

DOCUMENT RESUME

ED 232 543

IR 020 031

TITLE Titration. MicroSIFT Courseware Evaluation.
 INSTITUTION Northwest Regional Educational Lab., Portland, Oreg.
 PUB DATE Apr 82
 NOTE 2p.; In its: MicroSIFT Courseware Evaluations (1-87), 1982. See ED 226 765.
 PUB TYPE Reports - Evaluative/Feasibility (142)

EDRS PRICE MF01/PC01 Plus Postage.
 DESCRIPTORS *Chemistry; *Computer Assisted Instruction; *Computer Programs; Drills (Practice); Microcomputers; Postsecondary Education; *Science Instruction; Secondary Education; Simulation

IDENTIFIERS Apple II; Courseware Evaluation; Microcomputer Software and Info for Teachers; PF Project; Software Evaluation; *Software Reviews; Titration Analysis

ABSTRACT

THE FOLLOWING IS THE FULL TEXT OF THIS DOCUMENT (Except for the Evaluation Summary Table): VERSION: 1980. PRODUCER: Mentor Software, Inc., Box 8082, St. Paul, Minn. 55113. EVALUATION COMPLETED: April 1982, by staff and constituents of the Texas Region X Educational Service Center. COST: \$19.95. ABILITY LEVEL: Grades 10-14. SUBJECT: Chemistry: titration. MEDIUM OF TRANSFER: 5-1/4" flexible disk. REQUIRED HARDWARE: Apple II, single disk drive. REQUIRED SOFTWARE: DOS 3.3. INSTRUCTIONAL PURPOSE: Standard instruction, enrichment. INSTRUCTIONAL TECHNIQUES: Drill and practice. DOCUMENTATION AVAILABLE: Supplementary materials include suggested grade/ability levels, instructional objectives, program operating instructions, student instructions and student worksheets. INSTRUCTIONAL OBJECTIVES: Instructional objectives are stated. INSTRUCTIONAL PREREQUISITES (Inferred): Users should have had science instruction at the 9-10 grade level. CONTENT AND STRUCTURE: The program simulates an acidic or basic titration of a solution of unknown strength. The necessary equipment is displayed graphically. After the titration has been completed the user is tutored in performing the necessary calculations. The results are compared to the actual normality of the unknown solution. ESTIMATED STUDENT TIME REQUIRED: Twenty minutes. POTENTIAL USES: This package can be used as a pre-lab for students to perform before doing an actual titration experiment in the laboratory. It could also be used by an instructor for purposes of demonstration. MAJOR STRENGTHS: The computer responses are "friendly," and the activities involve students in appropriate ways. MAJOR WEAKNESSES: The terms "acid solution" and "basic solution" need to be added to the definition sheet. EVALUATION SUMMARY: Evaluators indicate they would use or recommend use of this package only if certain changes were made. (See Major Weaknesses.) (Author)

 * Reproductions supplied by EDRS are the best that can be made *
 * from the original document. *

ED232643

Titration

VERSION: 1980

PRODUCER: Mentor Software, Inc.
Box 8082
St. Paul, Minn. 55113

EVALUATION COMPLETED: April 1982, by staff and constituents of the Texas Region X Educational Service Center.

COST: \$19.95

ABILITY LEVEL: Grades 10-14
SUBJECT: Chemistry: titration
MEDIUM OF TRANSFER: 5-1/4" flexible disk
REQUIRED HARDWARE: Apple II, single disk drive
REQUIRED SOFTWARE: DOS 3.3
INSTRUCTIONAL PURPOSE: Standard instruction, enrichment
INSTRUCTIONAL TECHNIQUES: Drill and practice

DOCUMENTATION AVAILABLE: Supplementary materials include suggested grade/ability levels, instructional objectives, program operating instructions, student instructions and student worksheets.

INSTRUCTIONAL OBJECTIVES: Instructional objectives are stated.

INSTRUCTIONAL PREREQUISITES (Inferred): Users should have had science instruction at the 9-10 grade level.

CONTENT AND STRUCTURE: The program simulates an acidic or basic titration of a solution of unknown strength. The necessary equipment is displayed graphically. After the titration has been completed the user is tutored in performing the necessary calculations. The results are compared to the actual normality of the unknown solution.

ESTIMATED STUDENT TIME REQUIRED: Twenty minutes.

POTENTIAL USES: This package can be used as a pre-lab for students to perform before doing an actual titration experiment in the laboratory. It could also be used by an instructor for purposes of demonstration.

MAJOR STRENGTHS: The computer responses are "friendly," and the activities involve students in appropriate ways.

MAJOR WEAKNESSES: The terms "acid solution" and "basic solution" need to be added to the definition sheet.

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
This document has been reproduced as received from the person or organization originating it.
Minor changes have been made to improve reproduction quality.
Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

EVALUATION SUMMARY

SA A D SD NA

SA	A	D	SD	NA	
	•				Content is accurate.
	•				Content has educational value.
•					Content is free of stereotypes.
	•				Purpose of package is well defined.
	•				Package achieves defined purpose.
	•				Content presentation is clear and logical.
•					Difficulty level is appropriate to audience.
•					Graphics/sound/color are used appropriately.
	•				Use of package is motivational.
	•				Student creativity is effectively stimulated.
•					Feedback is effectively employed.

SA A D SD NA

SA	A	D	SD	NA	
	•				Learner controls rate and sequence.
	•				Instruction integrates with prior learning.
	•				Learning can be generalized.
	•				User support materials are comprehensive.
•					User support materials are effective.
	•				Information displays are effective.
	•				Users can operate easily and independently.
	•				Teachers can employ package easily.
	•				Computer capabilities are used appropriately.
		•			Program is reliable in normal use.

SA - Strongly Agree A - Agree D - Disagree SD - Strongly Disagree NA - Not Applicable

Evaluators indicate they would use or recommend use of this package only if certain changes were made. (See Major Weaknesses.)

Northwest Regional Educational Laboratory
300 S.W. Sixth Avenue • Portland, Oregon 97204
(503) 248-6800

This evaluation is based on the evaluations of three or more reviewers who are representative of potential users of the courseware package. Permission to reproduce this document is hereby granted.



TR 020031