DOCUMENT RESUME

ED 360 952 IR 016 180

AUTHOR Smith, Gary R.
TITLE Estimating Computing Hardware and Software Available to Preservice Students in Metropolitan Detroit Schools.
PUB DATE Mar 93
NOTE 19p.
PUB TYPE Statistical Data (110) -- Reports - Research/Technical (143) -- Tests/Evaluation Instruments (160)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS College Students; *Computer Assisted Instruction; *Courseware; *Educational Technology; *Education Majors; Elementary School Teachers; Elementary Secondary Education; Field Experience Programs; Higher Education; *Microcomputers; *Preservice Teacher Education; Questionnaires; Secondary School Teachers; Student Teachers; Tables (Data); Urban Schools; Use Studies
IDENTIFIERS *Access to Computers; Apple IIe; Apple Macintosh; Detroit Public Schools MI; IBM Personal Computer; Preservice Teachers; Student Surveys; Wayne State University MI

ABSTRACT

Preservice students in the College of Education at Wayne State University (Michigan) are expected to complete at least one semester using microcomputers and courseware that they can use to support their teaching of elementary school and secondary school pupils in metropolitan Detroit. A survey form was developed to collect information about the microcomputing hardware, software, and computing laboratory facilities in the schools where student teachers and other preservice teachers were working with students. The survey form was distributed to students doing field experiences in 1992. There were more than 400 responses, representing about a 40 percent response rate. Sixty-eight percent of the elementary schools had at least one computer in the individual classroom, but only 20 percent of the senior high schools were observed to have a computer in the classroom. More than 90 percent of junior high/middle schools and senior high schools had a microcomputer laboratory in the school. This study supports the assertion that preservice students need to build their skills using the three major systems--Apple IIe/GS, Macintosh, and IBM (MS-DOS). It will be important for secondary school teachers to find ways of introducing applications from their disciplines that can be cultivated using resources from the high school computer laboratory. Four tables present study findings, and the survey instrument is included. (SLD)

ESTIMATING COMPUTING HARDWARE AND SOFTWARE AVAILABLE TO PRESERVICE STUDENTS IN METROPOLITAN DETROIT SCHOOLS

Gary R. Smith, Professor
College of Education
Wayne State University
Detroit, Michigan

March 1993

Estimating Computing Hardware and Software Available to Preservice Students in Metropolitan Detroit Schools

Problem: The preservice students in the College of Education, Wayne State University are expected to complete at least one semester using microcomputers and courseware which they can use to support their teaching of elementary and secondary school pupils in Metropolitan Detroit. A similar requirement is included in the preservice programs of many other teacher education institutions which place student teachers in the Detroit Public Schools and in nearby suburban schools.

Unfortunately, there is not a central agency which collects, updates, and disseminates information as to the computing and other technological resources which are currently available in each school or district. Furthermore, the number and types of microcomputers, courseware, camcorders, CD-ROM's, drives and players in a school or district can change rapidly, which makes it very difficult for preservice students or teacher education programs to plan and use these resources in their field experiences.

Since the WSU Teacher Education program required students to have frequent, extended field experiences in Detroit Public Schools and a suburban school district, it appeared that the students could be helpful in collecting information about the computing resources in the schools where they were placed.

Procedure: A survey form was developed to collect information regarding microcomputing hardware, software, and computing lab facilities in the schools where student teachers and other preservice students were working with pupils. A copy of the survey form is appended to this paper. Items 1 through 4 on the survey form were intended to collect descriptive information about each respondent and the school where the student was assigned. Item 5 was intended to collect information regarding the availability and uses of microcomputers in the teachers' home classrooms. Item 6 requested information about the existence of a microcomputer lab in the school.

A cover letter was written and the survey form was distributed at the end of the Winter 1992 and Fall 1992 terms to students who participated in field experiences during those terms.

