

Computer Center

NABT Computer Use Survey

Richard Duhrkopf
Department Editor

NABT recently completed a survey of members regarding computer use. The purposes of the survey were to determine computer usage among members and to collect useful data to promote both advertising in *ABT* and exhibits at the national meetings. Approximately 1,300 members were asked to complete the questionnaire. Of those, 368 (28%) responded. The survey was conducted by the *ABT* managing editor, Cynthia Rosso, who has kindly supplied me with the results of the survey, and I thought it was of sufficient interest to present in the column. The survey and results are as follows:

At what level do you teach?

Elementary	11 (2.9%)
Middle/Jr. High	18 (4.8%)
Secondary	290 (78.8%)
2-Yr. College	35 (9.5%)
4-Yr. College	51 (13.8%)

Do you use computers in classroom or laboratory teaching?

Classroom	73 (20.0%)
Laboratory	46 (12.5%)
Both	88 (24.0%)
Neither	157 (42.7%)

Do you use computers in administrative work, like grading?

Yes	249 (67.6%)
No	116 (31.5%)

Do students get hands-on time on computers in school for biology/life science?

Yes	178 (48.0%)
No	189 (51.0%)

Please check the ways in which your students use computers for biology/life science.

For graded work	46 (12.5%)
For enrichment	167 (45.3%)
Lab Work	105 (28.5%)

How many computers does your department have access to?

0	49 (13.3%)
1-5	153 (41.6%)
6-10	66 (17.9%)
11-20	60 (16.3%)
21 or more	37 (10.1%)

What kind of computer do you and/or your students use?

Apple	283 (77.0%)
IBM	67 (18.2%)
Commodore	39 (10.6%)
TRS-80	24 (6.5%)

Other computers named (by 4 or less respondents each): Atari, AT&T, Franklin, Pine Com, DEC PDP, Panasonic, Tandy 1000, DEC Rainbow, Wildcat Hydra, TI 99/4A, ITT, Compaq, Prime Wang, Digital, Vax, Kaypro, Hewlett Packard, Zenith.

Would you like to see more computer products, including software, hardware and books, advertised in the *American Biology Teacher* journal?

Yes	275 (74.7%)
No	60 (16.3%)

Would you like to see more computer software, books and articles reviewed in the *American Biology Teacher* journal?

Yes	307 (83.4%)
No	41 (11.0%)

The final item asked for suggestions of computer software or supply firms that should be encouraged to advertise in the journal. The summary of those comments is two pages long. The responses included many names of specific software publishers and distributors along with a variety of comments. Naturally, I found the comments interesting.

There were several comments supporting the idea of presenting more software reviews (as might be expected from the results of the question on software reviews in the survey). I hope that we will be satisfying some of those members in the coming months. Some software is already being reviewed.

There was one comment asking for more columns about programming. Those columns are the most stimulating for me to write. The satisfaction that I feel when I develop a working, usable program is remarkable. I hope

to continue with those types of columns, but they are the most difficult to write. Columns on programming are the most time consuming for a couple of reasons. First, the programs must be as "dialect free" as possible; each micro has its own version (and in some cases, a variety of versions) of each language. I try to write programming columns so that the programs can be used as widely as possible. I have written several different types of applications for the Macintosh that all rely heavily upon the graphics abilities and other unique features of the Mac. Such machine-specific programming is only of value to those with that particular computer. To write the general kinds of programs that will run on a variety of computers with little change is very difficult. The second reason why those columns are time consuming is that even the simplest program must be tested in a variety of ways to make sure it works the way it is supposed to. As I have said many times in the past, I encourage anyone with any interest in these topics to get in touch with me about presenting those topics in a column.

There was one suggestion about making greater use of this column as a clearinghouse for public domain or personally developed software. I hope that with the addition of the an-

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nouncement of new software, we will be providing more of that type of information. I encourage any readers who have software they have developed either to distribute themselves or for public domain to send me an announcement of the program. I will be glad to list it in the column.

