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AUTHOR Weaver, Dave
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ABSTRACT

This document contains critical reviews of 10 microcomputer software packages and two interactive videodisc products designed for use in teaching about Acquired Immune Deficiency Syndrome (AIDS) and sex at the secondary school level and above. Each package was reviewed by one or two secondary school health teachers and by a staff member from the Northwest Regional Educational Laboratory's Technology Program using the MicroSIFT Courseware Evaluation form. The 12 packages reviewed are: (1) AIDS Information Delivery System; (2) AIDS--An Educational Program; (3) AIDS. informational Defense System; (4) AIDS: The Investigation; (5) AIDS: The New Epidemic; (6) Body Awareness Resource Network: AIDS; (7) Body Awareness Resource Network: Human Sexuality; (8) Practicing Sexual Decision Making; (9) Romance: Game of Choice About Sex; (10) STD: Sexually Transmitted Disease Information; (11) Understanding AIDS; and (12) Venereal Disease. A section on findings calls the overall results somewhat disappointing, noting that most packages were tutorials followed by drill questions perceived as dull and uninspiring to students. The teachers' views on AIDS as a serious topic is given as one reason for the criticism received by packages using a game format. It is reported that teachers were generally satisfied with the content, finding a broad range of depth and maturity levels in the materials available. For each product, information is provided on the producer, hardware needed, price, audience, type of program, copyright date, a brief description, possible uses, strengths, weaknesses, and relevant comments. Producer contact information is given; the courseware evaluation form is appended. (NB)

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TECHNOLOGY PROGRAM

ED305524

SOFTWARE FOR TEACHING ABOUT AIDS & SEX

A CRITICAL REVIEW OF PRODUCTS

A MicroSIFT Report

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by

Dave Weaver

Northwest Regional Educational Laboratory
101 S.W. Main, Suite 500
Portland, Oregon 97204

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The authors of the MicroSIF 1 Quarterly Report would like to take this opportunity to acknowledge and to thank the software reviewers for their efforts in this project. The team consisted of the following individuals:

Lee Cook
Stephanie Ritzert

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INTRODUCTION

Nearly every day we are reminded of the AIDS epidemic's harsh reality. Newspapers, television, the medical profession, government, and special interest groups all contribute to raising our awareness of this dreaded disease. If we are to be successful in curbing the spread of AIDS, everyone must possess a basic understanding of the nature of the disease, its symptoms, treatment, how it is transmitted, and most importantly, how to avoid contracting the AIDS virus.

As our schools rise to meet the challenge of educating our young people about AIDS, the demand for quality instructional materials increases. In response, the MicroSIFT Project elected to focus its evaluation efforts on software products designed for use in sex education with particular emphasis on AIDS education.

Ten microcomputer software packages and two interactive videodisc products were identified using the RICE database. Each package was reviewed by at least one, and in most cases two, classroom teachers, plus a staff member from the Northwest Regional Educational Laboratory's (NWREL) Technology Program using the MicroSIFT Courseware Evaluation form. The teachers were all secondary health teachers experienced in the review process. The results of the reviews were synthesized to make this report.

LIST OF PRODUCTS EVALUATED

Title	Producer	Price	Hardware
AIDS Information Delivery System	Learning Works	\$49.95	A,C,I
AIDS--An Educational Program	Health EduTech	\$995.00	V
AIDS: Informational Defense System	Orange Juice	\$45.00	A
AIDS: The Investigation	Marshware	\$57.70	A
AIDS: The New Epidemic	Marshware	\$57.70	A
Body Awareness Resource Network: AIDS	Learning MultiSystems	\$120.00	A
Body Awareness Resource Network: Human Sexuality	Learning MultiSystems	\$120.00	A
Practicing Sexual Decision Making	SAE	?\$39.95	A,I,T
Romance: Game of Choice About Sex	SAE	\$49.95	A,I,T
STD: Sexually Transmitted Disease Information	Health EduTech	\$1895.00	V,I
Understanding AIDS	SAE	\$49.95	A,I,T
Venereal Disease	Queue	\$39.95	A,I,M

KEY: A - Apple II,
M - Macintosh,

C - Commodore 64,
T - Tandy 1000,

I - IBM PC,
V - Videodisc

OUR FINDINGS

The MicroSIFT Courseware Evaluation form¹ requires the reviewer to make a judgment based on 21 different evaluation criteria (see Appendix). The criteria are organized into three areas: content characteristics, instructional characteristics, and technical characteristics. After rating the package on each criterion, the reviewer rates the package in each of the three areas on a scale from 1 (low) to 5 (high) and then makes a final recommendation. The Evaluation Summary Table below gives a summary of these results.