Limitations: This survey form is relatively crude and does not provide in-depth appraisal of the various uses of computing resources in these schools. Another limitation of the accuracy of this report is due to the fact that preservice teachers may not have had an opportunity to visit many classrooms or see many applications in the school where they were assigned. Furthermore, some schools are acquiring or replacing microcomputers and courseware at a rapid pace, and preservice students would not observe this transition. Finally, the survey is limited to computing resources and does not collect information about a school's uses of television, telecommunication and other applications of educational technology.

However, in the absence of information from school districts, this report provides specific indications as to computing resources in more than 150 Metropolitan Detroit Schools where Wayne State University and other colleges of education place student teachers and other preservice students.

Results: These were more than 400 responses from preservice students who were in field placements in Metropolitan Detroit Schools during 1992, which represented about 40% rate of response. The responding group included preservice students placed in 129 non-Detroit schools and replies from students in 23 Detroit Public Schools. This represented 123 elementary school sites, 29 middle school/junior high school sites, and 33 senior high school sites in Metropolitan Detroit.

Table 1 summarizes the frequencies of responses to each item in the survey by respondents placed in elementary schools, and Tables 2 and 3 provide similar summaries of responses by students in middle school/junior high and in senior high schools, respectively. In Table 1, the responses to item 5A indicate that 68% of the elementary school sites included at least one microcomputer and software in the individual teacher's classroom. In contrast, only 20% of the senior high school sites were observed to have a microcomputer in the teacher's classroom.

Of those elementary school classes with a microcomputer in the classroom, about 66% were Apple-IIe/GS microcomputers, 16% were Macintoshes, 10% were IBM units. More than 70% of the respondents indicated that 6 or more pupils per week used the microcomputer in the classroom. The primary software applications used in the elementary classroom were computer games, word processing, Appleworks, and MECC programs.

In the senior and middle school/junior high sites, more than 90% of the respondents reported that a microcomputer lab was in the school; and 63% of the respondents in an elementary school site also reported that a microcomputer lab was in the school. In the senior high school labs, Apple-IIe/GS micros (28%), Macintosh micros (19%), and IBM micros (31%) were

reported. Software used in secondary school labs emphasized word processing, Appleworks, games. In the elementary school labs, students reported that computer games, Appleworks, word processing, and selected MECC programs were used extensively.

Implications: This brief study supports the assertion that at this time, preservice students need to build their skills using three major platforms, e.g., Apple-IIe/GS, Macintosh, and IBM (MS.DOS). This instruction should be helpful to them during their preservice field experiences and to those graduates who are eventually employed in the elementary and secondary schools of Metropolitan Detroit. Using instructional courseware with **each** of the three major microcomputers (Apple-IIe/GS, Macintosh, IBM) is a major emphasis of the College's course, TED 602 Computer Applications in Teaching.

Since most computing resources in secondary schools of Metropolitan Detroit appear to be concentrated in computer labs, it will be important for high school teachers in science, mathematics, social studies, language arts, and other curriculum areas to find ways of introducing applications from their disciplines which can be cultivated using the resources of the high school computer lab.

Although some very creative and innovative applications can emerge using word processing, Appleworks or Works, and computer games, teacher educators have only the casual observations of the Wayne State students and some conference reports to indicate the specific ways in which these computing resources are being used with pupils in K-12 schools of Metropolitan Detroit.

Finally, we do not have broad-based information to indicate the extent to which CD-ROM's and videodiscs are being utilized in these schools; or the extent to which telecommunication, closed circuit television, camcorders, and satellite communication are being incorporated into delivery of instruction in schools of Metropolitan Detroit or the preparation of teachers to exploit these opportunities to enhance pupils' learning and achievement.

