

MICROCOMPUTERS IN EDUCATION

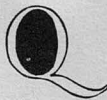
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# QUEUE

5 CHAPEL HILL DRIVE — FAIRFIELD, CT 06432

A dramatic technological revolution has made computers available for the price of a color television. Queue offers three ways for you to learn about these personal computers and their impact upon education. Each of these are unique (i.e. available nowhere else), informative, and reasonably priced:

1. Queue's FALL 1980 Catalogue - A comprehensive directory of educational software for the four most popular microcomputers - Apple, Atari, Pet and TRS-80. Hundreds of programs from over forty publishers (almost twice our previous catalogue) are grouped by computer, subject area and grade level. Description of every program is provided. Queue's catalogue offers a wealth of invaluable information and the convenience of one-stop shopping - all programs can be ordered directly from Queue! Queue's FALL 1980 Catalogue is only \$8.95 prepaid.

2. Microcomputers in Education - A new monthly newsletter covering software reviews, article and book reviews, new product announcements, reports on computers in the classroom and other information of interest to educators. Annual subscription only \$15.00 prepaid.

3. Educational Software Symposium - An intensive two day symposium to be conducted at the Holiday Inn in Bridgeport, Connecticut on January 17-18, 1981. Seminars to be conducted by leaders in the Educational Software field will include such topics as "Educational Software for Elementary Schools", "Educational Software in the Mathematic Curriculum", "Educational Software in the Science Curriculum", "Computer Assisted Instruction in Foreign Languages", "Can Computers Teach English and Reading?", "Simulations", "Computer Education", "Writing Educational Software" and "New Technological Developments." There will also be an extensive Exhibit Hall and an opportunity to review software programs at first hand. Bridgeport is easily accessible by train (Amtrak and Conrail stop at Bridgeport, four blocks from the Holiday Inn), car (the Holiday Inn is right off I-95 at Exit 27) and plane (airport limousine from La Guardia and Kennedy stops at the Holiday Inn). Economical hotel rooms (\$38-single, \$42-double) are available. Queue will provide complimentary transportation, program and admission to Bridgeport's Jai Alai Fronton on Saturday evening, January 17th, to all registrants. Attendance and hotel rooms are limited. Registration is \$85.00 per person.

EXTRA PROGRAM - Another symposium will be conducted at the O'Hare Hilton in Chicago on Feb. 7-8 1981. Registration is \$85.00 - hotel rooms \$45.00 single or double - special rate available only through Queue.

Monica Kantrowitz  
President

TO: Monica Kantrowitz, President, Queue, 5 Chapel Hill Drive, Fairfield, CT 06432

Yes, I would like to learn more about microcomputers in education. Please send me:

\_\_\_\_\_ Queue's FALL 1980 Catalogue @\$8.95 \_\_\_\_\_

\_\_\_\_\_ Queue's Catalogue #2 w/additional  
Pet listings @\$2.00 with the above \_\_\_\_\_

\_\_\_\_\_ Microcomputers in Education  
One year subscription @\$15.00 \_\_\_\_\_

\_\_\_\_\_ Register me for the Educational Software \_\_\_\_\_ (in Connecticut) \_\_\_\_\_  
Symposium @\$85.00 and send hotel & travel \_\_\_\_\_ (in Chicago) \_\_\_\_\_  
information

I enclose my check for (total) \_\_\_\_\_ payable to QUEUE.

NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_

## EDUCATIONAL SOFTWARE SURVEY

Educational software for microcomputers is beginning to come onto the market at a fairly rapid pace. Over 100 publishers are now offering some educational software and at least 30 publishers specialize in educational software. In addition, the hardware manufacturers and distributors such as Bell & Howell are now producing educational software. So are many school systems and publicly sponsored organizations.

Software is available at every level from pre-school through college, with the most concentration in elementary school mathematics, where such publishers as Educational Activities, Edu-Ware Services Inc., Educational Micro Systems, Redcomp, Edu-Ware (Mass), Robert R. Baker, MicroLearningware, Neal Jensen, TYC, Steketee Educational Software, Micro Ed and Teacher's Pet have strong offerings. Another very strong area, perhaps surprisingly, is Chemistry, where outstanding programs are available from Programs for Learning Inc., J & S Software, Redcomp, Microphys and Conduit. Other scientific areas such as physics and biology have quite a bit of software available particularly from Conduit, Redcomp, Microphys and TYC.

