DOCUMENT RESUME

ED 106 509 CE 003 675

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TITLE The Health and Welfare Module: An Evaluation Report for the Occupational Exploration Program.
INSTITUTION Ohio State Univ., Columbus. Center for Vocational and Technical Education.
PUB DATE Sep 74
NOTE 126p.; For related volumes see CE 003 668-674

EDRS PRICE MF-$0.76 HC-$6.97 PLUS POSTAGE
DESCRIPTORS Analysis of Variance; *Career Education; Evaluation Criteria; Grade 8; Grade 9; Health Occupations; Health Personnel; *Human Services; *Junior High Schools; Occupational Choice; Occupational Information; Pilot Projects; *Program Evaluation; Questionnaires; Role Playing; *Simulation; Statistical Analysis; Student Reaction; Teaching Methods; Welfare Services
IDENTIFIERS *Career Exploration; Occupational Exploration Program; OEP

ABSTRACT

The evaluation report is one of seven produced for the Occupational Exploration Program (OEP), a series of simulated occupational experiences designed for junior high school students. Describing the pilot testing of the simulation dealing with health and welfare, the report contains sections describing the simulation context, evaluation procedures, results, and a Reviser's Information Summary (RIS). In the simulation, students assumed the responsibilities of health and welfare workers in a drug treatment center. The occupational roles included one director, physician, psychologist, medical technician, pharmacologist, nurse, probation officer, and social workers. The experimental design involved two Colorado schools, with a total of four experimental and four control groups involving 73 eighth and ninth graders. Instrumentation included knowledge and affective testing, student and teacher questionnaires, and a panel review. Analysis of variance and other descriptive statistics were employed, and reliability estimates were calculated. Analysis of variance results revealed that the simulation had a positive impact on student occupational knowledge. No statistically significant results or changes in occupational preference were noted. The RIS records and extrapolates trends related to the strengths, weaknesses, and recommendations from all data sources. Appended materials include the evaluation instruments used and an observer form. (MW)

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FEB 28 1975

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THE HEALTH AND WELFARE MODULE
AN EVALUATION REPORT FOR THE OCCUPATIONAL EXPLORATION PROGRAM

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September, 1974

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ABSTRACT

HEALTH AND WELFARE

EVALUATION REPORT FOR THE OCCUPATIONAL EXPLORATION PROGRAM

By: James W. Altschuld; Janice Lave; Roger Brown

This report is one of seven evaluation reports produced for the Occupational Exploration Program. The Occupational Exploration Program (O.E.P.) is funded by the National Institute of Education and is a joint development effort of The Center for Vocational Education (The Ohio State University) and the Jefferson County, Colorado public schools. O.E.P. is a series of experiences designed to provide junior high school students with the opportunity to explore occupations. One of the major vehicles for exploration is the simulation technique. In 'FY' 1974, 12 simulations were developed and seven of those 12 were pilot tested. This report describes the pilot testing of the simulation dealing with health and welfare. The report contains section describing simulation context, evaluation procedures, results and a Revisor's Information Summary (RIS). The RIS is useful for a variety of purposes and includes the strengths of the simulation as well as its weaknesses. Below is a synopsis of the specific content of the report.

SIMULATION CONTEXT: The participants in this simulation are introduced to some of the issues in the health and welfare field, and the roles and responsibilities of health and welfare workers in a drug treatment center. The students work in their various roles solving the problems of clients. For instance, the psychologist studies case histories and notes information needed to work effectively with other staff; the medical doctor diagnoses clients' illnesses and determines if additional lab tests are needed. In the culminating activity, the center staff prepare and deliver statements supporting the operation of the drug treatment center at a city council meeting. The occupational roles include one director, physician, psychologist, medical technician, pharmacologist, nurse, probation officer, and social workers. EXPERIMENTAL DESIGN: For evaluating this simulation, 4 schools, two from Jefferson County, Colorado and two from Denver, Colorado were used, each school having one experimental and one control group. A teacher facilitated the implementation of the simulation with each experimental group. The experimental and control groups consisted of 8th and 9th graders; 30 students in the four experimental groups and 43 students in the four control groups. A modified laboratory or quasi-experimental setting was utilized for product tryout. INSTRUMENTATION: A 32 item multiple choice knowledge test, "What Do You Know?" and a 6 item affective test, "What Do You Like?", were administered as pre- and posttests measuring student knowledge gain and attitudinal change. The student post-module questionnaire, "What Do You Think?", administered to the experimental group after completion of the simulation, measured student perceptions of the module. Two teacher questionnaires and two panel reviews (mid- and post) were designed to obtain teacher perceptions of the simulation. Observers