Table 1

SUMMARY OF MICROCOMPUTERS IN SCHOOLS (W92,F92)

ITEM	ELEM SCHOOL(W92)	ELEM SCHOOL(F92)	TOTAL
(1)	(2)	(3)	(4)
5A. IS THERE A MICROCOMPUTER			
IN THE CLASSROOM?			
YES	83	105	188
PERCENT	62	74	68
NO	51	37	88
PERCENT	38	26	32
5B.IF"YES", MICROCOMPUTER IS			
APPLE IIE	37	51	88 (47%)
APPLE II/GS	13	23	36 (19%)
MACINTOSH	12	19	31 (16%)
IBM	11	7	18 (10%)
OTHER	4	3	7 (4%
5C. IF"YES", HOW MANY PUPILS			
USE MICROCOMPUTER DURING			
WEEK			
LESS THAN 5	20	30	50
6 TO 25	52	65	117
MORE THAN 25	9	7	16
5D. IF"YES", WHAT SOFTWARE DO			
PUPILS USE DURING WEEK?			
APPLEWORKS	30	26	56
MEC[illegible]OGRAMS	16	18	34
WORD PROCESSING	31	23	54
GAMES	49	62	111
OTHER	13	19	32

Table 1 (continued)

ITEM	ELEM SCHOOL(W92)	ELEM SCHOOL(F92)	TOTAL
(1)	(2)	(3)	(4)
6A. IS THERE A MICROCOMPUTER			
LAB IN THE SCHOOL?			
YES	82	83	165
PERCENT	67	61	64
NO	41	53	94
PERCENT	33	39	36
6B. IF"YES",AVERAGE NO OF MICRO-			
COMPUTERS IN THE LAB?			
APPLE IIE	17	17	17
APPLE II/GS	21	12	16
MACINTOSH	9	15	12
IBM	2	1	1
OTHER	14	19	16
6C. IF"YES",WHAT SOFTWARE DO			
PUPILS USE DURING WEEK?			
APPLEWORKS	31	15	24
MECC PROGRAMS	19	17	18
WORDPROCESSING	25	16	20
GAMES	40	31	35
OTHER	8	6	7
NO OF PERSONS RESPONDED	134	147	281
NO OF SCHOOLS REPRESENTED	68	64	132
NO OF SCHOOLS WITH			
MICROCOMPUTER LAB	28	40	68
PERCENT	41	63	52
NO OF SCHOOLS WITHOUT			
MICROCOMPUTER LAB	40	24	64
PERCENT	59	37	48

Table 2

SUMMARY OF MICROCOMPUTERS IN SCHOOLS (W92,F92)

ITEM	JR.HIGH SCHOOL(W92)	JR.HIGH SCHOOL(F92)	TOTAL
(1)	(2)	(3)	(4)
5A. IS THERE A MICROCOMPUTER			
IN THE CLASSROOM?			
YES	8	6	14
PERCENT	73	29	44
NO	3	15	18
PERCENT	27	71	56
5B.IF"YES", MICROCOMPUTER IS			
APPLE IIE	4	3	7 (50%)
APPLE II/GS	1	0	1 (7%)
MACINTOSH	2	3	5 (36%)
IBM	3	0	3 (21%)
OTHER	1	0	1 (7%)
5C. IF"YES", HOW MANY PUPILS			
USE MICROCOMPUTER DURING			
WEEK			
LESS THAN 5	2	4	6
6 TO 25	3	2	5
MORE THAN 25	2	0	2
5D. IF"YES", WHAT SOFTWARE DO			
PUPILS USE DURING WEEK?			
APPLEWORKS	1	1	2
MECC PROGRAMS	0	0	0
WORD PROCESSING	3	3	6
GAMES	4	1	5
OTHER	0	1	1

Table 2 (continued)

