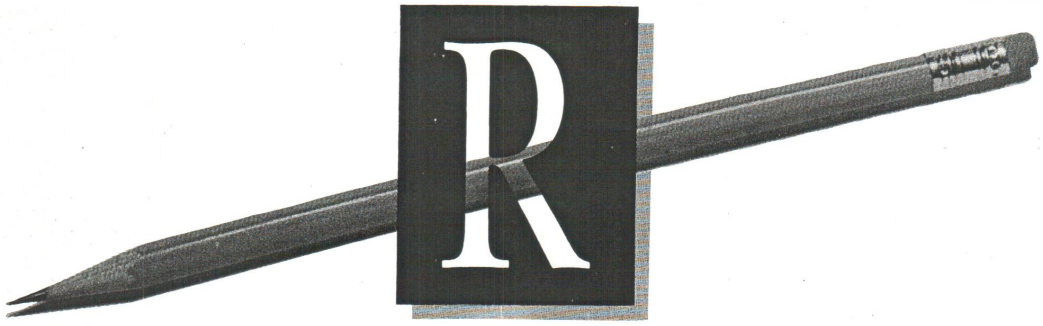
THE RESOURCE CENTER



By MARGARET MORABITO

Students in nine elementary schools in a Michigan district are learning from one mobile computer lab.

I'm now reassured that *RUN* readers are really paying attention to this column every month. In September's Resource Center, I offered to provide a disk of public domain educational programs, and it brought a huge response. I'm wearing out our MSD dual drive making copies, but it's worth it.

By the time you'd read my September offer, I had compiled a double-sided disk full of educational programs. Many of you sent a single-sided disk, which meant I could only give you half the programs. Therefore, I'm renewing my offer. If you'd like to receive a second disk of educational programs that have been donated by Resource Center readers, send me a disk at the address at the end of this article and I'll make you a copy. You might send a double-notched disk, in case I have even more programs by that time.

I'm also renewing my request for educational program donations. If you've written a program that you think other parents, teachers and students would benefit from, and you don't have an unquenchable thirst for profit, please send your program to The Resource Center. It will be shared with all our readers.

Now, on to the topic for this month: How are schools dealing with the responsibility of implementing computer literacy requirements?

The Problem

Three basic concerns are expressed in the letters I receive: not enough money, not enough computers and not enough computer teachers. The number of school districts that require teaching computer literacy to all students is growing, but in many districts, the funding for computer hardware, software and teaching staff is limited, so the job of implementing computer literacy courses is proceeding slowly.

The Grand Haven, Michigan, public schools faced a budget challenge last year when the school district decided to install a computer literacy program for all students. The specific objectives for the elementary school students were to acquire the ability to select and use software; to generate skills in basic keyboarding, problem-solving and decision-making, and in Basic and Logo programming; and to develop a knowledge of computer terminology, the uses of computers for individual and career choices, and the ethics of computer use. With these objectives established, the district had to figure out how to best equip its nine elementary schools, enrolling 180 to 400 students each, with computers and computer teachers, and not go broke in the process.

Spreading the Money Around

Grand Haven decided to develop a new teaching position: elementary computer teacher/consultant. This person would travel throughout the district to provide computer instruction in all nine elementary schools. The job requirements were a minimum of nine hours of coursework or equivalent experience in computer education, plus teaching or administrative experience.

The job included coordinating all computer activities for grades K–6; providing hands-on experience in a lab setting for grades 3–6; responsibility for the purchase, set-up and maintenance of equipment; scheduling lab classes; and other functions related to the computer project. Russell Stanton, a teacher for 16 years, got the job and is now head of a traveling computer lab composed of 15 C-64 computers, each with a 1541 disk drive and 1702 monitor, and a variety of printers.

The choice to buy Commodore equipment was based primarily on cost effectiveness. Stanton is continually asked, "Why not Apples?" His answer is simple: "With Commodore we are able to provide 15 set-ups, and all the goodies; with Apple I would have only six!" The district also wanted computers that would be portable, popular and easily maintained or replaced. In Stanton's words, "Commodore is the best choice; sound educational software is available, the hardware is entirely sufficient, the price is right, and the C-64 is the computer most likely to be in the students' homes."

Stanton decided to do some comparison shopping when equipping his lab, to keep the costs as low as possible. Instead of buying from one dealer, he searched a wide area and

came up with a variety of suppliers who provided different components for the Commodore systems.

