ED 300 680   CE 051 425

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TITLE   Architectural Drafting. Courseware Evaluation for
                Vocational and Technical Education.
INSTITUTION   Ohio State Univ., Columbus. National Center for
                Research in Vocational Education.
SPONS AGENCY   Office of Vocational and Adult Education (ED),
                Washington, DC.
PUB DATE   8 Jun 87
NOTE   9p.; For the basic evaluation form, see ED 244
                058.
PUB TYPE   Tests/Evaluation Instruments (160)

EDRS PRICE   MF01/FC01 Plus Postage.
DESCRIPTORS   *Architectural Drafting; Building Trades; *Computer
                Software Reviews; *Courseware; *Engineering Drawing;
                High Schools; Instructional Material Evaluation;
                Trade and Industrial Education; *Vocabulary

ABSTRACT
        This courseware evaluation rates the Architectural
Drafting program developed by Goodheart and Wilcox. (The program--not
contained in this document--is designed to help students understand
technical words and read technical publications; a minimum of 240
vocabulary terms is included.) Part A describes the program in terms
of subject area and hardware requirements (Apple II), indicates its
suitability for use as drill and practice in grades 9-12, and gives a
time estimate (5 minutes per lesson for 48 lessons). Accompanying
material includes printed lists of terms. Availability information
includes contact address and backup policy (one year free
replacement). Part B contains the evaluation criteria in eight
categories; reviewer ratings appear as yes, somewhat, no, and not
applicable, with explanatory comments. Part C summarizes the
evaluation. Student interaction received a yes rating; subject
matter, technical presentation, program interaction, and student
evaluation were rated somewhat; and work behaviors received a no.
Reviewers noted that the program helps students build drafting
vocabulary, but it teaches only spelling, not word meanings, and it
is hard to integrate. The program is not recommended. (SK)

ARCHITECTURAL DRAFTING.

COURSEWARE EVALUATION

FOR

VOCATIONAL AND TECHNICAL EDUCATION
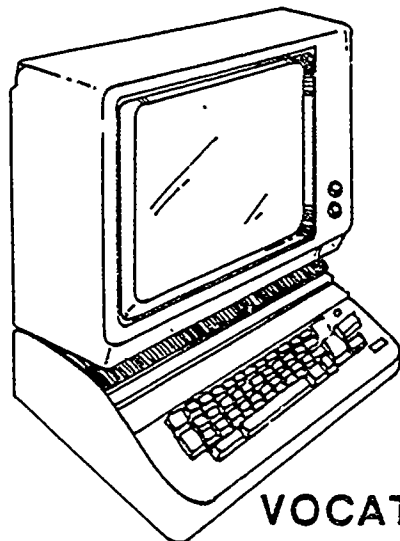
The evaluation of this courseware program was conducted by a team participating in the Courseware Evaluation Network. The Network, established in 1985, is coordinated by the National Center for Research in Vocational Education under the sponsorship of the U.S. Department of Education, Office of Vocational and Adult Education. The purpose of the Network is to identify and evaluate microcomputer courseware, and to disseminate courseware reviews for vocational and technical education.

Each Network team includes three members, at least one of which is, or recently has been, a vocational or technical teacher in the subject matter area of the courseware being evaluated. The evaluation represents a synthesis of the opinions of the team members. It is suggested that the evaluation be used as a first screening device for courseware and that the teacher also evaluate the courseware program on the basis of specific student needs.

The <u>Courseware Evaluation: Form and Guide</u> used for all of the Network evaluations was developed by the National Center and is available through its cost-recovery system.

THE NATIONAL CENTER
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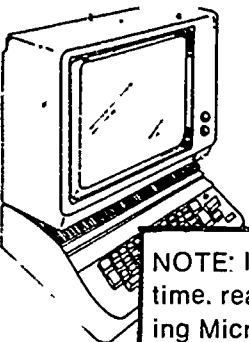
COURSEWARE EVALUATION FORM

NOTE: If you are using this form for the first time. read the instructions in the accompanying Microcomputer Courseware Evaluation Guide.

Evaluator _Gordon Turner; Douglas Beard;_

Position _Earl Gates_

Date _6/8/87_

Part A: Courseware Description

In the following sections. record descriptive information about the courseware that you are evaluating.