ITEM (1)	JR.HIGH SCHOOL(W92) (2)	JR.HIGH SCHOOL(F92) (3)	TOTAL (4)
6A. IS THERE A MICROCOMPUTER			
LAB IN THE SCHOOL?			
YES	11	15	26
PERCENT	100	71	86
NO	0	6	6
PERCENT	0	29	14
6B. IF"YES",AVERAGE NO OF MICRO-			
COMPUTERS IN THE LAB?			
APPLE IIE	12	22	17
APPLE II/GS	0	3	1
MACINTOSH	0	14	7
IBM	0	20	10
OTHER	0	35	17
6C. IF"YES",WHAT SOFTWARE DO			
PUPILS USE DURING WEEK?			
APPLEWORKS	4	10	7
MECC PROGRAMS	0	5	2
WORDPROCESSING	5	18	12
GAMES	3	15	9
OTHER	1	7	4
NO OF PERSONS RESPONDED	11	48	59
NO OF SCHOOLS REPRESENTED	4	25	29
NO OF SCHOOLS WITH			
MICROCOMPUTER LAB	2	20	22
PERCENT	50	80	76
NO OF SCHOOLS WITHOUT			
MICROCOMPUTER LAB	2	5	7
PERCENT	50	20	24

Table 3

SUMMARY OF MICROCOMPUTERS IN SCHOOLS (W92,F92)

ITEM (1)	HIGH SCHOOL(W92) (2)	HIGH SCHOOL(F92) (3)	TOTAL (4)
5A. IS THERE A MICROCOMPUTER IN THE CLASSROOM?			
YES	8	4	12
PERCENT	25	15	20
NO	24	23	47
PERCENT	75	85	80
5B.IF"YES", MICROCOMPUTER IS			
APPLE IIE	2	2	4 (33%)
APPLE II/GS	3	1	4 (33%)
MACINTOSH	4	3	7 (58%)
IBM	2	0	2 (17%)
OTHER	0	1	1 (8%)
5C. IF"YES", HOW MANY PUPILS USE MICROCOMPUTER DURING WEEK			
LESS THAN 5	4	4	8
6 TO 25	1	0	1
MORE THAN 25	0	1	1
5D. IF"YES", WHAT SOFTWARE DO PUPILS USE DURING WEEK?			
APPLEWORKS	1	1	2
MECC PROGRAMS	0	0	0
WORD PROCESSING	2	3	5
GAMES	1	0	1
OTHER	2	2	4

	Table 3 (continued)		
ITEM	HIGH SCHOOL(W92)	HIGH SCHOOL(F92)	TOTAL
(1)	(2)	(3)	(4)
6A. IS THERE A MICROCOMPUTER			
LAB IN THE SCHOOL?			
YES	31	22	53
PERCENT	96	88	92
NO	1	3	4
PERCENT	4	12	8
6B. IF"YES",AVERAGE NO OF MICRO-			
COMPUTERS IN THE LAB?			
APPLE IIE	19	26	22
APPLE II/GS	19	2	11
MACINTOSH	31	13	22
IBM	38	35	36
OTHER	25	30	27
6C. IF"YES",WHAT SOFTWARE DO			
PUPILS USE DURING WEEK?			
APPLEWORKS	7	2	4
MECC PROGRAMS	1	1	1
WORDPROCESSING	16	11	13
GAMES	6	4	5
OTHER	13	4	8
NO OF PERSONS RESPONDED	32	28	60
NO OF SCHOOLS REPRESENTED	20	13	33
NO OF SCHOOLS WITH			
MICROCOMPUTER LAB	8	12	20
PERCENT	40	92	61
NO OF SCHOOLS WITHOUT			
MICROCOMPUTER LAB	12	1	13
PERCENT	60	8	39

Table 4

MICROCOMPUTERS IN SCHOOLS (1992)