Elementary reading and language skills have a fair amount of programming available, with the best for the youngest students coming from, among others, Intellectual Software, T.H.E.S.I.S., Mercer and Program Design Inc. The most complete offerings in reading and language at all ages come from TYC, Micro Ed and Educational Activities. Program Design Inc., Sliwa, Tycom, Neal Jensen, Microphys and Edu-Ware Services are also well represented.

Higher level mathematics and computer education have only limited programming available as yet, somewhat surprisingly, with the best upper level mathematics programming from, among others, National Software Marketing Inc. and Redcomp, and the best in computer education from Program Design Inc. and Sterling Swift.

Foreign language computer assisted instruction a potentially fertile area, has limited offerings at present, with the best efforts coming from Micro Learningware and TYC, among others.

Economics and business education have not received much attention yet, although Micro Learningware and Robert R. Baker, Jr. have offerings.

Somewhat surprisingly, there is far more software available for PET than for any other computer. This is largely because the two most prolific educational software authors Allen Rosen of Microphys and Dr. Thorwald Esbenson of Micro Ed have concentrated primarily, if not solely, on the PET. Commodore and PET retailers would do well to exploit this advantage, which, however, is unlikely to last very much longer.

TRS-80 is clearly in second place as to software availability, although there continues to be many opportunities for software written for the TRS-80.

ATARI, of course, still has limited amounts of educational software available from outsiders, primarily Program Design Inc, T.H.E.S.I.S., and Image, but an impressive amount of in-house software (actually written on contract by outsiders including Program Design Inc., Science Research Associates and Dorsett Educational Systems.

Apple, whose hardware seems to have had the most appeal for many educators, is lagging far behind on the availability of educational software. There are several possible explanations for this, including the higher initial cost of hardware, which may have discouraged the garage industry types, the switch from Integer Basic to Applesoft, which has left the market bifurcated, and the heavy emphasis on disk, which has again increased the entry cost. If the stock market's optimism about Apple is justified (a proposed public stock offering is being eagerly anticipated - Radio Shack and Commodore have already had big run-ups) tremendous opportunities are available for publishers of educational software for Apple, particularly Applesoft disc.

Only one publisher, Program Design, Inc., currently reaches all four popular microcomputers and does so with a variety of English and Mathematic programs. Three publishers reach Apple, Pet and TRS-80, Educational Activities, with strong offerings in English and Mathematics, Conduit, with primarily scientific programming and Program for Learning, Inc., with offerings in Chemistry. Micro Learningware has a variety of programs for both PET and TRS-80.

Dr. Daley's Software Library is available for both PET and Apple. Most other publishers have focused on only one computer. As we have already mentioned, the two most prolific educational publishers, Microphys and Micro Ed have concentrated on PET. So have Teacher's Pet (Glen Fisher) and Tycom. Redcomp, Educational Micro Systems, Neal Jensen, Edu-Ware (Mass), Steketee Educational Software, Robert R. Baker, Jr., Med Systems Software, National Software Marketing and Intellectual Software, George Earl and Edu-Ware Services Inc. have all concentrated on the TRS-80. Sliwa, Cook's Computing Co., Muse and J & S Software have all concentrated on the Apple.

Texas Instruments has not made much of an impact as yet. Image has a few products available and Micro Ed plans to make its large library available to Texas Instrument users. They would appear to have the field to themselves at the present time. There is a tiny amount of educational software available for North Star, OSI and other microcomputers, but not enough to warrant mention.

The amount of educational software available appears to be doubling every six months, as existing publishers expand their lists and new publishers come into the marketplace.

We will regularly update this survey and explore other aspects of the marketplace as well in future issues.

#### RESOURCE CENTERS

MICROCOMPUTER RESOURCE CENTER, Room 655G, Thorndike Hall, Teachers College, Columbia University, 525 West 120th Street, New York, NY 10027. Open 5-7 p.m., Monday-Thursday - call (212) 678-3740 or drop in. Educators free. Popular microcomputers are featured as well as a collection of books, periodicals and software.

MICROCOMPUTER CENTER, San Mateo County, Office of Education, Educational Resource Library, 333 Main Street, Redwood City, CA 94063. Apple, Bell & Howell, Atari, Commodore (PET) and Radio Shack hardware on display, commercial software for evaluation and public domain software for exchange. Weekdays 8:00 a.m. to 5:00 p.m.

COMPUTER RESOURCE CENTER, 8 Eliot Street, Cambridge, MA 02138. (617) 547-3890. Sponsored by Technical Education Research Center, houses microcomputer hardware, software, curricula and technical information. Director is Dr. Richard Kane, formerly Director of the Computer Center at Deerfield Academy.