EVALUATION SUMMARY TABLE

Title	Cont.	Inst.	Tech.	Overall
AIDS Information Delivery System	4	3	4	+
AIDS--An Educational Program	3	3	4	?
AIDS: Informational Defense System	4	3	2	?
AIDS: The Investigation	3	3	3	?
AIDS: The New Epidemic	4	3	4	?
Body Awareness Resource Network: AIDS	3	2	3	?
Body Awareness Resource Network: Human Sexuality	4	3	3	?
Practicing Sexual Decision Making	2	2	1	-
Romance: Game of Choice About Sex	2	2	1	-
STD: Sexually Transmitted Disease Information	3	4	3	+
Understanding AIDS Venereal Disease	4	3	2	?
	3	2	2	-

KEY:

- ++ Highly Recommended
- + Recommended
- ? Recommended with reservations (see strengths & weaknesses for each product)
- Not recommended

¹*The Evaluator's Guide for Microcomputer Based Instructional Packages.* Eugene, OR: ICCE Publications, 1986.

The overall results were somewhat disappointing. As indicated by the absence of 5 ratings and high recommendations, the reviewers were not completely comfortable with any of the packages. On the other hand, few packages were completely rejected. As expected, most all of the packages were tutorials followed by drill questions. If these were the only aspects of a package, the reviewers tended to rate the package "fair" to "poor" depending upon the type and quality of corrective feedback. The tutorials were generally perceived as dull and uninspiring to students.

On the other hand, packages which employed a game format were also highly criticized. The teachers felt that AIDS is a serious topic and making a game out of the materials is inappropriate. Consequently, the simulations which used a game format fell victim to the same criticism.

On the brighter side, the teachers were generally satisfied with the content, finding a broad range of depth and maturity level in the materials available. A few of the packages included a personal inventory and resource component which were also well-received. The reviewers found this to be a good way to reach students who were too shy or embarrassed to discuss the topic with others.

In conclusion, the packages tended to be a collection that varied in their usefulness, containing portions the reviewers really liked and other portions they highly criticized. If you are a teacher who uses the computer primarily for tutorials and drills, then you will probably be comfortable with several of these packages. If your goal in the use of the computer is more toward open-ended exploratory activities, then you will have a more difficult time finding acceptable products among those reviewed in this report. Thus, it is important that the reader carefully consider both the strengths and weaknesses of all of the packages and we strongly recommend previewing any package prior to purchase.

PRODUCT DESCRIPTIONS

AIDS Information Delivery System

Producer:	The Computer Learning Works, Inc.
Hardware:	Apple II + e c, Commodore 64, IEM PC
Price:	\$49.95
Audience:	Grades 9-Adult
Type:	Tutorial, inventory, drill
Copyright:	1988

Description: The package consists of one 5.25" disk and an eight-page user's guide. The disk contains three programs. "What do you know about AIDS?" is a ten-question multiple-choice test designed to help the user assess his/her current understanding of AIDS; a printout of the results can be generated. "What is my risk of getting AIDS?" allows the user to receive an assessment of his/her own risk of contracting AIDS based on responses to seven personal questions; a printout of the results is available upon completion. "Training" offers a series of tutorials covering what AIDS is and is not, how people get AIDS, how people can avoid AIDS, how they can find out if they have AIDS, and what can be done to help people with AIDS. Each lesson first presents a series of text screens of information followed by brief multiple-choice questions. The student must answer all of the questions correctly to complete the lesson. If any question is answered incorrectly, the program takes the student to the beginning of the lesson. One of the lessons, "How can I find out if I have AIDS?" presents information about the risk groups and asks the student questions regarding his/her relationship with the risk group. After the series of eight questions the program assesses the student's risk and recommends an appropriate course of action. A dictionary is available in the tutorial which contains the pronunciation and definition of 34 AIDS-related words. Help screens are available at all times which contain program operating instructions.

Possible Uses: The package is designed to be used by individual students because of the personalization of the program. Each program and lesson requires from 10 to 30 minutes to complete.

Strengths: The personal risk inventory is an excellent feature. Not only do students come to understand how AIDS is transmitted but they can relate that information to their own lives.

Comments: The package is designed to be used differently than most tutorials. The students are instructed to take notes during the presentation and answer the questions from their notes. If students do take notes, use of the package can be a valuable learning experience. On the other hand, if students do not do as instructed, use of the program can become very frustrating. If any of the questions are missed, the students must do the entire lesson again.