DISTRICT/SCHOOL	HIGH SCHOOL		MIDDLE SCHOOL		ELEM SCHOOL	
	CLASS MICRO	SCHOOL LAB	CLASS MICRO	SCHOOL LAB	CLASS MICRO	SCHOOL LAB
ALLEN PARK						
ALLEN PARK H.S	N	Y				
ANCHOR BAY						
ANCHOR BAY ELEM					Y	N
BERKLEY						
PATTENGILL ELEM					Y	Y
BIRMINGHAM						
PIERCE ELEM					N	Y
QUARTON ELEM					N	Y
BLOOMFIELD HILLS						
EASTOVER ELEM					Y	Y
ANDOVER ELEM					N	Y
CLARKSTON COMMUNITY SCHOOL						
CLARKSTON HIGH SCHOOL	N	Y				
CHIPPEWA VALLEY						
CLINTON VALLEY ELEM					Y	Y
ERIE ELEM					Y	Y
FOX ELEM					Y	Y
HURON ELEM					Y	Y
MOHAWK ELEM					Y	Y
OTTOWA ELEM					Y	Y
CHIPPEWA VALLEY H.S	Y	Y				
DEARBORN						
HAIGH ELEM					N	Y
DUNKELL M.S			Y	Y		
DEARBORN FORDSON H.S	Y	Y				
LONG ELEM					Y	Y
WILLIAM FORD ELEM					Y	N
DETROIT						
AMELIA EARHART M.S			N	Y		
BATES ACADEMY					Y	Y
CASS TECH	N	Y				
CARVER ELEM					N	N
DEITER TRAINABLE CENTER			N	Y		
DETROIT OPEN					Y	Y
EDMONSON ELEM					N	Y
FINNEY H.S	N	Y				

Table 4 (continued)

DISTRICT/SCHOOL	HIGH SCHOOL		MIDDLE SCHOOL		ELEM SCHOOL	
	CLASS MICRO	SCHOOL LAB	CLASS MICRO	SCHOOL LAB	CLASS MICRO	SCHOOL LAB
GABRIEL RICHARD ELEM					Y	Y
GOLIGHTLY ELEM					Y	Y
HOLCOMB ELEM					N	Y
KETTERING H.S	N	Y				
MAYBURY ELEM					N	Y
MC MILLAN ELEM						
MUNGER MIDDLE SCHOOL			N	Y		
MURRAY WRIGHT H.S	Y	Y				
MAYBURY SCHOOL					Y	Y
NORTH WESTERN H.S	N	Y				
OAKMAN ELEM					Y	Y
RICHARD ELEM					Y	Y
SOUTH WESTERN H.S	N	Y				
SPAIN ELEM					N	N
STELLWAGON ELEM					N	Y
TAFT M.S			N	Y		
WILKING ELEM						
WILSON ELEM					Y	N
WINSHIP M.S			N	Y		
EAST DETROIT						
EAST DETROIT H.S	Y	Y				
KELLEY M.S			Y	Y		
OAKWOOD M.S			Y	Y		
PLEASANT VIEW ELEM					Y	Y
ROOSEVELT ELEM					Y	Y
WARRENDALE ELEM					Y	Y
FARMINGTON						
HIGH SCHOOL	Y	Y				
NORTH FARMINGTON	Y	Y				
FERNDALE						
FERNDALE ELEM					N	Y
FERNDALE HIGH SCHOOL	N	Y				
HARDING ELEM					Y	N
WASHINGTON ELEM					Y	N
WILSON ELEM					Y	N
FLAT ROCK						
BOBCEAN ELEM					Y	Y
FRASER						
EDISON ELEM					Y	N

Table 4 (continued)

