Due to a rapidly increasing demand for bibliographic instruction, Southwestern College in San Ysidro, California, devised an interactive English-Spanish multimedia library skills program using Macintosh and Kodak PhotoCD technologies. First, a PhotoCD containing 100 photos of library services was produced. Then, an interactive Macintosh program using Macromedia's Director software was developed. The "attract mode" entices passersby with a 360-degree view of the library's interior. The next screen offers eight choices: Restrooms; Help; San Ysidro (college center); Interactive Campus Map; Floor Plan; Index of Topics; 360-degree view; and Non-print Materials. Following screens provide up to four layers of information. Users can access information from photographic, graphic, or textual starting points. For Beta testing, paper response surveys were used and screen output was videotaped by connecting a VHS recorder to the Macintosh each morning and recording 8 hours of use. The videotapes illustrate how students are using the program and where they become hung up or abandon the program. As technology improves, bilingual sound and Quick Time movie or video disc inserts may be added. This project was funded with a $10,000 Fund for Instructional Improvement grant from the California Community Colleges Chancellor's Office. The paper includes copies of Southwestern College Library Orientation computer screens. (KP)
Macintosh and Photo-CD Technologies Provide Orientations to Southwestern College Library

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W. J. Alexander

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."
Southwestern College (SWC) with an enrollment of nearly 16,000 students is located farther west and farther south than any other college in the United States. A SWC Education Center in San Ysidro is less than a mile from Tijuana, Mexico. The main campus is seven miles north in Chula Vista, halfway between downtown San Diego and the Mexican border. It is understandable, then, that Spanish and English are the major languages on our campus.

Many of the students who begin a program of studies with us are unfamiliar with both the library and the principles of library research. This inexperience and lack of research skills presents a serious impediment to success both here and in the future. To correct this deficiency, we work to acquaint our patrons with the basic essentials of library research in one-hour bibliographic instruction classes, arranged by individual instructors and offered during class time. The demand for this type of library orientation has been increasing by over 25% each year for the past six years with 254 in 1992-1993. In addition to this, a one-unit class is offered in the honing of library skills. Librarians will also instruct students in one-to-one encounters, when possible. Still, these efforts do not reach all of the students who need help.

While these are certainly positive and worthwhile programs, they are not a perfect solution to this serious problem. Those students who cannot attend, for whatever reason, that particular class session remain ignorant of these essential academic research skills. Also, because of space limitations within the library building, it is impractical to guide the students through the actual library collections. Thus, while they may gain some familiarity with the basic theory of library research, they remain unfamiliar with the physical arrangement of the library itself. Lastly, the necessity of presenting a large amount of information within the constraints of a one-hour session precludes the possibility of spending much time with individual students. In particular, this negatively affects those students whose native language is not English, and who may consequently have difficulty assimilating the principles presented in such an accelerated, compressed program.

Because of these conditions we decided that an interactive multi-media library skills program freely accessible to students during regular library hours would help to solve some of our orientation problems. A program based on Kodak’s new PhotoCDs would provide the photographic images necessary for a visual physical awareness of the various areas and collections in the library.

Southwestern College, 900 Otay Lakes Road, Chula Vista, California 91910 U.S.A.
A Fund for Instructional Improvement grant of $10,000 was sought from the California Community Colleges Chancellor's Office. Our proposal to use new technology to answer basic library questions so that our limited staff could use their expertise to provide personal attention to the students' more complex needs met with state approval. Our deadline is now June 30, 1994 to finish the project.

First, we produced a PhotoCD containing 100 photos of library services which is used to supplement our classroom orientations much like a tray of electronic slides which can be accessed in a random manner. Then, using the digital images provided by the classroom PhotoCD, we developed an interactive Macintosh program using Macromedia's Director software. Our standalone "kiosk" is a 16 megabyte Macintosh VX with an 80 megabyte hard drive displaying both 8 and 16 bit images.