Weaknesses: The user interface is inconsistent between programs. Two of the three programs utilize the arrow keys for making selections while the other uses the letters (A, B, C, etc.). Help is sometimes available using F1

and other times a menu selection is accessed using the arrows. Although the user interface is inconsistent, all necessary instructions for use appear on the screen at all times.

AIDS--An Educational Program

Producer: Health EduTech
Hardware: A Videodisc player for level II operation.
Price: \$995.00
Audience: Grades 11-Adult
Type: Tutorial, drill
Copyright: 1987

Description: The package contains one single-sided videodisc, a 10-page administrative guide, a three-page student guide, and a one-page reproducible posttest. The disc begins with a brief introduction to the impact of the AIDS virus on our society followed by an optional section giving background information about how infections are spread in general. The AIDS portion of the video begins by asking the student to choose a sex and sexual preference. The student may then choose to view the segments dealing with the definition of AIDS, its symptoms, diagnosis, treatment, transmission, complications, lifestyle changes, conclusion, or to see the answers to the 25 most commonly asked questions about AIDS. The video sequence shown is tailored toward the sex and sexual preference initially entered by the user. Each section is followed by an optional series of multiple-choice questions. If the student makes an incorrect response, the program replays the video sequence containing the information. All menu responses and menu selections are made using the remote control of the videodisc player.

Possible Uses: The videodisc is designed to be used by individual students because of the personalization of the program. However, the video could be used as a teacher-controlled demonstration to small groups of students using hypothetical individuals. Each video sequence is from five to 10 minutes in length and the question for each requires less than five minutes. Approximately 40 minutes is required for the entire disc.

Strengths: The video presentation is more likely to hold the student's interest than the text-oriented tutorials found in the computer software. Initially, the student enters his/her sex and sexual preference. The video sequences which follow are then tailored to the student's sex and sexual preference.

Weaknesses: The program does not do a good job representing minorities and ethnic groups. All actors are white. A great deal of emphasis is placed on gay and bisexual men with little reference to the heterosexual population. The pause button is disabled making it impossible to stop the video to take notes, look up words, or participate in a discussion.

Comments: The nature of the material presented makes this package appropriate for mature high school students or adults.

AIDS: Informational Defense System

Producer: Orange Juice Software Systems
Hardware: Apple II family
Price: \$45.00, Backup disks are available for an additional \$10.00
Audience: Grades 7-12
Type: Tutorial, drill, game
Copyright: 1988

Description: The package consists of one 5.25" disk and a 20-page user's manual. The disk contains three interactive tutorials and a review. The tutorials are titled "What is AIDS and how does it affect the human body?," "Who gets AIDS and how do they contract the virus?," and "Facts about the transmission of the AIDS virus and avoiding the contraction of the illness." The tutorials provide a very comprehensive coverage of each topic by mixing multiple-choice questions with text and graphics presentations. The first tutorial, "What is AIDS?," defines AIDS, lists how it can and cannot be transmitted, lists the symptoms, and gives a detailed explanation of its effects on the immune system. In the second tutorial, "Who Gets AIDS?," students can explore six infected groups and learn vital statistics about each. The third tutorial is a series of true/false statements about how the virus can be spread. The student receives further explanations appropriate for either true or false responses. The review consists of 10 true/false questions randomly chosen from the item bank presented in a game format. The sound may be turned on or off.

Possible Uses: This program is appropriate for use with individual students and would require 30 to 60 minutes to complete each of the four sections.

Strengths: The program does a very thorough job of covering the material. The student receives feedback for both correct and incorrect responses.

Weaknesses: The text presentation and question format is not motivating to most students. The text uses all uppercase letters and the screens appear cluttered.

AIDS: The Investigation

Producer: Marshware
Hardware: Apple II + e c GS
Price: \$57.70
Audience: Grades 9-12
Type: Simulation, game
Copyright: 1987

Description: The package contains one 5.25" disk, a 17-page user's guide, and a data recording sheet/reproducible master. The program places the student in the role of a health investigator who must determine the chain of infection as the AIDS virus spreads through a small community. The program uses a simplified model. Initial assumptions are that the infection originates from a single individual, the virus was not transferred if a condom was used, and the virus was not transmitted through blood transfusions or the

blood clotting factor. The student is initially given the name of one infected individual. As a health investigator, he/she may ask any person in the community to produce a list of sexual contacts including whether or not condoms were used; give personal data such as the names of family members and friends, place of employment, health status, etc. or reveal the results of an AIDS test. Each piece of information costs the student five Resource Units (RUs) which are used from the 100 RU budget. Additional RUs can be earned by answering questions in the event the student runs out before he/she determines the chain of infection. Three different chains are available for investigation. Upon completion of the activity, the student can be expected to have a better understanding of how AIDS is transmitted and how exposure to AIDS can be prevented.