were utilized to collect additional information about module implementation. ANALYSIS: The knowledge test and affective test results were derived through analyses of variance. Other descriptive statistics were employed where appropriate (i.e., frequency, percentage, percent change). Reliability estimates were calculated to obtain the internal consistency estimates of the knowledge test and to determine inter-coder and intra-coder agreement for the attitude scale. RESULTS: The ANOVA results reveal that the simulation had a positive impact on student knowledge in the health and welfare field ($p \leq .01$); although shifts were noted in student occupational preferences, the changes were not statistically significant. In general, the simulation was well received by students and teachers as indicated from the strong positive trends which emerged from the questionnaires. THE REVISOR'S INFORMATION SUMMARY: The RIS was designed to not only assist revisors to assimilate information collected during the pilot-test, but also as a unique way of summarizing the data. The summary is a record of the strengths, weaknesses and recommendations for revisors from all data sources (i.e., student tests, student questionnaires, observer forms, teacher questionnaires, etc.). Trends have been extrapolated which list the most apparent strengths and weaknesses of the simulation as well as recommendations to be considered in the revision of the simulation.

The project presented/reported herein was performed pursuant to a grant from the National Institute of Education, Department of Health, Education, and Welfare. However, the opinions expressed herein do not necessarily reflect the position or policy of the National Institute of Education, and no official endorsement by the National Institute of Education should be inferred.

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Acknowledgements

An evaluation report is usually a product of the endeavors of many individuals. The authors of this report therefore wish to thank:

1. Patricia Shively for helping in the development of all of the instrumentation used in the evaluation of this module;

2. The teachers, administrators, and students in Jefferson County, Colorado and Denver, Colorado who, by participating in the use of educational materials and in the testing of those materials, made this evaluation report possible;

3. Jon Schaffarzick, Michael Hock, and David Hampson of the National Institute of Education for their support of this effort; and

4. The eleven project staff members identified on the cover, who, by their support, expertise and/or direction contributed to the production of this report.

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Health and Welfare

I. Brief Description of the Module

The Health and Welfare module consists of a preview,* a preparation section, and four major tasks or activities. The preview consists of a two part slide-tape presentation: Part I is a general introduction to health and welfare designed to introduce the students to issues in the field; in Part II the basic elements of the simulation drug treatment center and the role of its workers are introduced. The first slide-tape explains the need for personnel to become involved with the health and welfare of individuals. In the second part, the drug treatment center is presented as an example of health and welfare workers joining together to aid people who need their assistance. The students are introduced to eight different occupations of people who work at the drug treatment center. These are: the director of the center, medical doctor, psychologist, medical technician, pharmacologist, nurse, probation officer and social case worker. At the conclusion of the preview, the students are asked to decide if they would like to continue in the module. (The option of not participating may not have been possible in the pilot test.) The preview is designed for two class periods.

If the students decide to continue in the simulation activity, they enter the Preparation segment of the module. In order to aid the students in selection of their roles, the Preparation Handbook, "What Job Do You Want?", describes the roles. After reading the job descriptions, the students complete the job aptitude form, use the overlay to categorize

*Prior to the preview, the students have seen a slide-tape and/or a booklet entitled Introduction to Simulation.

their job preference and complete the job preference profile. Students who would like to be director of the center indicate their desire at this time. The director is chosen by the drawing of lots from those students who expressed preference for the role. The preparation section is scheduled to last one class period.

In Task 1, Staffing the Center, the students read the general tasks handbook, view the videotape entitled "Interviewing", and complete job applications for positions other than director of the drug treatment center. The director then reviews the applications, interviews candidates for the position, and selects the personnel for the center. Task 1 is designed to last one to two class periods.