DISTRICT/SCHOOL	HIGH SCHOOL		MIDDLE SCHOOL		ELEM SCHOOL	
	CLASS MICRO	SCHOC LAB	CLASS MICRO	SCHOC LAB	CLASS MICRO	SCHOC LAB
FRASER HIGH SCHOOL			N	Y		
RICHARDS JR. HIGH SCHOOL			Y	Y		
GARDEN CITY						
MEMORIAL ELEM					Y	Y
GROSSE POINTE						
KERBY ELEM					Y	Y
MASON ELEM					Y	Y
GROSSE POINTE SOUTH					N	Y
GROSSE POINTE NORTH					Y	Y
HARPER WOODS						
HARPERWOODS H.S	N	Y				
HAZEL PARK						
EDISON ELEM					Y	N
HENRYFORD ELEM					Y	Y
HOOVER ELEM					N	Y
LEE 'O CLARK ELEM					Y	Y
ROOSEVELT ELEM					Y	Y
UNITED OAKS ELEM					Y	Y
WEBSTER ELEM					N	Y
WEBB JR. HIGH SCHOOL			N	Y		
HIGHLAND PARK						
BARBER SCHOOL					N	Y
CORTLAND ELEM					N	N
FERRIS ELEM					N	Y
LIBERTY					N	Y
LAKE SHORE						
KENNEDY M.S			Y	Y		
LAKESHORE HIGH SCHOOL	N	Y				
MASONIC HEIGHTS ELEM					Y	Y
RODGERS ELEM					Y	Y
VISLET ELEM					Y	N
L ANSE CREUSE						
HOEBESTAEL					Y	Y
MARIE C GRAHM ELEM					Y	Y
TENNIS WOOD ELEM					Y	Y
YACKS ELEM					Y	Y
LAKE VIEW						
ARDMORE ELEM					N	Y
LAKE VIEW HIGH SCHOOL	N	Y				

Table 4 (continued)

DISTRICT/SCHOOL	HIGH SCHOOL		MIDDLE SCHOOL		ELEM SCHOOL	
	CLASS MICRO	SCHOC LAB	CLASS MICRO	SCHOC LAB	CLASS MICRO	SCHOC LAB
LINCOLN PARK						
FOOTE SCHOOL					Y	Y
KEPPER ELEM					Y	Y
LINCOLN PARK H.S	N	Y				
LIVONIA						
STEVENSON H.S	N	Y				
WEBSTER ELEM					Y	Y
MT. CLEMENS						
MACOMB ELEM					Y	Y
SEMINOILE ELEM					Y	Y
WASHINGTON ELEM					Y	Y
OAKLAND COUNTY						
OAKPARK H.S	N	Y				
OAK PARK						
EINSTEIN ELEM					Y	Y
KEY ELEM					N	Y
LESSENGER					Y	N
OAK PARK H.S	Y	Y				
PEPPER ELEM					Y	N
PHASD						
PORT HURON HIGH SCHOOL	N	Y				
PONTIAC						
BETHUNE ELEM					Y	Y
LINCOLN M.S			Y	Y		
MADISON J.H.S			Y	Y		
WALT WHITMAN ELEM					Y	Y
PORT HURON AREA						
ROOSEVELT ELEM					Y	N
ROCHESTER						
MEADOW BROOK ELEM					Y	Y
MUSSON ELEM					Y	N
UNIVERSITY HILLS ELEM					N	N
ROSEVILLE						
ALUMNI ELEM					Y	N
DORT ELEM					Y	N
EASTLAND ELEM					Y	Y
FOUNTAIN ELEM					Y	N
KAISER ELEM					Y	Y
LINCOLN ELEM					Y	N

Table 4 (continued)

DISTRICT/SCHOOL	HIGH SCHOOL		MIDDLE SCHOOL		ELEM SCHOOL	
	CLASS MICRO	SCHOOL LAB	CLASS MICRO	SCHOOL LAB	CLASS MICRO	SCHOOL LAB
ROSEVILLE H.S	Y	Y				
ROYAL OAK						
FRANKLIN ELEM					Y	N
LONG FELLOW ELEM					Y	Y
NORTHWOOD ELEM					Y	Y
OAKRIDGE ELEM					Y	Y
KIMBALL H.S	N	Y				
SOUTH FIELD						
ADLER ELEM					Y	N
BRACE LEDERLE					N	Y
SOUTH FIELD LATHRUP H.S	Y	Y				
SOUTH GATE						
DAVIDSON ELEM					N	Y
SHELTERS ELEM					N	Y
SOUTH GATE ANDERSON H.S	N	Y				
ST. CLAIR SHORES						
AVALON ELEM					Y	N
LAKEVIEW ELEM					Y	Y
SOUTH LAKE H.S	N	Y				
WOOD LAND DEV CENTER			Y	N		
TAYLOR						
BLAIR MOODY ELEM					Y	N
RACHO ELEM					Y	N
TROY						
BARNARD ELEM					Y	Y
BEMIS					N	Y
BOULIN PARK M.S			Y	Y		
HILL ELEM					Y	N
LOSTELLO ELEM					N	Y
LEONARD ELEM					Y	Y
MARTELL ELEM					Y	Y
MORSE ELEM					Y	-
TROY H.S	N	Y				
WASS ELEM					Y	Y
WATTLES ELEM					Y	Y
UTICA						
BURR ELEM					N	Y
DAVIS J.H.S			N	N		