I. IDENTIFICATION

Program Title _Architectural Drafting._ Date _____

Series Title _____

Vocational Area(s) _Trade and Industrial_

    Subject Area(s) _Technical Drawing; Drafting_

    Topic(s) _Terminology; Drawing; Construction_

Developing Agency _Goodheart and Wilcox_

    Street or P O. Box _123 West Taft Drive_

    City _South Holland,_ State _IL._ Zip _60473_ Phone(312) _333-7200_

    Author(s) _____

    Programmer(s) _____

II. HARDWARE REQUIREMENTS

Microcomputer* _____ Apple II Series _____

                         (brand/model)

K Memory Required _48K_

             (number)

Medium of Transfer (include number of each):

— Tape cassette   X 5¼" Flexible disk   — Other_____
— ROM cartridge   — 8" Flexible disk

                                    (specify)

Programming Language _____ DOS Specifications _____

Other Specifications _____

Peripherals Needed (check all that apply):

— Color monitor   — Modem   — Clock
X One disk drive   — Mouse   — Video disk
— Two disk drives   X Printer   — Touch screen
— Plotter   — Graphics tablet   — Ten-key number
— Game paddle(s)   — Light pen   pad
— Joystick(s)   — Voice/sound   — Other_____
                      instrument   (specify)

*NOTE· Provide the above information for any additional hardware on which this program can be used._____

_____

_____

III. PROGRAM FEATURES (check all that apply):

_ Network version provided   X Program protected
_ Multiple copies required   _ Data disk needed
_ Program can be modified   _ Field-test data available

IV. INSTRUCTIONAL SETTING
Program mode (check all that apply):

___Application   ___Educational   ___Tutorial
___X Drill and practice   gaming   ___Other _____
                               ___Simulation   (specify)

Student Target Population (check all that apply):
___X Regular   ___Handicapped   ___Bilingual
___Disadvantaged   ___Limited English   ___Gifted

Grade Level (check all that apply):
___K-6   ___X 9-10   ___13-14   ___ Higher
___7-8   ___X 11-12   ___Adult   Education

Instructional Grouping (check all that apply):
___X Individual
___ Small group (up to 4)
___ Large group (4 or more)   ___ competitive interaction
                                ___ cooperative interaction

Prerequisite Student Skills (specify) ___Mechanical Drawing helpful_____

Accompanying Materials (specify types):
   Documentation _____List of terms_____

   Student support materials _____

   Teacher support materials ___List of words used in each lesson_____

Correlated materials _____

Estimated Time for Use ___Five minutes per lesson (48 lessons)_____

V. AVAILABILITY
___Free_____   ___X Sale $ _____
      (copies)
                                ___Rent $_____ _____
___Loan_____   (time)
      (time)
___Duplication (requestor supplies disk)

Copyright Restrictions (explain) ___Copyrighted._____

Back-up Policy (explain) _One year free replacement_____

Preview Policy (explain)_____

Update Policy (explain) _____

Contact ___Goodheart and Wilcox_____

   Street or P.O. Box ___123 West Taft Drive_____

   City_South Holland,____ State_IL.__ Zip _60473__ Phone (312) 333-7200

Part B: Courseware Evaluation Criteria

Indicate the applicability of each section to the courseware being evaluated by checking either "___ A" (applicable) or "___ N/A" (not applicable). If a section is not applicable. proceed to the next section. If a section is applicable. check the column that indicates how well the courseware meets each criterion. Include any comments.

	YES	SOME-WHAT	NO	N/A	COMMENTS
I. SUBJECT MATTER _X_ A ___ N/A					
1. Subject matter has educational value.		X			
2. Student objectives are stated.				X	
3. Subject matter is accurate.	X				
4. Subject matter is logically presented.		X			
5. Subject matter is free of race, ethnic, sex, and other stereotypes.	X				
6. Subject matter is on the level of the students.	X				
7. Information and skills presented are comparable to those used in the home, business, or industry.	X				
8. Subject matter motivates students to learn.		X			
9. Subject matter is reviewed and summarized.			X		
10. Program utilizes the unique capabilities of the microcomputer to present the subject matter.			X		
II. TECHNICAL PRESENTATION _X_ A ___ N/A					
1. Program is free of technical problems.	X				
2. Presentation rate is adequate to maintain interest.	X				
3. Information on the screen is easy to read.	X				
4. Program is free of spelling and grammatical errors.	X				
5. Program instructions are easy to follow.	X				
6. Color increases the instructional value of the program.				X	
7. Audio increases the instructional value of the program.				X	
8. Graphics increase the instructional value of the program.				X	