Possible Uses: The program can be used by individual students or small groups of students and requires approximately 20-60 minutes to solve one infection chain.

Strengths: This program is very easy to operate and provides a very nice vehicle for students to apply their knowledge of how the AIDS virus is spread to a very simplified but realistic model. The program provides the option to print a copy of the data recording form if the student does not have one.

Weaknesses: It is the teacher's responsibility to emphasize that the model used in this simulation is greatly simplified and point out that the initial assumptions are not valid in the real world. One reviewer commented that the game mode used by the package is inappropriate for a study of AIDS. It will be necessary for the teacher to explain how to use the Data Recording Forms provided.

AIDS: The New Epidemic

Producer:	Marshware
Hardware:	Apple II + e c GS
Price:	\$57.70
Audience:	Grades 9-12
Type:	Tutorial, drill
Copyright:	1987

Description: The package contains one 5.25" disk, and an 11-page user's guide. The program offers an interactive tutorial, a 16-question quiz, and a 20-word on-line dictionary. The tutorial covers how the AIDS virus affects the body, symptoms of AIDS, how the virus is transmitted, what are the high-risk populations, and how AIDS can be prevented. The tutorials are a linear sequence of text and graphic screens mixed with multiple-choice questions, the same questions which appear in the quiz and are listed in the manual. If an incorrect response is made to a question, the program simply loops back to the tutorial screen containing the information.

Possible Uses: The program should be used by individual students. It requires approximately 15-40 minutes to complete the tutorial and five to 10 minutes for the quiz.

Strengths: The program provides the background materials necessary to successfully complete the simulation found in the second package of the series, "AIDS: The Investigation."

Weaknesses: The program is a linear tutorial with loopback feedback. If a student makes an error, he/she is not told why a response is wrong, but is required to reread the same passage of the tutorial. The tutorial has only one access point, the beginning, and the student cannot go to a previous screen unless they miss a question.

Body Awareness Resource Network: AIDS

Producer:	Learning Multi-Systems, Inc.
Hardware:	Apple II family, 48K, 1 disk drive, color monitor recommended
Price:	\$120.00, Series price: \$600.00
Audience:	Grades 7-12
Type:	Tutorial, drill, inventory, game, resource file
Copyright:	1988

Description: This package consists of a 43-page Administrator's guide, a start-up disk and two double-sided program disks. It is one in a series of seven packages which make up the Body Awareness Resource Network (BARN) designed for adolescents to make a comprehensive health awareness program. Other titles in the series include "Who to Call for Help," "Body Management," "Stress Management," "Smoking," "Alcohol and Other Drugs," and "Human Sexuality." This package contains a series of five activities covering AIDS. The Introduction presents a series of text and graphics screens which define AIDS, identify the symptoms, list ways to avoid contracting the disease, and give the objectives of the package. "Resources" is a database of national and local telephone contacts which students may use to find out more about AIDS. "AIDS Maze" is a game in which students try to escape from a maze by answering questions which if correct, temporarily tame a monster who is out to Zap them. In "AIDS Risk Assessment" the program calculates the student's risk of contracting AIDS based on his/her response to a series of 16 personal questions. "AIDS Advisor" offers answers to many questions commonly asked by teens. Topics include HIV, AIDS prevention, the relationship between AIDS and drugs, the relationship between AIDS and sex, and testing for AIDS. The start-up disk contains an administration program which allows the teacher to turn the sound on or off, permit or deny access to selected modules, and add information about local resources.

Possible Uses: This package is designed for use by individual students and each of the four activities would require approximately 20 to 30 minutes to complete.

Strengths: The "AIDS Risk Appraisal" part of this program is excellent and is a nice way to personalize the information. The "AIDS Advisor" contains questions high school students can identify with and offers relevant responses. The package makes good use of graphics.

Weaknesses: Both of the teachers who reviewed the package were critical of the tone of the "AIDS Maze" game. AIDS is a serious topic and making it into an arcade game is totally inappropriate. In addition, if the student does not answer correctly, he/she is returned to the beginning of the maze without any corrective feedback explaining why his/her answer was wrong. The introduction part of the program is simply an uninspiring series of text and graphics screens with no student interaction.