MICROSIFT (Microcomputer Software and Information for Teachers) Northwest Regional Educational laboratory, 710 S.W. Second Avenue, Portland, OR 97204. A cleaning house for microcomputer software, courseware and hardware information for schools.

## SOFTWARE REVIEWS

Step by Step (Apple, Pet, TRS-80 3-cassettes \$49.95, 2-Apple Discs \$59.95), Vocabulary Builder 1 (Apple, Atari, Pet, TRS-80 \$14.95, Apple Disc \$19.95) and Vocabulary Builder 2 (Apple, Atari, Pet, TRS-80 \$14.95, Apple Disc \$19.95) all from Program Design, Inc. (PDI) received very good reviews (4 on a scale of 1-5) in ease of use and educational value from James Winebrenner, Computer Education Specialist for the Livonia Michigan Public Schools, writing in the MACUL Journal, Vol. III, No. 2, Spring 1980. Step by Step also received a rare review in the February, 1980 issue of 80 Microcomputing. Story Builder/Word Master (Apple, Pet, TRS-80 \$14.95, Apple Disc \$19.95) and Memory Builder/Concentration (Apple, Pet, TRS-80 \$14.95, Apple Disc \$19.95) also from PDI, received good marks from Mr. Winebrenner in ease of use, but lower grades on educational value.

Uncle Sam's Jigsaw (Applesoft 32K \$12.95) from Muse received an excellent review for educational value and use of machine capability from Mr. Winebrenner in the Spring 1980 MACUL Journal, but was rated lower as to ease of use.

Allen Rosen, author of the Microphys programs, received generally excellent marks from MACUL. Microphys' programs (Pet \$20 each) were also reviewed by Robert Elliot Purser in his Purser's Magazine, Winter, 1980. We quote with Mr. Purser's permission:

"These programs comprise one of the first educational series designed for the classroom. Over 100 cassettes are available in subjects such as math, chemistry, physics and English. The science cassettes contain two programs on the same subject. One is a CAI program while the other is an exam/homework program on the same subject.

The PET versions of these programs are surprisingly good... Most of the programs are quite effective. I am particularly fascinated by the science programs.

On the whole, the programs are a professional quality product for schools. Even so, some parts are still a little awkward... Instructions are given for modifying the programs. I feel these modifications could have been accommodated in the program itself. Parts of the vocabulary programs seem a bit trivial.

The programs were all written by Allen I. Rosen. He has done an excellent job."

Spelling Builder (Apple, TRS-80 \$18.95, Apple Disc \$23.95) and Minicrossword (Apple, Atari 24K, Joystick, Pet, TRS-80 \$14.95, Apple Disc \$19.95) from PDI were reviewed by Mr. Purser in his Winter 1980 Software Directory as well. Again, we quote with permission:

"MINICROSSWORD is another outstanding program by Dr. Dean Victor. In the Fall issue of this magazine, I reviewed another of his well-written programs: 'Spelling Builder'.

'Spelling Builder' is a series of spelling instructions while MINICROSSWORD is a series of educational games. Both are an excellent addition to an education library.

The program does as the name suggests. It creates crossword puzzles from a built-in spelling vocabulary. It is designed to teach words as well as spelling. It does this very well.

I RECOMMEND THIS CASSETTE."

Two other programs rated "good and interesting" by Mr. Purser in his Winter 1980 Software Directory were Ecology Simulation I (TRS-80 \$24.95) by Creative Computing "Ideal for a teacher's classroom demonstration or as part of a science project" and Crossbow (Pet \$9.95) by Hayden Book Co. "A good math education game for fractions."

Flash Spelling (Pet \$14.95) by Educational Activities Inc. received an overall B rating from Dan Isaacson in The Computing Teacher, Volume 8, Number 1. Personalization, graphics and scoring were rated pluses, fixed flash-time a negative.

Readings in Literature (Apple Disc \$24.95) by George Earl, reviewed in the same issue of The Computing Teacher received high marks for scoring and pedagogic approach, lower grades for graphics and ease of use. Overall, it was recommended for home use enrichment rather than schools.

The Playful Professor (TRS-80 \$9.95) and The Human Adventure (TRS-80 \$9.95) from Med systems Software received high marks from Sherry M. Taylor, writing in the September 1980 issue of S-80. Ms. Taylor's only complaint was that at the third difficulty level, working with fractions, the computer is quite slow to respond in The Playful Professor. Nevertheless, overall she was very impressed with both programs.