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	YES	SOME-WHAT	NO	N/A	COMMENTS
III. STUDENT INTERACTION _X_ A ___ N/A					
1. Students can use the program with minimal assistance.	X				
2. Students are actively involved in the program.	X				
3. Students control the pace of the program.	X				
4. Students can access the program "menu(s)" to change activities.	X				
5. Students are permitted to change answers.	X				
6. Methods of responding correspond to the level of the program.		X			
7. Students' errors of entry are processed so that the program continues to run.	X				
8. Students can access available "help" and "hint" options at any time.			X		
9. Students can enter or exit the program as desired.		X			
10. Students control the sequence of the program.	X				
IV. PROGRAM INTERACTION _X_ A ___ N/A					
1. Feedback is immediate.	X				
2. Cues and prompts are provided to assist students in answering correctly.	X				
3. Feedback reinforces the correct responses.		X			
4. Feedback is nonthreatening.	X				
5. Program helps students understand wrong answers.			X		
6. Program gives the correct answer after a reasonable number of tries.	X				
7. Positive reinforcement is varied.			X		
8. Program has the ability to branch/loop depending upon students' performance.		X			
9. Feedback is on the level of the student.		X			
V. STUDENT EVALUATION _X_ A ___ N/A					
1. Evaluation provides a means for measuring attainment of objectives.	X				
2. Program reports which items were missed and which were correct.	X				

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	YES	SOME-WHAT	NO	N/A	COMMENTS
V. STUDENT EVALUATION—*Continued*					
3. Individual student performance results are available to the teacher.	X				
4. Class performance results are available to the teacher			X		
5. Program provides for printed copies of evaluations.	X				
6. Test item formats are suited to the material being tested.		X			
7. Test items are clearly stated.			X		
8. Test item bank is provided.			X		
VI. DOCUMENTATION __ A _X_ N/A					
1. Documentation is easy to understand.					
2. Documentation is accurate.					
3. Student objectives are stated.					
4. Underlying concepts are outlined.					
5. Skills to be developed are specified.					
6. Procedures for integrating the program into the curriculum are provided.					
7. Follow-up activities are suggested.					
8. Documentation explains the intended use of support materials.					
9. Sufficient information is provided to operate the program.					
VII. WORK BEHAVIORS _X_ A __ N/A					
1. Program helps students identify their vocational skills.				X	
2. Program promotes pride in work.		X			
3. Program promotes productivity.		X			
4. Program encourages good work habits.		X			
5. Problem solving is encouraged.		X			
6. Program promotes good human relations skills.		X			
7. Program provides an opportunity for work satisfaction and self-fulfillment.		X			
8. Program encourages creativity.				X	

Part B: Courseware Evaluation Criteria

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Part B: Courseware Evaluation Criteria

	YES	SOME-WHAT	NO	N/A	COMMENTS
VIII. APPLICATION PROGRAMS __ A _x_ N/A (to be completed for application programs **only**)					
1. Program is adaptable to the needs of the student.					
2. Commands are easily remembered.					
3. Information is easily manipulated.					
4. Corrections are easy to make.					
5. Program includes all necessary variables.					
6. Program performs reliably.					
7. Program efficiently achieves its intended purpose.					
8. Trial data are supplied for learning to run the program.					
9. Program provides for use of printer when hard copy of information is advantageous.					
10. Program moves from operation to operation efficiently.					
11. Program is compatible with other application programs.					
12. Program has a supplementary tutorial program available.					

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1. SUMMARY COMMENTS

Identify strengths of the courseware:

Aids students to build drafting vocabulary.

Identify weaknesses of the courseware·

1. Does not make students learn word meanings, only spelling.
2. Poor use of medium, hard to integrate.

Describe uses of the courseware in an instructional setting:

Spelling

2. SUMMARY OF SECTION

Rate the quality of the courseware for each applicable section of this form by checking the appropriate column; if not applicable, check N/A.

	YES	SOME-WHAT	NO	N/A
I. SUBJECT MATTER: Content has educational value.		X		
II. TECHNICAL PRESENTATION: Program is free of malfunctions.		X		
III. STUDENT INTERACTION: Students are actively involved with the program.	X			
IV. PROGRAM INTERACTION: Feedback is effectively employed.		X		
V. STUDENT EVALUATION: Evaluation adequately measures student progress.		X		
VI. DOCUMENTATION: Documentation is sufficient to run the program.				X
VII. WORK BEHAVIORS: Program assists students in developing positive work attitudes and skills.			X	
VIII. APPLICATION PROGRAMS: Program performs the task for which it is intended.				X

3. FINAL RECOMMENDATION

Check your recommendation for the courseware and explain your reasons below.

___ Highly recommend   ___ Recommend with reservations
___ Recommend   _X_ Do not recommend

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