In Task 2, People Who Come to the Center, the importance of cooperation among staff members and the effective handling of the cases of people who come to the treatment center for help is stressed. After participants read the Task 2 Handbook, the director organizes the center's first staff meeting. Items on the meeting's agenda include staff introductions, the assignment of case loads to various staff members, and the discussion of the three case histories. Task 2 is scheduled to last one class period.

In Task 3, "Working Together to Help People", the participants work alone or in consultation with other members of the Center in solving of the problems described in each case history. Each member of the staff reads the Task 3 Handbook and his specific role handbook. The role handbook provides the participants with their assignment for Task 3. In this task, the director is responsible for coordinating the efforts of the staff at the center and answering letters from members of the community who are displeased with the center in their neighborhood. The case worker is assigned to write a case history of Norman from the tape pro-

vided in the module. The probation officer makes decisions concerning Norman's problems, completes necessary legal forms and serves as a consultant on other cases. The psychologist studies the case histories and notes the information needed to work effectively with the client or other staff members. The medical doctor diagnoses client illnesses and determines if additional lab tests are needed after studying symptoms given in case histories. The medical technician grows a bacteria culture and uses prepared slides to compare abnormal blood cells to normal blood cells. The pharmacologist conducts experiments and analyzes unknown quantities of drugs to determine the type of drug potentially ingested by the patient. The nurse transfers information from case histories to medical record forms, orders lab tests, records lab results, and obtains additional medical histories of clients by corresponding with other medical clinics. Task 3 was designed to last for two to three class periods.

In the Task 4 Handbook "Community Relations", the participants are made aware of citizens' petitions sent to city council about closing the drug treatment center. The staff of the center prepares statements supporting the center's operation. These statements are later presented before the city council's public hearing. Depending upon the availability of students, either students who did not participate in the module's activities or teachers who implemented the simulation played the role of the council. At the public hearing, the council decides whether to keep the center open. Their decision is based on the effectivness of the center's staff presentations. Task 4 is designed to last two class periods.

The overall length of this simulation is approximately 10-12 periods of regular classroom time, i.e., about 45 minutes per period.

II. Description of Evaluation Procedures Employed

A. Specific Sample Used

1. Schools - For this module two Jefferson County and two Denver schools were used. In each school there was one experimental and one control group. The schools and the teachers were selected via discussion with administrators and teachers in each of the districts. A brief description* of the schools follows.

Alameda Junior High School (Grades 7-9), Jefferson County.

Alameda Junior High School is a small school with approximately 700 students in grades seven through nine. It seems to have a fairly stable school population in that school records indicate that over seventy percent (72%) of the ninth grade population have been in this particular school for three consecutive years. Additionally, very few of the ninth graders have attended more than two elementary schools. Lorge-Thorndike tests administered at the school indicate a fairly normal distribution of student ability. The distribution of parental occupations shows that 48 percent of the mothers are working and that almost 54 percent of the fathers are in managerial, professional, or skilled positions. The school population is primarily caucasian (93 percent) with the remaining seven percent coming from other minority groups.

*Descriptions were obtained by John Radloff of the Jefferson County project staff.

Wheat Ridge Junior High School (Grades 7-9), Jefferson County.

Wheat Ridge Junior High School is a small school with approximately 725 students in grades 7-9. Twenty students are classified as mentally retarded. Generally, the school draws its student body from a middle class, blue collar area. About 30 students come from families receiving Aid to Dependent Children (ADC) and many students are from divorced homes. The area of Jeff Co. represented by this school has many older single family houses. There is a sizeable retired subgroup within the area population. The students are primarily white (~93%) with the rest (~7%) having Spanish surnames. The school reports that standardized test results indicate that school scores are improving and that it is either at or above district norms in most cases.

Hamilton Junior High School (Grades 7-9), Denver.

Hamilton Junior High School is a large school with approximately 1,600 students enrolled in grades seven through nine. The area served by the school is quite large and over sixty percent of the students at Hamilton are bussed in each day. The students generally come from the middle income range but there are some students from upper income areas. Student achievement seems to be relatively high (According to the assistant principal, over half of the seventh grade students maintain a B or higher academic average.) The racial make-up of the school is estimated to be 80 percent caucasian and about 20 percent in minority groups. Further specification of the population was not available for this school.