Table 4 (continued)

DISTRICT/SCHOOL	HIGH SCHOOL		MIDDLE SCHOOL		ELEM SCHOOL	
	CLASS	SCHOOL	CLASS	SCHOOL	CLASS	SCHOOL
	MICRO	LAB	MICRO	LAB	MICRO	LAB
EARLY ELEM					Y	Y
EBELING ELEM					Y	Y
GEORGE F. ROBERTS ELEM					Y	Y
HARVEY ELEM					N	Y
SCHUCHARD					Y	Y
STERLING ELEM					N	Y
VANDYKE SCHOOLS						
MC KINLEY ELEM					Y	Y
WAYNE/WESTLAND						
WALKER					Y	N
WESTBLOOM FIELD						
ABBOTT M.S			N	Y		
WESTBLOOM FIELD H.S	N	Y				
PRIVATE SCHOOLS						
BISHOP FOLEY H.S	N	Y				
LUDINGTON M.S			N	Y		

SURVEY OF COMPUTING RESOURCES IN SCHOOLS WHERE WAYNE STATE STUDENTS ARE TEACHING

We believe that it is important for College of Education students to recognize and find ways of using the technology resources which are readily available to them in the school where they are teaching. Microcomputers are one major form of instructional technology, and they are being used in the schools to a greater frequency by pupils and classroom teachers. In order for us to actively support WSU students in using microcomputers for instruction, it is important for us to identify the current types of computing equipment and software which are being used in the school where you are teaching.

On the other side of this page, there is a brief survey form which may be used to classify and count the computing resources which are available in the school where you are now. In any given school, the microcomputers may be located in a lab or in a teacher's classroom or in both locations.

Please complete this form to indicate the computing resources in your classroom. If there is a lab of microcomputers in your school, then please respond to question #6. After you have completed the survey form, please place it in the "Computer Questionnaire Box" at the rear of the auditorium when you leave.

Let me assure you that this information will be very helpful to WSU College of Education faculty and other WSU students who will be teaching at this school in the future. Thank you for helping us to help them.

Gary R. Smith, Coordinator
TED Computer Applications Courses
College of Education
Wayne State University
April 1993

(OVER)

SURVEY OF COMPUTER APPLICATIONS IN SCHOOL ASSIGNMENT

1) Your Name .....

2) School Name .....

3) School District .....

4) Subject(s) Taught in Class..... Grade(s).....

5) Is there a microcomputer **in the classroom**? Yes..... No.....

If "Yes", is it Apple IIe..... Apple II/GS..... Macintosh.....

IBM..... Other .....

If "Yes", how many pupils use the microcomputer during a week?

Less than 5..... 6 to 25..... More than 25.....

If "Yes", what software do pupils use during the week?

Appleworks..... MECC programs (Oregon Trail,etc).....

Word processing..... Games..... Other.....

6) Is there a **microcomputer lab** in the school? Yes..... No.....

If "Yes", how many of these microcomputers are in the lab?

Apple IIe..... Apple II/GS..... Macintosh.....

IBM..... Other.....

If "Yes", what software do pupils use during the week?

Appleworks..... MECC programs (Oregon Trail,etc).....

Word processing..... Games..... Other.....

(Please place completed questionnaire in Box at rear of this auditorium)