From Opaque Projector to Camcorder

by Augie E. Beasley

Media specialists are encouraged to establish production facilities in their school library media centers, but realistic guidelines and recommendations are not easily obtained. At the same time, the production skills taught to media specialists and teachers in workshops or classes are often almost impossible to implement because of the time needed to master the techniques or because of the excessive costs of equipment and materials.

Starting a production component of the school library media center is comparable to building the collection. Each media center reflects the curriculum and needs of the individual school, and so does each production facility.

The production facility at East Mecklenburg High School is not state-of-the art, but it can meet most teachers' and students' production requests. Since the media staff does not have the time to create the final product for teachers, the audiovisual area is designed around production tools which require a minimum of instruction. If more in-depth skills are needed, after-school instruction is scheduled so there will be fewer interruptions for both the media specialist and the teacher.

Remember, the following recommendations are guidelines, not rules. Starting a production component of the school library media center is comparable to building the collection. Each media center reflects the curriculum and needs of the individual school, and so does each production facility.

Most in-house production can be divided into five areas: (1) computer literacy; (2) transparency design; (3) video production; (4) slide production and (5) lettering for posters and bulletin boards.

A computer and a printer should be available in the production area. Helping teachers and students become computer literate should be a priority. The circulation policy should permit teachers to check out computers overnight or for the weekend if the school's policy on overnight circulation of equipment allows.

Using various word processing programs, utility programs, and graphic programs, teachers can design and produce handouts, tests, banners, posters, and transparency masters. When most teachers and media specialists speak of in-house production, they are referring to transparency design. **BeagleWrite**, an excellent program for creating transparencies, is a word processing program designed for the Apple 2e or Apple 2GS in which sizes and styles of lettering can be varied throughout the document. It also has math symbols, foreign language alphabets, and a font called Michelangelo that has pictures and symbols. These fonts can be incorporated into the text or used alone. With this program, transparency masters can be created quickly and easily. Gone are the days of mechanical lettering, hand lettering, and paste-ups!

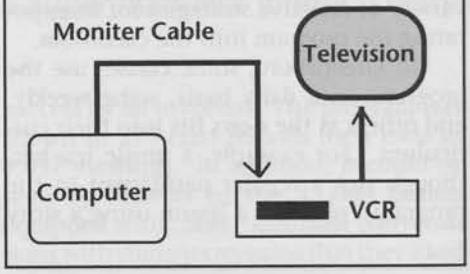
For **BeagleWrite**, or any other computer program to be used for producing thermal transparency masters, it is necessary to make an electrostatic copy (unless you have a laser printer), since a carbon-based master is needed to produce the transparency. If at all possible, the copier should be kept near the production area. To make transparencies, a thermal copier is necessary. It can also be used to make thermal spirit masters for use on the spirit duplicator.

All components of the production facility are interrelated. As teachers and students become comfortable using the computer, they can move on to desktop video. At its simplest, this is the integration of computer graphics into video productions.

A camcorder, compatible in format to the school's VCR, is needed for video production. The list of things that can be done using video and a little imagination is endless. Can you imagine The Missouri Compromise of 1820 - 21 being told visually? This was done by a group of students in an American history class.

Add more "pizzaz" (titles and special effects) to the in-house production of videotapes with **VCR Companion** or **Slide Shop**. Using a computer, a video cassette recorder and two cables, it is possible to edit these programs onto videotape. (See figure 1.) Do not attempt to add graphics from MS-DOS computers to videotapes unless you have an expensive encoder. Some computers whose signal can be videotaped without an encoder are Apple, Commodore, and Amiga.

Figure 1
Computer Graphics



Expanding the use of graphic programs in video production is easy with an Apple II Video Overlay Card, which costs about $500. This card is designed for use with Apple IIe (with 128K) and Apple II GS computers. With this computer card, graphics can be superimposed onto existing video.

Using a Video Overlay Card, an Apple computer, **VCR Companion** or **Slide Shop**, effects such as fades, dissolves, wipes, animation, and credits can be incorporated into the video program. (See figure 2.) At this level of video production, simple assemble edits can be accomplished using two video cassette recorders connected by audio and video cables. When connecting the cables, be sure to place the recording VCR in the "aux" or "line in" mode. Connect a television set to the recording VCR by an RF cable. This will allow the tape to be viewed as you are editing. (See figure 3.)