When the Macintosh is turned on every morning, the attract mode of the orientation program begins. The first screen simulates looking through a light airplane's front window as a 360° view of the library's interior scrolls by. (The Southwestern College Library has three light airplanes hanging from its ceiling.) If no one uses the program for several minutes, the program automatically reverts to this attract mode, hoping to entice any passersby. Every few seconds the language on the plane's instrument panel alternates between Spanish and English text saying, "Why fly around in circles looking for what you need? Click the mouse button to start the Southwestern College Library Orientation." If clicked during the Spanish attract mode, a Spanish welcome screen greets the user with three choices: look at the credits, change to English or start the orientation in Spanish. Similar rules apply if you click during the English attract mode.

The next screen that appears in the language of choice is the main menu screen of the program. Its design utilizes an enlarged college logo and allows the user eight choices and a change language button. The choices are: Restrooms (one of our most asked about topics); Help; San Ysidro (a college center); Interactive Campus Map; Floor Plan; Index of Topics; 360° View; and Non-print Materials.

Starting with this screen, if one points at a button or selected object, brief descriptions or directions are given on the current screen. In this case a vertical text box in the middle of the buttons tells the user what the button topic means and what will happen when one clicks on that button. Moving the mouse pointer off a button will remove that vertical text box.

Clicking on the buttons takes the user to new screens. For example, clicking on the Restroom button would take the user to a floor plan showing how to quickly find this service. Clicking on the Interactive Campus Map button presents an interactive map full of "hot" buildings and buttons which when pointed at give more information on this area on the current screen or when clicked on go to a screen dedicated to the clicked button's subject. And, clicking on the Non-Print Materials button presents
a floor plan and subject buttons explaining how to use materials located in
the Learning Resource Center.

If the user is uncertain about where to start, the program directs
him or her to point at the 360° View button, to read the vertical text box
and finally to click on that button taking the user to the 360° View screen.
This screen again utilizes the 5 wide-angle PhotoCD images that were fit
together to form a continuously moving strip in the attract mode and here
provide two nearly 150° views, looking forward and above the Macintosh
and looking backward away from the Mac. All of these panoramic pho-
tographs were taken from the same position which is also the location of
the Macintosh used for this interactive orientation. This screen allows you
to point at or click eleven new buttons which when pointed at will show
you where on the panoramas each service is located. And, when clicked
on will take the user to new screens for more in-depth information. The
eleven new buttons are: Classroom; Restrooms; Periodicals; Circulation;
Copies; Stacks; Atlas; Reference; Periodical Indexes; Information; and
Online Catalog. Buttons to return you to the Menu or the Floor Plan or the
Index of Topics are also available.

By selecting these buttons the user can get more information that
extends two to four layers (screens) deep. This in-depth information can
also be reached from other jumping-off points, such as the Floor Plan or
the Index of Topics or the Help sections. Users, thus, are able to get the
information they need regardless of whether their learning styles choose
photographic or graphic or textual jumping-off points. In fact, within the
Help section even more guidance is given to users who are directed to
appropriate sections that answer their basic questions, such as “Where
can I find this article” or “I need to write a paper. Where do I start?”
These help items are duplicated on paper handouts that students may
take with them.

For Beta testing we are using paper response surveys and we have
been videotaping the screen output by connecting a VHS recorder to the
Macintosh each morning and recording 8 hours of use. This allows us,
without violating user privacy, to fast forward through the tape and see
how each person uses the program, including where they get hung up or
actually abandon the program without getting the needed information.

Although the state will close their books on the project this June,
we won’t ever consider the project finished. As our library changes, so
must the orientation. As our technology improves, we may add bilingual
sound and Quick Time movie or videodisc inserts of how it would look
from the user’s point-of-view to walk from the Macintosh to the selected
area.