There were many comments asking for information about software on specific topics (marine biology, evolution, genetics, population dynamics, test generators). Such information will be developed as such software is reviewed. I found those comments encouraging because they demonstrate there are people who are interested in finding software to use.

Some comments asked for more information about general software such as word processors, data bases and spreadsheets, and how they can be used. As I wrote last month, I intend at least one column along those lines.

Finally, there was one negative comment to the effect that biology is the study of life and not computers. That comment indicates to me that we still have some work to do to educate some teachers as to the ways in which the study of life can be facilitated by using computers. A computer is a tool, just like a microscope, balance, spectrophotometer, calculator or text book. If such tools are used well, they can greatly increase our students' appreciation of life around them.

New Software (and Hardware)

Thornton Associates, Inc., (1432 Main Street (RTE. 117), Waltham, MA 02154) has announced a new product called the SPI™ System. It is described as "an intelligent sensor processor interface for data acquisition and analysis." It is intended for use on the IBM PC and Apple IIe. The system includes an interface unit which is priced starting at \$950 (including host software), probes which range from \$35 to \$75, and probe specific software starting at \$89.

The American Heart Association is distributing two diskettes. The first, called "Heart Anatomy and Physiology," is intended for secondary level students. The second is called "Heart Medley," intended for primary level students. We have received versions written for Apple II series computers which currently are being reviewed. No information about price or other computer versions was supplied, but the documentation referred people to their local heart associations for information.

AV Reviews

Rachel Hays
Department Editor

Critical thinking. 1986. Educational Dimensions Group, Stamford, CT. 2-part sound-filmstrip. 29 min. Purchase \$80, video \$89.95.

A hot-and-cold collection of loosely associated photographs begins Part I of *Critical Thinking*. Don't give up, for the taped portion carries you through rather nicely into a strong presentation that would be most appropriate for middle and junior high schools and into the lower high school grades. With proper teacher preparation utilizing the well prepared Teacher's Guide, upper elementary schools also could benefit.

The examples and explanations of critical thinking approaches to problem solving are excellent and well presented. They stimulate interest in problem-solving that can be further pursued as a follow-up. Each of the selected examples were new and presented fresh problems to solve rather than the same old puzzles we are used to seeing. Again though, I found myself distracted by much of the photo-association near the end.

The audio portion might be suitable by itself if the user encounters student disinterest or straying concentration.

There is very little audio-visual material available for rent or purchase on this important topic. *Critical Thinking* is certainly a worthwhile selection, especially for the middle grades.

Tommy A. Rigsby, Sr.
Marion Abramson Senior High
New Orleans, LA

Insects are amazing. 1987. National Geographic Society. Washington, D.C. 2 sound filmstrips. 28 min. Purchase: \$62.95.

What is an Insect? and *Helpful and Harmful Insects* are excellent materials for use in grades K-3 though some older children may also benefit from them. The helpful guide for the first filmstrip suggests a finding field trip as preparation for the filmstrip. There is no follow-up suggested for that activity. Perhaps, you could guide a col-

lection and use it in another of the suggested preparation activities—listing things your students know about insects. Then, after the filmstrip, have them sort the insects and noninsects before returning them to the collection area. Students will have seen characteristics that all insects share, different kinds of mouth parts and how they work, details of insect eyes, insect communication and protection from enemies. The silk worm is used to illustrate life stages.

Another field trip following the second filmstrip will give your students an opportunity to practice recognizing insect damage and harmful and helpful insects. Pollinating, honey making, and breaking down large organic debris are helpful roles insects play. That last role leads into a discussion of the judgment that goes into discerning between helpful and harmful. This discussion is appropriate to the concluding topic of chemical sprays to control insects.

This set will make a great addition to any elementary school resource center. Most suggestions in the guide are complete enough that even those teachers who are not science oriented can create fun science classes.

Rachel Hays
Weld County SD 6
Greeley, CO

The dragon and the damsel. 1985. London Scientific Films. London, England (available from Pennsylvania State University). Video. 24 min. Purchase: 1/2" \$129, 3/4" 198; rental \$16.50.

This is an excellent program on the order Odonata of the class Insecta, which is not apparent by the title.

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