Body Awareness Resource Network: Human Sexuality

Producer: Learning Multi-Systems, Inc.
Hardware: Apple II family, 48K, 1 disk drive, color monitor recommended
Price: \$120.00, Series price: \$600.00
Audience: Grades 7-12
Type: Tutorial, drill, game, simulation, resource file
Copyright: 1985

Description: This package consists of a 43-page Administrator's guide, a start-up disk and six double-sided program disks. It is one in a series of seven packages which make up the Body Awareness Resource Network (BARN) designed for adolescents to make a comprehensive health awareness program. Other titles in the series include: "Who to Call for Help," "Body Management," "Stress Management," "Smoking," "Alcohol and Other Drugs," and "AIDS." This package offers a series of eight activities about human sexuality. The Introduction compares the student's responses to a survey of other teens about aspects of school, family, personal independence, and relationships with the opposite sex. "Soaps" is a simulation involving sexual decision making. "Reproductive Anatomy" is a tutorial and drill game covering the male and female reproductive system. "Pregnancy/VD Resources" is a database of local and national resources where students can get help. The "Sexually Transmitted Diseases Triangle" is a game which tests the student's knowledge of STDs. "Dear BARNY Letters" offers answers to over 300 questions commonly asked by teens. Topics include pregnancy, birth control, menstruation, erection, STDs, relationships, dating, and physical changes during adolescence. "Tough Choices" requires students to write a play in which their characters confront various sexual choices. Finally, "Skunk BARNY" is a game in which students respond to questions which focus on refuting common myths about sexuality. The start-up disk contains an administration program which allows the teacher to turn the sound on or off, permit or deny access to selected modules, and add information about local resources.

Possible Uses: The package is designed for use by individual students and each mini lesson takes approximately 20 minutes to complete.

Strengths: The feedback on student responses provides good information in a nonjudgmental manner. Students enjoyed the "STD Triangle" game and found the "Soaps" to be funny and to hold their interest.

Weaknesses: Very little graphics are used. The presentations are primarily text, some of which is quite lengthy. There is very little variety in student input and generally the package does not hold the student's interest.

Comments: It is important to match the maturity level of the student with that of the package. Otherwise, some of the activities seem "corny" to more mature students.

Practicing Sexual Decision Making

Producer: SAE Software
Hardware: Apple II Family, IBM PC, Tandy 1000
Price: \$39.95
Audience: Grades 8-Junior college
Type: Tutorial, simulation
Copyright: 1987

Description: The package consists of one 5.25" disk and a one-page instruction sheet. The software first introduces a six-step decision-making process which the student must then apply to a given simulated sex-related situation commonly experienced by teenagers. Students are encouraged to define the problem, identify all possible solutions, determine the effects of each possible solution, and then select the most desirable, the most practical, and finally the most appropriate solution. The simulation begins when the student is asked to play the role of a fictitious individual for which the student must make a series of decisions about his or her sexual activity. With each decision, the program guides the student through the decision-making process. Subsequent decisions are based upon the typical outcomes of previous decisions.

Possible Uses: The program can be used by individuals or small groups of students and would require approximately 30 to 60 minutes to complete the tutorial and one simulation.

Strengths: The program presents a valid decision-making model and encourages the student to apply the model to realistic sex-related situations.

Weaknesses: The program employs a very definite philosophy about what is right in a given situation, especially regarding abortion. The student cannot proceed until he/she gives the "correct" response. The program uses text only without any graphics. There is no escaping to a menu. Once the program begins, the student must continue to its completion. Although the program stresses the decision-making model, the simulation is so simplified that the first three steps of the decision-making process introduced are inappropriate and not reinforced during the simulation.

Romance: Game of Choice About Sex

Producer: SAE Software
Hardware: Apple II family, IBM PC, Tandy 1000
Price: \$49.95
Audience: Grades 7-Junior college
Type: Game, simulation
Copyright: 1988

Description: The package contains one disk, a one-page instruction sheet, and a reproducible student record sheet. Students earn and spend money during a series of activities involving their knowledge of contraception methods and sexual decision making. The program begins by asking several questions regarding the student's background and sexual desires and then presents a bonus question. In the first activity, the student is given a series of three typical boyfriend/girlfriend situations, the first involving the decision of whether or not to become involved in sexual intercourse, the second involving contraception, and the third involving the options when the girl's period is two weeks late. For each, the student must prioritize the available options. In the second activity, the student plays the part of a hot-line operator responsible for answering caller's questions about personal sexual matters. In the third activity, the student must select the form of contraception used during four sets of nine sexual encounters with his/her partner. Whether or not the girl becomes pregnant is based on the statistical probability of the contraception method used. If pregnancy does occur, the student is given the option of keeping the baby, giving it up for adoption or aborting the pregnancy. Upon completion of all of the activities, the program calculates the student's balance after spending money on children and/or abortion and earning money by correctly answering questions.