As for software, he relies heavily on public domain programs. The lab's library has over 2000 programs that Stanton can copy for use at each of the 15 computer stations. Much of this software comes from the Toronto Pet Users Group and from Public Domain, Inc. Stanton points out that with public domain software, "legal questions such as site licensing, multiple loading and backup copying never arise. A second benefit is that these programs are nearly free—that leaves money in the budget to buy commercial software when necessary."

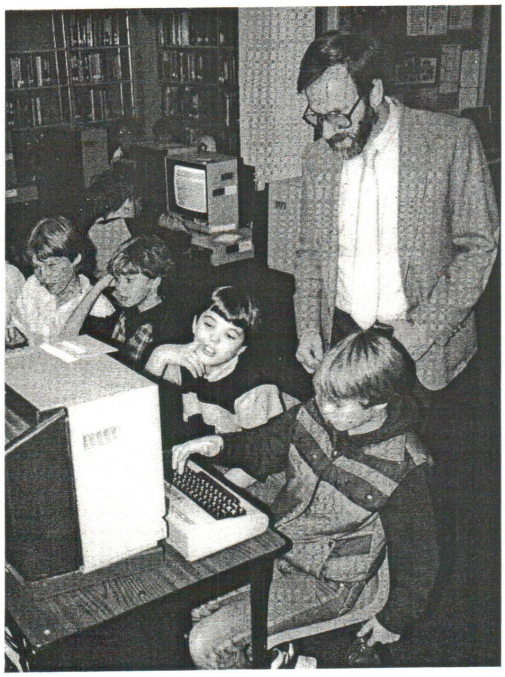
Even when he's buying software, Stanton has been able to keep costs down. He uses Easy Script for teaching word processing, and was able to get 15 copies for only $12 each from a liquidator.

Lab Organization

The 15-computer traveling lab has been in operation since November of 1985, serving the 5th and 6th graders in all nine Grand Haven elementary schools. The future plan is to create similar portable computer labs for grades 3–4, and ultimately establish a permanent lab in each school's media center, with individual computers in the classrooms as needed.

During the year, Stanton and his lab spend one month in each of the nine schools. One week before a scheduled move, he contacts the next school's principal, who has the teachers sign up for times when they can bring their classes into the lab. Every 5th and 6th grade student receives at least nine class sessions (45–55 minutes each) of formal instruction. Through the first two years of the computer literacy program, teachers are required to attend the computer lab sessions along with their students, in the hope that they'll become familiar with the machines and start using them for their own class instruction.

The computer lab is set up in the media center of each school. The media center assistant learns along with the students, and acts as a supervisor and resource person when the computer teacher and classroom teacher aren't present. This provides extra staffing for the lab, and, combined with the lab's all-day hours, encourages students to use the computers any time—during recess or free time, or in small groups when their classroom teacher gives permission.



Grand Haven school children using the traveling computer lab.

Moving Right Along

The logistics of moving an entire computer lab from one school to another might seem complicated, but Stanton has worked it out smoothly. The actual moving of the equipment is done by two men and a mid-sized moving truck.

Stanton relates that "the monitors, power supplies and electrical cords are permanently attached to 36-inch wheeled tables. When moving day comes, I unplug the keyboards and disk drives and pack sturdy cardboard boxes with about six items each. Because of their delicate nature, printers are transported in their original cartons.

"The whole setup is then moved to the next school building. In my most recent move, it took me less than two hours to pack up; less than one hour to load, move and unload; and two and a half hours to set it up." According to Stanton, there have been no problems with broken equipment during the moves.

Actually, there haven't been major problems with any aspect of the lab operation. The project is going smoothly—the perfect solution to providing each school with computers and computer instruction.

A portable computer lab with a traveling computer teacher is a unique solution to a problem that many school districts share. It enables students in all of the schools to have individual access to a computer and receive the same top-quality instruction from a specialist. It might be a workable solution for your school district.

If you would like more information about the portable computer lab and Grand Haven's computer literacy program, contact Russell Stanton, Elementary Computer Instructor, Grand Haven Public Schools, Instructional Media Services, 1415 Beech Tree St., Grand Haven, MI 49417. Ⓡ

If you're using Commodore computers for educational purposes (at home or in school) and would like to share your experiences through The Resource Center, write me a letter detailing the equipment you're using, subject areas being taught, grade level or age of your students, software you are using and any other information you feel like including.

If you'd like to donate public domain educational programs to The Resource Center for sharing with other educators and parents, please send along a disk with a brief description of the programs. Send correspondence and disks to:

Margaret Morabito
The Resource Center
c/o RUN *Editorial*
Elm St.
Peterborough, NH 03458

You can also leave mail in my on-line mail boxes: CompuServe (70616,714) and Q-Link (MARGM). ■