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When the computer age began, the myriads of possibilities for the computer's use in business, government and education were still unfathomable. Expressions such as "computer assisted instruction" and "hypermedia" were used only by scientists and programmers. Nevertheless, in a few short years the numerous capabilities of the computer were manifest. Today, "software," "floppy disk," and "P. C." are a part of the average person's vocabulary. Every day children "boot up" to learn such fundamentals as reading, writing, and arithmetic. Of late, programs teaching foreign language have been added to these instructional materials. This paper will discuss one such foreign language program developed to supplement a beginning Spanish course. CASA, an acronym for Computer Assisted Spanish Applications, was developed at Brigham Young University by Earlene Sudweeks and Barbara Gordon, two undergraduate students in the Spanish program.

The CASA program is developed using HyperCard on the Macintosh computer. HyperCard creates software that teaches, tutors and instructs. It is relatively simple to master the HyperCard language and to use this language to develop professional-looking software. "Stacks" and "cards" form the basis for HyperCard programming. Each screen displayed on the computer terminal represents a "card". These cards are grouped together to form stacks, and one stack or a combination of several stacks constitute a program. The applications in HyperCard use such supporting structures as tools, graphics, and sound.

The tools of Hypercard include such options as "buttons" and "fields." Buttons are used to execute the algorithm of the program. They allow various texts to appear and disappear at will, they "turn the pages" of the HyperCard cards. These features increase the interest of the student as they allow him or her to interact with the program. Fields also play a very important role as a HyperCard application. They function mainly to present text, however, their use is versatile.

HyperCard also contains tools and capabilities to make use of or create various types of graphics. Graphics created with paint tools or scanned images allow the programmer to visually stimulate the user.

Digitized sound is another characteristic of HyperCard. Sound is stored as a resource in a given stack and is activated by using a "play" statement in the script. Sound can be incorporated into the program by a MacRecorder which accepts both prerecorded and directly recorded sounds. Direct recordings are those sounds spoken directly into the MacRecorder where editing can take place immediately. HyperCard has a complete programming language called HyperTalk. The scripts

within the stack, written in HyperTalk, are what give all buttons and fields and other such HyperCard applications their maneuvering capabilities.

The following will more fully explain the characteristics of the aforementioned HyperCard properties as used in the CASA program.

The first stack encountered in CASA is an introduction to the program itself. Automatically, music is played while an invisible paint brush tool paints an illustration of a house (*casa* in Spanish) and places "Computer Assisted Spanish Applications", along with the acronym CASA, inside the drawing. This opening card, with the drawing and sound, serves to capture the attention of the user as he immediately realizes that this will not be a monotonous tour through endless cards of explanations and detailed descriptions.

Following this brief introduction the user is given an overview of the Spanish alphabet and of the basic pronunciation rules, all of which include sound resources to provide the user with the correct pronunciation of each. A short quiz follows to test the student's comprehension level.

Once the user has mastered the alphabet and pronunciation, he is encouraged to continue on to the grammar portion of the stack. Keeping in mind that this program is geared toward the beginning-Spanish student, the grammar is presented in a simplistic and understandable manner. First, the pronouns with the English and Spanish equivalents are taught. Then a few regular verbs are presented in full conjugation in the three most common tenses: present, past, and future. Through a series of well-constructed cards, the user has the option of reviewing as often as necessary the presented material both in Spanish and in English before continuing with the program.

The program then continues with a presentation of common dialogues. The objective of this section is to enhance the listening-comprehension skills of the student by presenting three typical conversations that would commonly occur in a park. Both the written and audio dialogues are given.

Once again the format changes and the student is given an opportunity to test his reading skills and to learn additional vocabulary. A short children's story, Hansel and Gretel, is displayed in book-like form complete with open pages and illustrations. Each page contains text which has hidden buttons that allow the user to "click on" unfamiliar words to see their English equivalent. Sentence by sentence, the reader is given the opportunity to not only read the text but to hear it spoken. By this he can add to his understanding of spoken Spanish as well as written Spanish. Following this portion, the user is once again presented with questions to test his level of comprehension.

Another feature was added to CASA that promotes its usefulness. Realizing that many of the beginning-Spanish students will one day face foreign airports, non-English speaking taxi drivers and hotel receptionists, CASA takes the student on a trip to a spanish-speaking country. Simulations and dialogues allow the user to master the vocabulary necessary for travel. Sound is included to assist in this

process. From take-off on *Hispanoamérica* Airlines until dinner is served and paid for in *Restaurante La Torre*, the user learns much useful vocabulary that he would most likely encounter while traveling. The dialogues and vocabulary words were recorded by natives of Spanish-speaking countries.

In a part of this travel segment, the traveler steps off the airplane and encounters with the dilemma of hailing a taxi to his hotel. A short spoken dialogue is presented depicting a common conversation between a tourist and a taxi driver. Written scripts, both in English and Spanish, appear on the screen at the student's request. The tourist then arrives at the hotel *La Madrileña* inquiring after a room for the period of one week. Scanned graphics are used to depict a hotel lobby on the screen. Vocabulary words referent to a hotel lobby are presented as buttons over such items as suitcases, keys and packages. When pressed, these buttons permit the user to both see and hear the Spanish equivalent of these articles.

Another segment of this program takes place inside of a Spanish restaurant. Buttons are strategically located over various articles in the scene. When depressed they give a close-up view of a table setting and menu. Using programing techniques previously described, both vocabulary and a restaurant dialogue are given to increase the student's vocabulary bank.

Tests and quizzes which follow each section of newly presented material challenge the student's comprehension of the dialogues and vocabulary words. These allow the user to identify which areas of study ought to be focused upon more intensely.

The CASA program is still in its developmental stages, but the feedback as to its effectiveness is encouraging. With additional segments, CASA could become a comprehensive introduction to Spanish. Supplementary lessons will teach information such as additional verb tenses and conjugation in both regular and irregular verbs. The HyperCard software, with virtually unlimited options, has the capability of supporting these additions to Computer Assisted Spanish Applications. As this and other language instruction programs continue to increase in both popularity and availability, it is our hope that CASA and like software will be used more extensively in foreign language educational curricula.