Lake Junior High School (Grades 7-9), Denver.

Lake is a large Denver junior high school with well over a thousand students. Although demographic data was not available at the time of this writing several factors about the school are known. First, it has a sizeable percentage of students with Spanish surnames. Secondly, in general Lake has a high rate of absenteeism. (As soon as additional data becomes available, it will be appended to this report.)

2. Teachers

In each of the four schools, one teacher implemented the module with the experimental group of students. The following table contains a brief description of the experimental group teachers and the method by which they participated in the study.

Description of Experimental Teachers

	Alameda	Wheat Ridge	Hamilton	Lake
Sex	Male	Female	Female	Male
Subject Area Specialty	Social Studies	Counselor	Unknown	Social Studies
Had prior experience with simulation techniques	Yes	No	Yes	Yes
Participation selected / or volunteered	Selected	Volunteered	Selected	Volunteered

3. Students

The following table reveals the sample size of students participating in the experimental and control groups by school and by sex. The results show that the sex ratio was nearly equal for the experimental group whereas males were in somewhat greater proportion in the control group.

Frequency* of Experimental and Control Participants by School and Sex

School	Alameda		Wheat Ridge		Hamilton		Lake		Total	
	Experimental	Control	Experimental	Control	Experimental	Control	Experimental	Control	Experimental	Control
Males	2	3	7	7	2	7	3	9	14	26
Females	7	6	2	6	5	3	2	2	16	17
Total	9	9	9	13	7	10	5	11	30	43

* The Frequency is based on participants with complete pre-posttest data.

The experimental group participants were selected or volunteered from the following classes: Alameda - eighth grade students were selected from a language arts class; Wheat Ridge - eighth grade students volunteered from an English and a Math class; Hamilton - ninth grade students volunteered from a study hall; and Lake - ninth grade students were selected from a social studies class.

At Alameda, the teacher described the group as having some slow readers, short attention spans and absenteeism. He felt the students had trouble reading directions and staying with the task.

At Wheat Ridge, the teacher indicated one half of the class had excellent reading and verbal skills while one half did not. However, despite the

differences in reading ability, all students worked well together and began to like students with different ability levels than their own.

At Hamilton, the teacher indicated that all the students were good readers and most were outgoing.

At Lake Jr. High, the teacher described 5 students as being highly verbal and well motivated and 3 students as having low ability. The teacher felt the group did not function as a unit. The three low-ability students accomplished the tasks independently and were ill at ease with others in the group.

The method by which the control groups were obtained is not totally clear. In the testing of 4 modules in the Spring of 1974 it was not feasible* for one individual to administer the tests. Therefore in each school either the experimental group teacher or another educator selected and administered the tests to a control group. It was suggested that testers try to select or sample students similar to those in the experimental group, i.e., if the experimental group was an English class then the tester was instructed to obtain a second English class for the control group. It is assumed that, to the extent possible, these directions were carried out.

In summary, the sampling was far from ideal. It was impossible to conduct more systematic sampling due to program and organizational constraints within buildings. It should be noted that experimental results are based only on students who completed both the pre- and posttest. There was sample loss in the testing of the module as described in the following table.

*The time and monetary allocations for the pilot test precluded the use of extensive checks on the sampling procedure in the field.

Frequency and Percent of Sample Loss by Group

	Original Total	Sample Loss	Percent of Total
Experimental	36	6	16.5%
Control	47	4	8.5%
Total	83	10	12.0%

Sample loss is always difficult to account for in an experimental situation. Some students may have been sick or otherwise out of the classroom during the pre- or posttesting time. The logistical set-up for the test of this module required that an administrator be present at each testing session. Provisions for follow-up testing of students who missed a session were not feasible given the available manpower in the field. Some students may simply have avoided taking the tests. The sample loss in this instance is relatively small. The results of the experimental design would seem to be valid and therefore efforts will not be made to study the loss in detail.

