ERIC LIPPKE

CREATIVE, INTERACTIVE TEACHING WITH LESSONMAKER

LessonMaker is a tool for creating interactive lessons for the challenged student. It was developed to help augment communication and is easily modifiable to meet a student's changing needs. The software was designed to make it easy for a teacher to set up customized graphical talking templates. The SkillBuilders series is a collection of premade talking lessons created using LessonMaker. Teachers can use the SkillBuilders as they are, edit and expand them, or fashion their own lessons.

LESSON DEVELOPMENT

The Edmark LessonMaker is a tool that allows teachers to create talking software to augment the communications skills and cognitive development of students with learning, mental, physical, and communication disabilities. The interactive lessons developed use a multimedia approach, combining graphics, text, speech, and the added dimension of branching from screen to screen. The program is designed to allow instructors with even minimum computer experience to produce and revise their own lessons. Lessons can be designed to react differently to varying student responses and incorporate verbal cues and spoken reinforcement. Once a lesson is created, it can be stored on its own disk with LessonStarter, where it will run independently of the program's master disk. Record keeping and setup options are also accessible while the lesson is being run.

This multisensory teaching tool presents the teacher with a grid of squares to be filled with graphics. The grid size is user controllable: options range from 1×2 to 6×6. Graphic library disks containing pictures are available, as is a utility to capture or create graphics. Any graphic, when activated, can speak as well as branch to any other screen (Fig. 1). Phrases can be entered as straight text, phonetic, or digitized speech. More than 900 digitized words are included. The vocabulary was carefully selected by speech therapists and educators.

A screen in LessonMaker can also present a question to the student, for example (Fig. 2), "What goes with zoo?" It can then speak, branch, or display the correct answer in response to the student's choice. An alternative phrase or branch is presented when the student answers a question incorrectly. (The number of incorrect responses allowed by the student is preselected by the teacher.) LessonMaker also comes with a simplified scorekeeping system that tracks the number of correct and incorrect student responses.

PERIPHERALS

LessonMaker runs on any Apple II computer with a minimum memory of 128K. It requires an Echo II Speech Processor (developed by Street Electronics, Inc.), which gives the computer the ability to generate speech. The high-quality digitized voice presents information, asks questions, gives directions, and offers students immediate feedback, thus allowing them to work more independently.

LessonMaker was designed to be used with the Edmark TouchWindow, a touch screen that lets the student interact directly with the software program.

LessonMaker can also be used with a keyboard or with single-switch scanning. The scanning option allows students with physical handicaps to interact with the computer using a variety of input devices.

SKILLBUILDERS SERIES

As an adjunct to LessonMaker, teachers can also select from the SkillBuilders series, a collection of premade talking lessons available in four categories: Communication, Early Concepts, Vocabulary, and Activity. The series was developed by Barbara Lippke and was tested through a partnership plan with the Seattle, Washington, school district. SkillBuilders is easily edited, extended, and modified. It was created using LessonMaker, so that instruction can be customized to fit the student's needs.

The Communication series introduces students to the use and function of communication boards. It serves as a template for developing custom-computerized student communication boards as well. A student selects a picture, symbol, or word, and the computer does the talking. Pictures can be sequenced to build sentences, and any picture can branch to a new graphics screen.

The Early Concepts series extends the child's first picture vocabulary and helps teach functional relationships such as cause and effect and logic of elimination. Finding, matching, listening, and visual discrimination are some of the activities presented with Early Concepts SkillBuilders.

New vocabulary and language concepts are taught through the Vocabulary series. These lessons allow students to browse freely through a variety of vocabulary pictures. When the student selects a picture, the computer responds by saying the name of the picture. These lessons are effective in group settings and for individual use.