Figure 2
Video Overlay Card

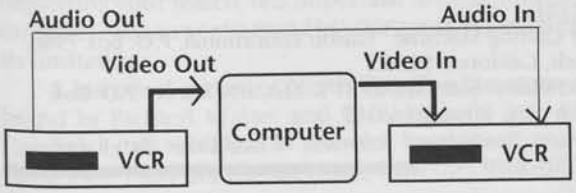
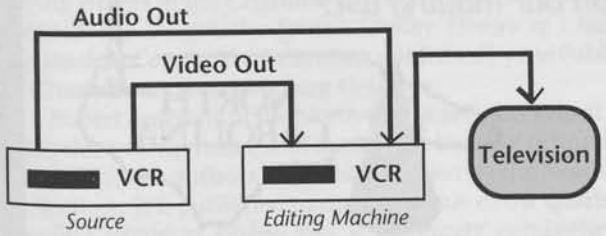


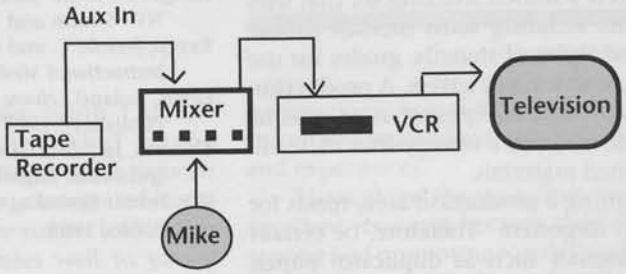
Figure 3
Simple Editing



To edit from one video cassette recorder to another, back up the source machine five to ten seconds before the taping is to begin. Then press pause. On the editing machine, locate the point where the tape is to start. Then press record and pause simultaneously. Both VCRs are now in the pause mode. Release the pause button on the source machine first, and then press the record button on the editing machine. At the end of the recording sequence, press pause on the editing machine. Then repeat the process. "String" the video clips together in this manner until the tape is finished. **When using this method, insert editing cannot be done.**

To increase the benefit of using video in the classroom, learn how to do simple audio dubs. This is the addition of narration, music or sound effects to the finished tape. Using a simple audio-mixer, which is available at Radio Shack for $75, an inexpensive microphone, and a monaural tape recorder, this can be done easily. (See figure 4)

Figure 4
Audio Dubbing



Do not try to use record players with inexpensive audio mixers, since the audio signal from the record player is too weak to be recorded. It is best to use pre-recorded audio tapes or to record the music onto audio tapes before attempting the audio dubs. **When using a VCR with an audio dub feature, note that the original audio will be erased as you add your narration.**

Many of the newer VCRs do not have an audio dub feature; however, it is still possible to add narration to the edited tape. From the source machine, run a cable from the video output into the video input on another VCR, which is called the editor. Run a cable from the audio output on the source machine to the audio input on the mixer; then run a cable from the audio output of the mixer to the editing VCR.

Narration, music, sound effects, and selected parts of the original audio can be added as you monitor the videotape by using the mixer. An advantage of using this method is that the original audio is not destroyed. When doing audio dubs, use the headphone jack on the mixer to monitor the audio. (See figure 5)

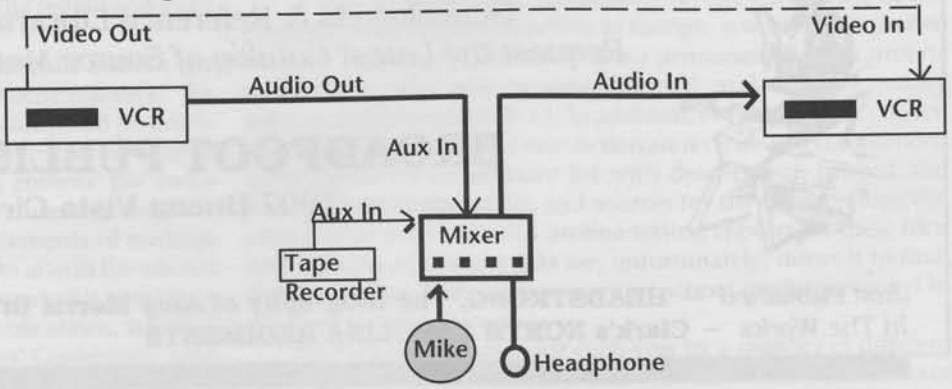
With the popularity of camcorders in schools, few teachers and students make sound slide presentations because of the time and expense involved; however, slides are sometimes preferable to videotape because of their ability to show greater detail. Also, with slides the pace of the lesson is easier to control. Biology teachers prefer slides for close-up photography, and art teachers like slides because they reproduce the art work better than videotape does.