Possible Uses: The program is designed for use by one student at a time and would require approximately 20 to 40 minutes to complete.

Strengths: The program automatically tailors the orientation of the questions toward the sex and sexual desires of the user.

Weaknesses: Graphics are primitive by today's standards. The program must be completed during one computer session. If the student does not complete the entire program, there is no way to start where he/she left off. The program does not have a clear objective. The student is never made aware of exactly what it is he/she is to achieve. Facts given about the legal age for the sale of birth control and cost of abortion is only valid in certain states.

STD: Sexually Transmitted Disease Information

Producer: Health EduTech
Hardware: A Videodisc player for level II operation. For level III operation, an IBM PC or compatible with appropriate interfacing with videodisc player is required.
Price: \$1895.00
Audience: Grades 9-Adult
Type: Tutorial, drill
Copyright: 1986

Description: The level II version of this package contains one double-sided videodisc, an eight-page administrator's guide, a four-page student guide, and a one-page reproducible posttest. The computer software is included with the level III version. The videodisc begins with a brief introductory video sequence followed by the main menu of video sequences which cover AIDS, chlamydia, genital warts, gonorrhea, herpes, syphilis, vaginitis, viral hepatitis, and the conclusion. For each STD selected the program offers video sequences covering the definition, symptoms, treatment, transmission, complications, and lifestyles and prevention. At the conclusion of each sequence, the student is given the option of answering several multiple-choice questions on the material covered or returning to the menu. If the student gives an incorrect response, the program shows that portion of the video containing the answer. In the level II version, all menu responses and menu selections are made using the remote control of the videodisc player. The software accompanying the level III version adds a management system and the ability to make responses and menu selections from the computer keyboard.

Possible Uses: The videodisc is designed to be used by individual students, however, the video could be used as a teacher-controlled demonstration with large groups of students. Each video sequence is from five to 10 minutes, and the question for each required less than five minutes. Approximately 40 minutes is required for coverage of each STD.

Strengths: The video presentation is more likely to hold the student's interest than the text-oriented tutorials found in the computer software. The information is presented in a clear, concise manner. The system is highly interactive allowing access to almost any video sequence.

Weaknesses: The program does not do a good job representing minorities and ethnic groups. All actors are white. Several scenes portray young people drinking alcohol and having a good time. Some school districts prohibit use of such materials. Some of the question sections are as short as one question.

Comments: The nature of the material presented makes this package appropriate for mature high school students or adults.

Understanding AIDS

Producer: SAE Software
Hardware: Apple II Family, IBM PC, Tandy 1000
Price: \$49.95
Audience: Grades 8-Junior college
Type: Tutorial, drill
Copyright: 1987

Description: The package consists of one 5.25" disk and a one-page set of instructions. The software contains program operating instructions, a 21-question self-test, a series of seven tutorials, a reference and resource list, and a 25-word glossary. The tutorials cover a general introduction to AIDS, a brief history of the disease, who gets AIDS, how AIDS affects the body, how it is spread, prevention of AIDS and current treatment. Each tutorial is a linear sequence of mostly text followed by true-false or multiple-choice questions. Feedback is given for every response. If the student makes a wrong response, feedback is given and the program returns to the same question for the student to select a different response.

Possible Uses: The program is designed for use by individual students. Each of the seven tutorials and the self-test will take from 5-10 minutes to complete.

Strengths: The program does a very thorough job of covering the material. The student receives feedback which gives additional information on every response regardless of whether the response is right or wrong. The glossary is available from almost anyplace in the tutorials. In the IBM version, the student is given the opportunity to explore the feedback of the other responses as well as his/her initial response.

Weaknesses: The IBM version evaluated employs a clumsy and inconsistent user interface. The +, P, M, and Enter keys are all used to proceed to the next section at various times during the program, but generally only the correct one will work. The format of text mixed with questions is not motivating to students.

Venereal Disease

Producer: Queue
Hardware: 48K Apple II family, 64K IBM PC,
128K Macintosh
Price: \$39.95, \$49.49 with management
system (Apple)
Audience: Grades 7 and above
Type: Tutorial, drill
Copyright: 1987

Description: The package consists of one 5.25" disk and a 10-page user's manual. The disk provides 10 tutorials, each of which is a series of text passages followed by one or more related multiple-choice questions. The lessons are titled "Introduction," "Gonorrhea I & II," "Syphilis I & II," "Herpes," "AIDS," "Other STD's," and "Review." The number correct and

incorrect and the percentage correct is given upon completion of each exercise. A management system is available for the Apple version.