In addition to providing a useful orientation to our library, we want
this project to serve as an example that interactive instructional media is
effective, fun and now possible at Southwestern College. Indeed, we look
forward to welcoming more faculty and students to the development pro-
cess for future versions.
Southwestern College, like many of its sister institutions throughout California, has experienced a shortfall of available funds for instructional innovation as well as an increase of students who have not been properly prepared for the rigors of college level academics. We currently have an enrollment over 15,000. Many of these students begin a program of study unfamiliar with doing research, or even negotiating the college library. The attrition rate of such students is extremely high. To attempt to retain more of our traditionally under-represented students, something had to be done. It was determined by librarians and faculty alike that a thorough working knowledge of the college library is a positive aid to student retention. To help in the familiarization of the library to students who are not well versed, Bill Alexander, Associate Dean of Instructional Resources, Tim Alexander, now a graduate student in Library Science at the University of Missouri, and Ron Vess, Bibliographic Librarian, are developing two projects: one a classroom enhancement and the other an interactive Macintosh program meant to be very user friendly. We hope to catch at-risk students, even those who may not know they are in need.

The Southwestern College Library maintains an aggressive Bibliographic Instruction program which serves the instructional divisions well. We are currently preparing and delivering in excess of 300 one-hour group orientation sessions per year. Even with this success we are not catching all those who are in need of instruction. Large numbers of students for whatever reason cannot, or do not, attend these sessions. In addition to the one-hour presentations, a one unit 9-week course is offered, but still all those in need are not addressed. It was decided to develop a library orientation module for a standalone “kiosk.” Our interactive system will be available whenever the library is open and is designed to give elemental information on most aspects of the library’s operation. We found several models currently in use at other colleges. But, they proved to be either too elementary or they are rigid in their presentation not allowing exploration or quick module change.

The project began by photographing over a hundred areas of the library. One hundred photographs were then digitally encoded by Kodak onto a PhotoCD. A PhotoCD player and a television now operate as an “electronic slide projector” to enhance orientations given in the library classroom. The images were then imported to the Macintosh so that an application, MacroMedia Director, could be used to add text and animations and create an interactive program. The project has been in development for over 16 months, has grown to 16 megabytes in size, and will be installed for student use by July 1, 1994. A Fund for Instructional Improvement grant from the California Community College Chancellor's Office supports our project.
Technical Information:

Production/Presentation Equipment: Macintosh IIX, 80 MB HD, 20 MB RAM - Kodak PhotoCD 870 Player
Software: Macromedia Director 3.1 and Adobe Photoshop 2.5
PhotoCDs: Cost for 100 image disc= $135.00 ($1.35 per image).

Disseminations:

Association for the Advancement of Computing in Education (AACE), San Diego March 20, 1993
San Diego & Imperial Counties Community Colleges Assoc. Multimedia Expo, El Cajon August 17, 1993
Rancho Santiago College Flex Day Presentation, Santa Ana August 18, 1993
The Association for California College Tutorial and Learning Assistance, Sacramento November 19, 1993
11th International Conference on Technology and Education, University of London March 29, 1994
Chancellor's Office Third Annual Collaborative Conference, San Jose April 13, 1994
San Diego Computer Faire, San Diego (September 23, 1994)
League for Innovation in the Community Colleges Conference, Houston, Texas (November 15, 1994)
Recently applied to Association for Educational Communications & Technology Conference (Los Angeles, 1995)

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Click the Mouse Button to Start
The Southwestern College Library Orientation.

Bienvenidos

Para empezar la orientación bibliotecaria, mueva el control para escoger el idioma y luego oprima el botón. El pasar por los créditos del video, aunque veloz, se tomará entre 1 y 2 minutos antes de que pueda empezar el programa de nuevo.

Credits

This program came from the ideas of Tim Alexander, Ron Vess and Bill Alexander. Click the mouse button to go back to the Welcome screen.

David Heres, California Community Colleges Chancellor
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Carolyn Hemes, State Library & Learning Resources Coordinator
Joseph M. Coate, Superintendent/President Southwestern College

Southwestern College, CA Comm. Colleges 1995