C. Brown, writing in the 80 U.S. Journal January-February, 1980, reviewed MICROCOSM I (TRS-80 \$19.95) from Basics & Beyond and found it to be a good package and exceptional for the price. David Lubar's writing in the September 1980 edition of Creative Computing came to a similar conclusion. J. Crocker also writing in the January-February issue of the 80 U.S. Journal found Math Pak I (TRS-80 \$14.95) by Edu-Ware (Mass) interesting, fun, easy to use, an excellent, sophisticated package and recommended it to all parents of school-age children.

Robert Elliot Purser in his Purser's Magazine, Summer 1980 edition, reviewed Compu-Math Fractions (Applesoft 48K Diskette \$39.95) from Edu-Ware Services Inc. "This program is well written and easy to use... It is so good that I am recommending it to all elementary schools."

Mr. Purser in the same issue, also praised highly Beginning Russian (TRS-80 Disk \$24.95) and Teacher (TRS-80 \$9.95) from Instant Software.

Mr. Purser listed Micro Gnome's CAIWARE (TRS-80 \$42.95) as a program so good that over 10,000 copies will be sold and indicated that he had received a large number of favorable reviews of Tycom Associate's programs - FRENCH (Pet \$15.95) and ALGEBRA (Pet \$17.95).

Compu-Read (Applesoft Disk \$24.95) received high marks from David Lubar in the September 1980 Creative Computing, although Robert Purser is much less enthusiastic about it. Compu-Read can also be purchased with Perception and Statistics all in Edu-Pak I on one diskette for \$39.95.

Simulated Computer from Steketee Educational Software (TRS-80 \$10.95) was rated excellent by Mr. Lubar in the same issue of Creative Computing.

All of the above programs are available from Queue, 5 Chapel Hill Drive, Fairfield, Connecticut 06432. They are more fully described in Queue's Fall 1980 Catalogue \$8.95; Queue's Catalogue #2 \$2.00; or herein. Please specify computer when ordering.

## NEW SOFTWARE

PET

CP20132P	SCRAMBLED LETTERS Words with the letters scrambled. Two students compete to unscramble the letters keying in the correctly spelled word. Add your own words to the program.	Educational Activities, Inc.	\$14.95
CP20133P	FLASHSPELLING Words are flashed one-by-one on the screen. The student can attempt typing in the correctly spelled word. If the student gives an incorrect response, the same word is flashed again for a longer period of time. Teachers may add their own words to the program.	Educational Activites, Inc.	\$14.95
	BOTH OF THE ABOVE		\$28.50

TRS-80, Level II, 16K

MSS1	THE PLAYFUL PROFESSOR A mathematics learning aid that provides tutoring in integer mathematics as well as fractions, for the 4 basic operations. demonstrated solutions are completed step by step in a blackboard format easily understood by grade school children. Problems are presented in a game format that places the pupil in a 60 room mansion from which the pupil must escape.	Med Systems Software	\$ 9.95
MSS2	THE HUMAN ADVENTURE An adventure game played inside a human body afflicted with cancer. Teaches a great deal about human anatomy, physiology and biology.	Med Systems Software	\$ 9.95
MSS3	MONEY MASTER A game designed to teach young children the use of money, adding coins and counting of change. Only very basic reading skill required. Similar in format to The Playful Professor, but less complex.	Med Systems Software	\$ 9.95
EJY1	SIGNING Software instruction on signing, communication with hands.	En-Joy	\$19.95
EJY2	GUITAR CHORDS II Computerized assistance in learning to play musical instrument.	En-Joy	\$19.95
EJY3	BANJOY PLAYER Computerized assistance in learning to play musical instrument.	En-Joy	\$14.95
EJY4	MANDOLIN PLAYER Computerized assistance in learning to play musical instrument.	En-Joy	\$14.95
EJY5	UKELELE PLAYER Computerized assistance in learning to play musical instrument.	En-Joy	\$14.95
CMI1	BPILOT A version of PILOT. Includes the execute indirect command, a complete match instruction, and long labels. Uses familiar commands.	Computer Aided and Managed Instruction	\$24.95
CMI2	BPILOT DISK Same as above - disk version.	"	\$24.95

ED006T	EDUCATIONAL PACKAGE I Cell simulation, keeping cell alive; Survival in the wild simulation, keeping selected animal alive; Economy, simulation in which user plays president determines economic policies of U.S.	Micro Learningware	\$24.95
ED016T	SCIENCE PACKAGE II 5 programs, drill & practice. Valence, Elements (identify as metal, non-metal, inert gas), Symbol, Atomic Weight and Atomic Number.	Micro Learningware	\$24.95
ED017T	GRAMMAR PACKAGE 5 programs designed to test student's ability to recognize adjectives, adverbs, nouns, verbs and pronouns.	Micro Learningware	\$24.95
ED019T	JUNIOR HIGH MATH PACKAGE Students must identify and/or complete magic squares with whole and decimal numbers.	Micro Learningware	\$24.95
ED020T	GEOLOGY PACKAGE I 4 quizzes on epochs & periods, time duration, animal, plant life present and geological conditions.	Micro Learningware	\$24.95