Possible Uses: The program should be used by individual students. It requires approximately 10-20 minutes to complete a lesson.

Strengths: Covers a wide variety of STDs. Students are given correct responses and an explanation each time they give an incorrect answer. The package is easy for both the student and teacher to use.

Weaknesses: The lessons are a linear sequence with no branching or randomization of questions. The instructional format of text followed by questions without any variation or graphics is very monotonous. The fill-in-the-blank questions do not account for alternate correct responses. The documentation is minimal. In general the package is quite boring and does not engage the students.

PRODUCER CONTACT INFORMATION

Computer Learning Works
Suite 219, 82 Plaza
Starkville, Mississippi 39759
601/323-3542

Health EduTech
7801 East Bush Lake Road, Suite 350
Minneapolis, Minnesota 55435
612/831-0445

Learning Multi-Systems, Inc.
320 Holtzman Road
Madison, Wisconsin 53713
608/273-8060

MarshWare, A Division of MarshFilm
P.O. Box 8082
Shawnee Mission, Kansas 66208
800/821-3303, 816/523-1059

Orange Juice Software Systems
338 South Arch Avenue
New Richmond, Wisconsin 54017
715/246-3588

Queue
562 Boston Avenue
Bridgeport, Connecticut 06610
800/232-2224, 203/335-0906

Substance Abuse Educational Software (SAE)
670 South 4th Street
Edwardsville, Kansas 66113
913/441-1868

APPENDIX



COURSEWARE EVALUATION



**NORTHWEST REGIONAL
EDUCATIONAL LABORATORY**

Package Title _____ Producer _____
 Evaluator's Level and Subject Taught _____
 Evaluator Name _____ Organization _____
 Date _____ Check this box if this evaluation is based partly on your observation of student use of this package

Reviewer Statement of Non-Violation of Copyright

The producer's copyright was respected during this evaluation, and I did not copy or attempt to copy any portion of this package

Signature _____ Date _____

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

Please include comments on individual items on the reverse page

CONTENT CHARACTERISTICS

1. SA A D SD NA The content is accurate (p. 16)
2. SA A D SD NA The content has educational value (p. 16)
3. SA A D SD NA The content is free of race, ethnic, sex, and other stereotypes (p. 16)

INSTRUCTIONAL CHARACTERISTICS

4. SA A D SD NA The purpose of the package is well defined (p. 17)
5. SA A D SD NA The package achieves its defined purpose (p. 17)
6. SA A D SD NA Presentation of content is clear and logical (p. 17)
7. SA A D SD NA The level of difficulty is appropriate for the target audience (p. 18)
8. SA A D SD NA Graphics/color/sound are used for appropriate instructional reasons (p. 18)

9. SA A D SD NA Use of the package is motivational (p. 19)
10. SA A D SD NA The package effectively stimulates student creativity (p. 19)
11. SA A D SD NA Feedback on student responses is effectively employed (p. 20)
12. SA A D SD NA The learner controls the rate and sequence of presentation and review (p. 20)
13. SA A D SD NA Instruction is integrated with previous student experience (p. 29)
14. SA A D SD NA Learning can be generalized to an appropriate range of situations (p. 29)

TECHNICAL CHARACTERISTICS

15. SA A D SD NA The user support materials are comprehensive (p. 30)
16. SA A D SD NA The user support materials are effective (p. 31)
17. SA A D SD NA Information displays are effective (p. 31)
18. SA A D SD NA Intended users can easily and independently operate the program (p. 32)
19. SA A D SD NA Teachers can easily employ the package (p. 34)
20. SA A D SD NA The program appropriately uses relevant computer capabilities (p. 34)
21. SA A D SD NA The program is reliable in normal use (p. 35)

QUALITY

Write a number from 1 (low) to 5 (high) which represents your judgment of the quality of the package in each division

- _____ Content Characteristics
 _____ Instructional Characteristics
 _____ Technical Characteristics

RECOMMENDATIONS

- I highly recommend this package
- I would use or recommend use of this package with little or no change (Note suggestions for effective use below)
- I would use or recommend use of this package only if certain changes were made (Note changes under Weaknesses or Other Comments.)
- I would not use or recommend this package (Note reasons under Weaknesses.)

Describe the potential use of the package in classroom settings:

Estimate the amount of time a student would need to work with the package in order to achieve the objectives:
(Can be total time, time per day, time range or other indicator.)