The Activity series has two components: the School and Community SkillBuilders. Both extend vocabulary while teaching functional interaction in school and
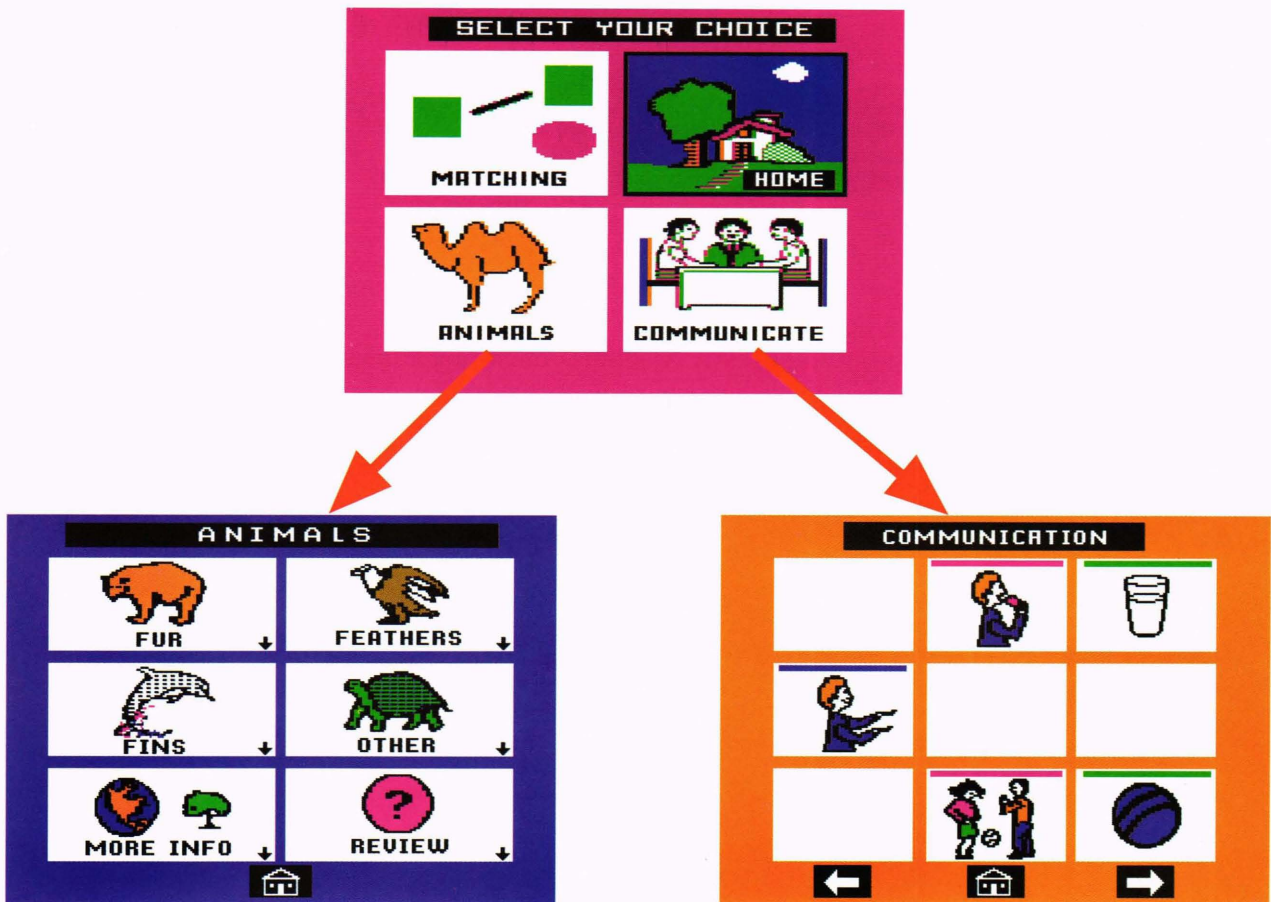
Figure 1. The branching feature allows the user to move to various screens.

**Figure 2.** This LessonMaker screen asks the student a question.

community environments. The former was designed to help students learn to complete school activities independently. Steps, procedures, and vocabulary needed to perform such school-based activities as visiting the office are reviewed. The latter helps students learn vocabulary and procedures before going on field trips.

SUMMARY

The flexibility of LessonMaker allows instructors to provide many creative approaches to language and cog-nitive development for the student with special needs. Many lessons have already been designed to reinforce early language and prereading skills through the Skill-Builders series. The lessons carefully sequence the teaching of a skill or vocabulary, reinforce skills, and build new skills based on those already learned.

THE AUTHOR
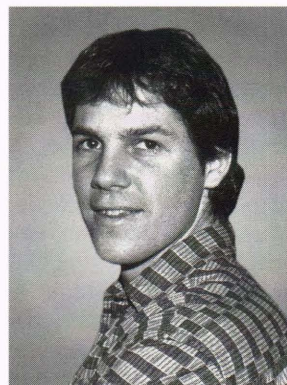
ERIC LIPPKE has been involved in the creation of educational software for over ten years. Starting as a computer consultant in special education for the Seattle, Washington, school district, he had the opportunity to work with students with many different needs. Mr. Lippke designs and creates educational software for Edmark Corporation in Redmond, Washington.