

If This Is Television, Shouldn't My Intelligence Be Insulted?

Kate Le Maistre

Kate Le Maistre is mathematics and science consultant with Jerome-Le Royer School Commission, English Educational Services, Ville d'Anjou, Quebec. Le Maistre presented a paper to the NCTM Canadian Conference held in Edmonton in 1986.

The Freedom Machine

Those of us who have the responsibility of meeting a class of children up to 200 times a year and teaching them a subject like mathematics need help from time to time. My favorite aid is the videocassette recorder (VCR).

The VCR can free us from complicated technology and from network schedules. Even the manufacturers of VCRs have been surprised by the popularity of the flat box that so many of us store underneath the television set. Two factors that have contributed to this popularity are the convenience and ease of use of the VCR. We can "time-shift" or watch programs at a time convenient to us, not when the networks feel that we should watch them. This is important to a classroom teacher, who can show some or all of a program when it fits into the lesson plan, not necessarily when it is being transmitted.

If you have not yet bought a VCR for your home, the total inservice time needed to train the most unmechanical person to insert, play, rewind and eject a tape is about five minutes. In seven minutes, you can find how to fast forward, pause, put a transparency on the screen, trace the picture for later use on an overhead projector and probably come up with several innovative ideas of your own.

If all else fails, ask one of the children in your class to show the tape; after all, your students are growing up with VCRs as we did with radios.

Compare the ease of operating a VCR with the agony we used to go through in setting up a 16 mm movie. I thought life would be easy when my school bought a self-threading projector, but, although I didn't tear the sprocket holes from as many films, when I stopped the film to ask a question or to explain a point, someone near the projector was bound to call out: "Miss! I can smell something burning!"

How Can I Compete with "Miami Vice"?

A recent study found that "young people between the ages of six and 11 watch, on the average, 27 hours of television a week" (Merrow 1985). As teachers, we cannot control what children watch at home—and there are times when we all like to spend an hour or two looking uncritically at television. While our students are spending so much time using television as recreation, they are not reading books, yet our teaching methods remain textbook-based. I am not suggesting that because children do not read books for entertainment, we should not use books at school. Quite the contrary; part of our role is to encourage students to use as many sources of information as possible, and any good teacher will use as many strategies as possible to get through to students. We are hiding our heads in the sand if we do not use a strategy that is both familiar and attractive to students.

"Talk" and "chalk," closely followed by worksheets, seem to be the basics of the teacher's arsenal. Apart from the occasional overhead projector, the tools in many classrooms have not changed appreciably since the days of the slate and pencil. Yet we are trying to use these archaic tools with a generation of students who are often more technologically sophisticated than we are.



The most recent mathematics programs available on instructional television contain what the professionals call "production values," or what we might call "razzle-dazzle," attention-grabbers or—shades of teachers' college—motivators. These programs include action shots of children of the same age as the intended audience, animation, outside locations, simulations and computer-generated graphics. If anything is going to compete with the glitzy productions of the big networks, these programs stand a good chance.

I Thought We Were Supposed to Encourage Active Participation

Here is a typical scenario for using videotapes in a mathematics class: A Grade 5 teacher finds that her classes on the comparison of decimals have not been as successful as usual. She looks at the teachers' guide to *Mathworks* and decides that the title of program 15 is promising. The program summary describes a sequence in which two girls are running a race, timed to hundredths of a second; an animation sequence involving the Three Bears; another short story in which two boys discover that 0.5 kg of meat is more than 0.33 kg; a gemologist explaining why decimals are important in his work; and a summary sequence in which two girls apply their knowledge of decimals.

The teacher then previews the tape to decide where to place it in her lesson plans. Should she use the whole program? Some scenes only? Should she do the suggested activities before showing the tape? At some point during the program? As a follow-up? Should she try to fit the entire 15-minute program into one class? Are there enough concepts to make several lessons?

Next, she prepares the program activities in the teachers' guide as well as any others that are appropriate, copies any assignment sheets and collects necessary materials. Again the teachers' guide is useful because it provides a black-line master and lists of simple materials used in the activities.

At this point, the only thing left is to show the tape and watch the children's faces. If you've never done this before, be prepared for a pleasant surprise.

I am not suggesting that playing videotapes should be the only, or even the major, activity in mathematics classes. To suggest as much would mean simply replacing one provider of information (the teacher) with another (the "box"). Rather, I am suggesting that a videotape can act as a motivator, as an introduction to a topic, as a unit review, as one more version of the same information, as a tutorial for an absent student—in fact, as one more tool in the teacher's toolbox.

After all, when you're a teacher in front of a class, isn't it reassuring to have a variety of tools in the toolbox?

Suggested Mathematics Programs

- "Two Plus You"
- "Math Patrol"
- "Math Patrol 2"
- "Math Patrol 3"
- "It Figures"
- "Landscape of Geometry"

Check the ACCESS listings for other mathematics programs available on instructional television.

Reference

Merrow, John. "Children and Television: Natural Partners" *Kappan*, November 1985, p. 212.