Strengths:

Weaknesses:

Other Comments:

Northwest Regional Educational Laboratory

Robert R. Rath, Executive Director
Ethel Simon-McWilliams, Associate Director

The Northwest Regional Educational Laboratory (NWREL) is an independent, nonprofit research and development institution established in 1966 to assist education, government, community agencies, business and labor in improving quality and equality in educational programs and processes by

- Developing and disseminating effective educational products and procedures
- Conducting research on educational needs and problems
- Providing technical assistance in educational problem solving
- Evaluating effectiveness of educational programs and projects
- Providing training in educational planning, management, evaluation and instruction
- Serving as an information resource on effective educational programs and processes including networking among educational agencies, institutions and individuals in the region

Center for Advancement of Pacific Education

John Kotel, Director

Center for National Origin, Race, and Sex Equity

Ethel Simon-McWilliams, Director

Education and Work

Larry McClure, Director

Evaluation and Assessment

Gary Estes, Director

Literacy, Language and Communication

Stephen Reeder, Director

Planning and Service Coordination

Rex Hagans, Director

R&D for Indian Education

Joe Coburn, Director

School Improvement

Bob Blum, Director

Technology

Don Holznapel, Director

Western Center for Drug-Free School and Communities

Judith A. Johnson, Director

Institutional Development and Communications

Jerry Kirkpatrick, Director

Finance and Administrative Services

Joe Jones, Director

Board of Directors

Nancy Keenan
Montana Superintendent of
Public Instruction

C.J. Baehr
Manager, Hawaii Interactive
Television System

Charles Bailey
Education Director
Washington State Labor Council AFL/CIO

Robert D. Barr
Dean, OSU/WOSC School of Education
Oregon State University

Barbara Bell
Attorney
Great Falls, Montana

Jacob Block (Secretary-Treasurer)
Superintendent
Missoula Elementary District (Montana)

Raina J. Bohanek
Teacher
Coeur d'Alene School District (Idaho)

Judith Billings
Washington Superintendent of Public
Instruction

Catalino Cantero
Assistant to the Secretary for Education
Federated States of Micronesia

William Demmert
Alaska Commissioner of Education

Jean M. Dobashi
Teacher
Kauai High/Intermediate School (Hawaii)

Verne A. Duncan
Oregon Superintendent of Public Instruction

Jerry L. Evans
Idaho Superintendent of Public
Instruction

Earl Ferguson
Superintendent
Klamath Falls Union High
School District (Oregon)

Joseph Haggerty
Principal
Blanchet High School
Seattle, Washington

James E. Hamis
Beaverton School Board (Oregon)

Richard L. Hart
Dean, College of Education
Boise State University (Idaho)

Marilys Henderson
Teacher
Fairbanks School District (Alaska)

Jerry Jacobson
Superintendent
Idaho Falls School District (Idaho)

Homer Kearns
Superintendent
Salem-Keizer School District (Oregon)

Spike Jorgenson
Superintendent
Alaska Gateway School District

John Kohl
Dean, College of Education
Montana State University

Dale Lambert
Teacher
Eastmont School District (Washington)

Joe McCracken
Superintendent
Lockwood Elementary District (Montana)

Zola McMurray
Business Woman
Lewiston, Idaho

G. Angela Nagengast
Teacher
Great Falls High School (Montana)

Edie Omer
Teacher
Corvallis School District (Oregon)

Barnay C. Parker (Chairman)
Superintendent
Independent District of Boise (Idaho)

Rosa Salas Palomo
Director of Education
Guam Department of Education

Fred Pomeroy
Superintendent
Kenai Peninsula Borough Schools (Alaska)

Dennis Ray
Superintendent
Walla Walla School District (Washington)

Donis Ray
Fairbanks School Board (Alaska)

Henry Sablan
Superintendent of Education
Commonwealth of Northern Mariana Islands

Tauese Sunia
Director of Education
Government of American Samoa

Charles Toquchi
Superintendent
Hawaii Department of Education

Doyle E. Winter (Vice Chairman)
Superintendent
Educational Service District 121
Seattle, Washington

Center for the Advancement
of Pacific Education
1164 Bishop Street, Suite 1409
Honolulu, Hawaii 96813
(808) 533-1748
SOURCE: BDE961
FAX: (808) 523-1741

NWREL Headquarters
101 S.W. Main Street, Suite 500
Portland, Oregon 97204
(503) 275-9500
SOURCE: STL058
FAX: (503) 275-9489

Alaska Office:
Goldstein Building, Room 506
130 Seward Street
Juneau, Alaska 99801
(907) 586-4952