II. B. Types of Classes or Groupings

Knowledge of the type of class or group setting in which the module has been tried is important information in regard to interpreting the module results. For the 4 modules tested in the Spring of 1974 a modified laboratory setting was utilized. Either a classroom or a space within a library was set aside for use by students participating in the module. When necessary, special equipment (e.g., video tape machines, sound on slide projectors, etc.,) was provided and if possible, stored in the space designated for the project. It was felt that this specialized area would tend to:

- reduce the number of competing or distracting factors for the simulating group;
- be representative of one way in which a school could implement the OEP program;
- reduce the necessity to move equipment around from period to period; and
- provide a place for students to store materials from one simulation day to the next.

All experimental groups were conducted in this specialized or quasi experimental type of setting. Testing was also generally carried on within this setting.

II. C. Experimental Design as Implemented.

There were two constraints surrounding the implementation of the design as specified in the proposal for this module. Given the relatively small sample size a decision was made not to include sex as a variable. This eliminates the possibility of studying the test scores of males and females, but inclusion of this variable would so reduce the cell size as to make meaningful interpretations difficult at best. The second constraint concerns the way in which the field test design was implemented. Four schools were tested, two classrooms or groups per school. Within each school one classroom was assigned to the experimental treatment and the other to the control treatment. It is apparent that no estimates of between class variability can be computed and that any unique classroom effects are confounded with treatment effects. However, the test of treatments and associated interactions is assumed to valid.* The design is depicted schematically in Figure 1 below:

*This statement is based on the presumption that there were no unique classroom effects, one that is supported in earlier field trials. The reader should note that this design was implemented only after consideration was given to the practical aspects of implementing the design. It was the most feasible one given the field situation.

Figure 1 - Schematic of the Experimental Design for the Health & Welfare Module.

		Pretest	Posttest
Alameda (Jefferson County)	Experimental	S_1* ⋮ S_n	S_1 ⋮ S_n
	Control	S_1 ⋮ S_n	S_1 ⋮ S_n
Wheat Ridge (Jefferson County)	Experimental		
	Control		
Hamilton (Denver)	Experimental		
	Control		
Lake (Denver)	Experimental		
	Control		

* In order for a student's scores to be included in the analysis, he would have had to participate in both the pre and posttest.

The analysis will be the same as designated in the project proposal for the Occupational Exploration Program (FY'74) with the exception that the sex variable has been deleted and two schools were added. Of key interest will be the interaction between the experimental-control variable (B) and the pre- and posttest variable (C). If the module has had an impact upon students, a significant interaction would be expected with the source of the interaction being a sizeable experimental group gain on the posttest. Separate analyses will be run for the total cognitive test scores as well as for one dimension of the attitudinal scale. The analyses will be in accordance with the abbreviated summary table shown below.

Table 1 - Partial Anova Summary Table
For the Advertising Module

Source*		df	Potential F Test
	Between Students	abn-1	
Term No.			
1	A	a-1	1/4
2	B	b-1	2/4
3	AB	(a-1)(b-1)	3/4
4	D/AB	ab(n-1)	
	Within Students	abn(c-1)	
5	C	c-1	5/9
6	AC	(a-1)(c-1)	6/9
7	BC*	(b-1)(c-1)	7/9
8	ABC	(a-1)(b-1)	8/9
9	CD/AB	ab(c-1)(n-1)	
	TOTAL	abcn-1	

* A brief discussion of the variables will be included in the text immediately following this table.

The independent variables for this module are described below:

Variable	Description	Type
A	Schools (Alameda, Wheat Ridge, Hamilton and Lake)	Fixed; between S's
B	Treatment (experimental vs. control)	Fixed; between S's
C	Testing (pre. vs. post)	Fixed; within S's (repeated measure)
D	Students	Random; nested within AB combinations

II. D. Instrumentation - Instrument Specifics

1.) Knowledge Test - What Do You Know? (The test is appended to this report)

The knowledge test for health and welfare consisted of 34 multiple choice questions. The test items emphasized two basic dimensions - process and responsibility. A process item generally dealt with understanding the nature of the steps involved in the operation of drug treatment center and the necessary information to perform a certain function. An example of a process question is:

Test Question #14

What is the first step in helping someone who comes to a drug treatment center and who does not require immediate medical attention?

