic and are therefore very appealing. Workshops are important for a detailed look at statements such as Only use the computer for what it does best or what cannot be done by other methods. Dropping the word only leaves a reasonable proposition which allows useful drill and practice on the computer to be a worthwhile activity and yet calls for additional, more innovative use. After all, do we think it sensible to use the blackboard or pencil and paper only for what they do best or do we use them when we need them?

Strategy workshops help instructors keep an open mind to hardware and computer language capabilities and limitations. Some fashions in learning seem unduly negative. One writer advocates a particular microcomputer, the one which was most popular when the writer appeared on the scene. Another states that only one type of activity is worthwhile on the computer, one for which no software yet exists, for example, interactive, free conversation in a foreign language. Another, usually a computer science expert, favors the use of a very limited number of computer languages, all other languages not being elegant enough. However, as foreign language instructors, we find that our pedagogical problems are not those in computer science and the same solutions, including which programming language to use, will not suffice for language instruction. It has been stated that lessons without sound or without color are less valuable. These overstatements, meant perhaps to draw attention to problems as well as the potential of CAI, can only tend to turn the profession as a whole away from CAI, since such broad criticisms give a negative image.

We who work with CAI must ourselves guard against jumping on bandwagons, e.g., stating that everything must have a computer component, that only videodisc will do all we require, or that only videotape is economical. By attempting to lead the profession in a race for new equipment or applications, trying to be eternally in the forefront, we may be perceived as operating on a precipice where the group as a whole is not eager to join us. If we curb our enthusiasm slightly, shed more light on CAI and less heat or hype, we will more readily bring the foreign language profession with us into this new field.

In the fifth place, the workshops are needed to insure training opportunities for individual instructors who want to do their own thing. It has been stated frequently that teachers do not have the time to prepare CAI individually. It is true that teachers are overburdened with too many students and too many preparations to expect many to produce professional CAI. But, this again is an oversimplification. The best instructors are always using what little time they have to bring innovations to the classroom. Teachers want to get into the act. The CAI equivalent of the homemade game or spur-of-the-moment learning activity can be created and used successfully by a teacher-author with no thought of a finished, commercial product. Of course, fully professional material should be available and money is needed for filming, for programming, and for expert advice for these projects. But interested instructors want the training necessary to prepare or supervise the preparation by their students of short CAI segments which are tailored to the needs of a particular class. This is surely one way to capitalize on the training more and more of our students are obtaining in computer science courses, now frequently mandated.

Last of all, important to almost every instructor, is the need to develop criteria by which to judge commercial CAI. In a recent People Magazine article Roger Schank of Yale University reassured the public that they need not worry if their children do not seem to take to CAI readily or if their own efforts in that direction lead to frustration. He counseled waiting until the use of the computer becomes easy. Let the experts do it was part of the message. This may or may not be good advice for the general public but it does not apply to teachers, because they need to be the experts in their respective fields and that means teaching using the range of methods currently available, including CAI. Therefore ways must be found to assist teachers to make systematic critical evaluations of CAI software. Published critiques are starting to appear in the professional literature. These are necessary but not sufficient. They point out strengths and weaknesses in available software. However, they do not answer all the questions which arise relating to the unique situation of each teacher.

Workshop Description

The expectations of people involved in CAI workshops are broad. Among the schools which sent participants to our workshop, some administrators’ expectations were naive. As mentioned above, these expectations ranged from a little word-processing to the creation of a full-fledged computer programmer. Of the participants, some came with great apprehension, foreseeing incredible complexities involving intricate thought processes. In spite of this general fear, many had iron resolve. They wished to know all they could absorb about programming for education. The participants wanted to be informed about all eventualities and possible applications of CAI in schools and universities. Although we, the organizers of the workshop, anticipated the apprehension, we underestimated the extent. For some participants it was real culture shock, accompanied by fright and withdrawal. It was not just a new area but a new medium, even a new language. As a result, a few participants left abruptly in the first two days. On the other hand, we also underestimated
the extent of risk-taking by the majority of the participants. Both high school teachers and college instructors who survived the first few days plunged in with enthusiasm. They firmly ignored all preplanned programs (lesson and drill formats prepared in SuperPILOT and BASIC) which we offered in order to help them get into programming the easy way. They used the tools we gave them as they realized the need for them, each in his or her own uniquely personal way.