In the photographic component of the production facility, purchase the best camera your budget will allow and a 50mm lens, which is called a normal camera lens. If close-up photography is planned, buy a copystand and a macro lens or a set of close-up rings. Be sure the rings are the correct size to screw onto the normal camera lens.

With the use of **VCR Companion**, **Slide Shop**, or one of the other graphic programs on the market, slides can be photographed directly from the computer's color monitor. Using this method, teachers or students can produce graphic slides for use in slide presentations without taking the time involved in making paste-ups to be photographed. Slides made in this manner will not be as "crisp" as the ones taken using a copystand, but the time saved may outweigh this shortcoming. With **Slide Shop**, you can print graphics you have designed. These can then be added to posters and bulletin boards or used as transparency masters.

In this age of technology, the production area's greatest use will come from teachers and students designing posters

Figure 5
Audio Dubbing



and bulletin boards because they are easy, inexpensive, and quick.

For creating letters for visual displays, the most cost effective tool we have is the Ellison Letter Cutting Machine. This machine uses a simple press and dies to cut perfect letters for bulletin boards or posters. This time-saving machine is easy to operate and can produce letters from construction paper, poster board, or felt.

To provide the best service for designing visual displays, other lettering tools should also be considered. One tool is an Alphaline Lettering Set, which is a stencil lettering set that uses different colored tapes. Other lettering tools include rubber stamp letters, various sizes and styles of stencils, guides for use with pencils and felt markers, and tracing letters. A production facility should also include such basic equipment as an opaque projector for enlarging illustrations, and a twenty-four inch roll laminator for protecting finished materials.

In the excitement of designing a production area, funds for consumable supplies are often forgotten. Therefore, be certain that adequate supplies of materials such as duplicator paper, construction paper, poster board, and magic markers are available for teacher and student use. To the list of consumable supplies, cardboard stencils and tracing letters should be added because these materials need to be replaced often.

Another item which is often overlooked is a supply of videotapes for production projects; however, both students and teachers should be aware of and respect U. S. copyright laws if they videotape programs off the air for future use.

Many school media people will believe the production facility described in this article is too basic; others will think it is too advanced. But these recommendations are realistic and attainable for most schools. To ensure the success of your production component, be available; be helpful; and, as a friend of mine used to say, "Be courteous, be enthusiastic, and always offer service with a smile!"

RELATED READINGS

Bullough, Robert V. *Creating Instructional Materials*. Columbus, OH: Merrill Publishing Company, 1988.

Close, E. Burt. *How to Create Super Slide Shows*. Cincinnati, OH: Writer's Digest Books, 1985.

Hedgecoe, John. *John Hedgecoe's Complete Video Course*. New York, NY: Simon and Schuster, 1989.

Kemp, Jerrold E. and Don C. Smellie. *Planning, Producing, and Using Instructional Media*. New York, NY: Harper and Row, 1989.

Lewis, Roland. *Home Video Maker's Handbook*. New York, NY: Crown Publishers, 1987.

Thomas, James L. *Nonprint Production for Students, Teachers, and Media Specialists*. Englewood, CO: Libraries Unlimited, 1988.

Utz, Peter. *Recording Great Audio*. Mendocino, California: Quantum Books, 1989.

PRODUCTS

Alphaline Lettering. The Highsmith Company, W5527 Highway 106, P.O. 800, Fort Atkinson, Wisconsin 53538-0800.

Apple II Video Overlay Card. Apple Computer, Inc. P.O. Box 4046, Cupertino, Calfornia 95215-4046.

BeagleWrite. Beagle Bros, Inc. 6215 Ferris Square, Suite 100, San Diego, California 92121.

Ellison Letter Cutting Machine. Ellison Educational, P.O. Box 7986, Newport Beach, California 92660.

Slide Shop. Scholastic Software. 2931 E. McCarty Street, P.O. Box 7502, Jefferson City, Missouri 65102.

VCR Companion. Broderbund Software. 17 Paul Drive, San Rafael, California 94903-2101.