

From The Classroom

A Low-Tech Tool for the Music Classroom

By Joel Phillips

In this expanding world of “high” technology let us not forget there are many fine applications of “low” technology in the music classroom. The humble overhead projector is but one example of an immensely useful low technology that many of us have overlooked since the advent of computer technology. Permit me to share a few ideas of how indispensable I find this low-tech tool in my classroom.

Consider using the overhead projector instead of a chalkboard. Doing so has several distinct advantages. First, using the overhead allows you to talk to your students instead of to the board and, because you are maintaining eye contact with them, you can instantly recognize when they have missed an important point. Second, the images on the overhead are bigger and easier to read. Third, music shown on the overhead looks like music on paper--notes are black and the “paper” appears white--while the images on a chalkboard are reversed--white notes on black or green “paper.” Fourth, musical examples shown previously can be reviewed or compared (just try “un-erasing” a chalkboard!)

Here are some ideas for ways you might use this tool:

- Excerpts from scores can be made into “slides” to aid in score analysis. Save class time by pointing to the measure you wish to discuss instead of having students attempt to find it by counting measures. Use colored pens to highlight salient features of a score. Make multiple copies of an excerpt, distribute them to several students, and compare these analyses in class discussions.

- Give students a slide with staff lines and markers and have them generate sight reading and dictation materials for use in class. Have students evaluate and edit each composition before performing it to reinforce their critical thinking skills and to improve their inner hearing. Use such examples for error detection, harmonization, or variation. Change the old clef, add a new key signature and accidentals to convert a major tune into a minor tune. Divide students into teams and have a race around the room by having each student on each team compose a bar of rhythm and pass the slide along. Read the composite rhythm composition from the overhead. Flip it over and read the rhythm backwards! My students cannot wait for their chance to compose music on slides for use in the class.
- Use a blank slide on top of a slide with staff lines. Write a passage of music on the clear slide. Move the clear slide up and down to demonstrate concepts like transposition and sequence. Flip it over to illustrate inversion, retrograde or retrograde inversion. Use blank slides to diagram graphs of phrase structure while listening to music in real time. Make some slides with lines like those of notebook paper. Break students into groups and have one student record the group's remarks for later use in a full class discussion.

The materials for making and using transparencies are readily available at your local office supply store. Blank transparencies come in boxes of 100 and currently cost around \$35 per box. On the box is a list of the makes and models of machines with which the blanks are compatible. Of the available pens, I prefer the *vis-a-vis* brand fine point water-soluble marker because they are darker and last longer.

It is easy to make transparencies. Simply use blank transparencies like paper in a photocopy machine or an inkjet or laser printer (check the manual first to make sure the machine can accept transparencies). Use a setting that offers the straightest path through the machine to minimize the risk of jams. Try a single blank the first time you use a machine. If you experience no problems, you may

wish to insert a stack into your paper tray (be sure to fan the stack; the blanks tend to stick together). When photocopying in this way you can easily create music examples from existing scores or from blank manuscript paper. In either case you may wish to enlarge a copy of the original item to view more easily its detail on the overhead slide.

Computer users have a few additional advantages. Because the image is slightly raised from the surface of a slide, it will tend to degrade over time. Computers can be used to minimize this degradation by reversing an image before printing. (To do so, go to the page setup options for your printer and choose the setting that reverses an image.) When printed as a reversed image you will actually write on the smooth side of the slide and thus better preserve its image. Examples can also be scanned into the computer and printed onto slides. Annotation and corrections can be added to these scanned images. Enlargements can be made through the computer's page setup commands as well.

A final tip is in order. While you might use a damp paper towel as an eraser for small corrections made in class, this is not the proper tool for big jobs. After a day of teaching you might have twenty or thirty used slides. For these big jobs run water over the slides in the sink and pat them dry. Saving your erasures until after class buys you another couple of minutes of instructional time during class.

So, if your navy jacket looks like you bought it used in Pompeii, or if you sneeze more than you talk in class (even though you bought the "dustless" variety of chalk), or if you are tired of cables, data projectors, and \$150 light bulbs, take that overhead projector back out of the closet and put it to good use.