What then are the realities for a two-week workshop? Our participants absorbed enough computer technique in one computer language to complete at least a single (many-item) drill with graphics, sound and randomization. Many participants did much more than this minimum. In our workshop, educational strategies were discussed in the light of the new medium. Cognitive theory now deals with the aptitudes and preferences of the learner. Some students learn by listening and speaking, some by reading and writing, many by active hands-on involvement, most by some combinations. What can we do with CAI which will broaden the avenues to learning for the widest variety of students? Fundamental rules of instructional design were reviewed with this new tool in mind such as leading the student from the simple to the complex and from material already known to new material. The necessity for a clear path through CAI material, the integration of tutorials with interactive drill and simulation with student input were all areas of concern in the design of instruction. The art of effective presentation was demonstrated. Lessons should be easy to follow, well-illustrated, and simply and directly presented. The person-machine interface should be more than transparent, it should be helpful. Evaluation of the lessons and the results with the students was another necessary topic for discussion. Innovative areas were presented and discussed, such as videotape, videodisc and computers interfaced with videodisc.

Scheduling was tight in order to accomplish the various activities to accomplish the goals set for the workshop. After an overall view of the field the participants were given explanations sufficient to begin programming along with illustrations of more advanced programs. Here the clarity of the PILOT commands were helpful. We began character sets and graphics immediately since these are vital to the culture oriented lessons we favor and are easy to do in PILOT. Explanations were alternated with work sessions at the microcomputer. Outside lectures on special topics were given during the second week, but by popular demand in future workshops these lectures will be divided into theoretical and practical with the theoretical sessions placed during the first week. The lectures were:

1. "Instructional Design and Effective Presentations" by Esther Steinberg, the author of a recent reference book, Teaching Computers to Teach.
2. "Simulation and Graphics" by Stanley Smith whose work characterizes the state-of-the-art in teaching of Chemistry.
3. "Language Lesson Design" by Robert Hart, Assistant Director of the Language Learning Laboratory at the University of Illinois who teaches a course on this topic and has published commercial software.
5. "Humane Courseware" by Paul Tenczar, chief programming designer for PLATO and creator of EnBASIC. Work sessions continued to be interspersed with lectures and discussions throughout the workshop.

Both outside lecturers and the organizers of the workshop brought up theoretical questions of approach, style, method, aims and evaluation in various contexts during the workshop. We finished with a general discussion and a demonstration of the work produced at the workshop. Constant monitoring was imperative during the workshop particularly during the first week. We used student monitors, carefully chosen, since not all programming geniuses can explain what they do. Tutoring took a great deal of time the first week. Much individual counseling and reassurance were needed. The form of our evaluations of the participants' work consisted of asking questions which allowed them to evaluate their own work. This proved satisfactory for adults who know what they want to accomplish and have a developed style of teaching.

Workshop Results

As we evaluated the workshop, our strongest impression gained from watching the participants work and hearing their comments as they made progress was that these instructors' ideas frequently could not be fitted into prepackaged programs. They were not satisfied with the ideas of others and with good reason. Each had goals which differed from others even in teaching similar material. Each had unique contributions to make, both in the substance of the material which they developed and in the method. They were able to draw some ideals from us, from the experts we introduced them to, and from each other to produce valuable pieces of software they could proudly call their own. The following are a set of examples from the work of the workshop participants: a verb paradigm for small children where the user works with very large letters; a glossary page which allows a variety of ancillary material to be optionally available to the student; a concentration game which can be set up either in English or in a mixture of character sets; a verb conjugation page on which the amount of work the student has to do is governed by success in predicting the verb forms; a pronunciation lesson, done in BASIC, in which the student can pick pronunciation clusters from a numbered chart in order to create with ease a complex pronunciation map of an extended utterance.

Conclusions

In summary no one commercial program could accomplish what these instructors arranged for themselves. Both
school teachers and university instructors showed ingenuity, determination and the capability of writing good CAI. The participants not only had the opportunity to view samples of a variety of commercial CAI, but they also left the workshop with a well-thought out list of criteria for judging CAI along with some ideas for the future use of this new teaching tool. Indeed, some voiced the opinion that merely developing a list of criteria for judging commercial products without the workshop programming experience would have been far less valuable. The personal hands-on involvement in program development was therefore proven beneficial even to those who said that they might never vigorously pursue writing CAI themselves. In our opinion workshops of this nature are both timely and worthwhile for foreign language instructors entering an age of new technology which has vast potential for education.

Authors' Addresses

Constance Curtin
University High School
University of Illinois
1212 W. Springfield
Urbana, Illinois 61801

Stanley Shinall
French Department
University of Illinois
2090 Foreign Languages Bldg.
707 S. Mathews
Urbana, Illinois 61801