ATARI & Texas Instruments

IM6402AT IM9402TI	WALL STREET CHALLENGE Challenging stock market simulation. 8K and 16K versions on one cassette.	Image	\$14.95
IM6403AT IM9405TI	MIND MASTER Strategy game. Multiple players may select differing levels of difficulty. 8K and 16K on one cassette.	Image	\$14.95
IM6404AT IM9404TI	STRATEGY PACK I Roman checkers and Frame Up. Two strategy games. Joysticks optional.	Image	\$19.95
IM6406AT IM9406TI	SKILL BUILDER I Two skill games - Bingo Duel and Math Hunt. Joystick required.	Image	\$19.95

ATARI

TH7	MATH FACTS - Level I Grades K-2. Numbers, Number Placement, Number Words, (1-20) Addition & Subtraction. (16K Basic)	T.H.E.S.I.S.	\$15.00
TH8	CRIBBAGE Two different levels. (24K Basic)	T.H.E.S.I.S.	\$15.00

APPLE II - APPLESOFT

GZ1	DIPT A package of puzzles and brain teasers, designed to be intellectually stimulating. Most problems suitable for age 12 - adult. (48K)	George Zimmerman	\$29.95
STC1	SPEED READING A complete course designed to allow you to read quicker and faster with better retention and skills. Several different levels of instructions. A true CAI program that allows one to grow with the program and add their own lessons later. Program diskette and instruction manual. (48K)	Software Technology for Computers Inc.	\$200.00



PET and TRS-80

ED021P SCIENCE PACKAGE III Fire drill & practice programs Micro Learningware \$24.95  
ED021T with various formula dealing with the physics of  
motion.

APPLE II INTEGER BASIC, APPLESOFT and TRS-80, LEVEL II

STS1A COURSEWARE/SOFTWARE Computer education tutorial Sterling Swift \$74.95  
STS1T including BASIC programming, branching, next loops,  
arrays, character strings. Functions & subroutines  
and graphics. 2 discs, workbook. Please specify  
computer

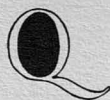
ALL THE ABOVE SOFTWARE IS AVAILABE DIRECTLY FROM:  
QUEUE, 5 Chapel Hill Drive, Fairfield, CT 06432.

ORGANIZATIONS/PUBLICATIONS

We recommend several organizations and publications:

1. Computer-Using Educators- A California based and oriented organization with some national membership publishes an informative newsletter six times per year. Membership is \$4 per year! Make check available to Computer-Using Educators and mail to Don McKell, Independence High School, 1776 Education Park Drive, San Jose, CA 95133.
2. International Council of Computer Educators- Primarily Oregon based, expanding rapidly, particularly in the Western United States. Publishes The Computing Teacher, an excellent journal, seven times this year, nine times next year. Subscriptions and membership is \$10/year, \$20/two years (16 issues). The Computing Teacher c/o Computing Center, Eastern Oregon State College, La Grande, OR 97850.
3. Michigan Association for Computer Users in Learning- Michigan based organization, publishes MACUL Journal two to three times per year and a bi-monthly newsletter "Checkpoint". Membership is \$5 to Larry R. Smith, Wayne Intermediate School District, 33500 Van Bord Road, Wayne, MI 48184.
4. Boston Computer Society- Annual membership \$15. Publishes an excellent journal bi-monthly Boston Computer Update with a Computers in Education column. Has several user sub groups including an educational grouping. The Boston Computer Society, 17 Chestnut Street, Boston, MA 02108.
5. Classroom Computer News- Published bi-monthly. Subscripton \$9 per year. Classroom Computer News, Box 266, Cambridge, MA 02138.
6. Society for Microcomputer Applications in Language and Literature publishes an excellent newsletter quarterly, MICRO. Membership only \$4 to Wendell Hall, University Station, Box 7134, Provo, Utah 84602.
7. Purser's Magazine- Outstanding collection reviews and evaluations of TRS-80 Level II, Apple and Atari software with comprehensive directory. Published quarterly. Subscription \$12 per year, \$24 per year outside North America. Free copies are available to anyone offering classes for teachers on the introduction of computers to their students. Specify date of class and number of teachers enrolled. Purser's Magazine, P.O. Box 466, El Dorado, CA 95623.

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