*a. Interview the person

b. Identify job possibilities for the person

c. Provide legal assistance for the person

d. Arrange financial help for the person

*Indicates correct response

Responsibility questions dealt with identifying who or what group of people has responsibility for getting a certain job done, or who has responsibility for making decisions at a certain point in time, etc. An example of a responsibility item is:

Test Question #30

The Spaceship "Enterprise" has returned from a twelve-year voyage into space. On one of its stops, the crew became addicted to a new drug contained in a sweet and good-tasting fruit. They have been referred

to your drug treatment center. Who at the center will most likely study the new drug and the effects of the addiction?

a. The nurse

b. The physician

*c. The pharmacologist

d. The medical technician

*Indicates correct response

The following table shows the breakdown of the test items by test content and by the process and responsibility dimensions. The content has been subdivided into two areas: general considerations and specific occupations. The test was designed to cover most of major aspects of content present in the module.

Table 2

Analysis of Test Content

Content Area	Process	Responsibility	Total
General Considerations			
Center Operation	9		9
Patient	2		2
Specific Occupation			
Center Director	1	4	5
Probation Officer		2	2
Social Worker		3	2
Pharmacologist	1	2	3
Medical Technician	2½**	1	3½**
Nurse	1	1	2
Physician	½**		½**
Psychologist		4	4
TOTAL	17	17	34

**Some items measured content-related to two occupational areas, i.e., determining a common function or responsibility between two occupations.

2) Affective Test - What Do You Like? (The test is appended to this report).

The affective test was designed to measure student attitudinal change. The first six questions asked the student if he/she would like to try doing an activity. The student could respond in one of four ways to the item:

1) Yes, I would like to try this

2) No, I would not like to try this

3) I'm uncertain about trying this

4) I don't have enough information to know if I would like to try this.

The scale is scored so that the stronger the preference for trying to do an activity, the higher the score. Thus, yes and no responses receive the same scale value of 3, uncertain responses receive a 2, and not enough information types of responses receive a value of 1. These values are then summed and used in the analysis of variance described earlier. Summed scores can vary from zero (no response whatsoever) to 18. Note the scale is scored so that strength of preference, rather than direction of preference is the important factor (i.e., yes and no responses, while being in opposite directions, represent the same strength of preference and therefore receive the same score).

In addition to the scaled responses, students were encouraged to state reasons for their preferences. These reasons were classified and, in conjunction with the scaled responses, were coded and transferred to machine scorable forms. Inter-rater and intra-rater agreement checks were made on the scoring process (See results section). The last question of the "What Do You Like?" test section asked the student to imagine himself/herself as a health and welfare worker and to give advice to another person by

indicating what kind of experiences or activities might help him/her prepare for a job in the health and welfare field. (This question was used on a preliminary trial basis. The open-ended responses were classified and coded, but will not be reported in this document.)

3) Student Post Module Questionnaire - What Do You Think? (The Questionnaire is appended to this report).

This questionnaire was administered to students in the experimental group after their completion of the module and its posttest. The questionnaire was designed to measure student perceptions of the module.

The first twenty questions on this questionnaire were forced choice in nature -- the student could either agree or disagree with the statement posed in the stem. The twenty questions covered the following 4 areas:

- perceptions of specific module parts (questions 1-7);
- general understanding and ability to follow directions (questions 8-13);
- implementation or pacing of the module (questions 14-16); and
- perceptions about learning (questions 17-20).

Besides the first twenty questions there were twelve additional questions. Three of these were "check" questions designed to provide some probable indication of scale reliability. The rest of the questions were open-ended and asked the student to supply short answers or recommendations for improving the simulation. Examples of areas covered by these questions include: role(s) played; things liked most about the simulation; things liked least about the simulation; new interests discovered through the simulation, etc. These questions will be summarized and included on the Reviser's Information Summary (RIS).

4) Teacher Questionnaires (The Questionnaires are appended to this report).

Basically, two questionnaires were used for testing this module. The first, the Midway Questionnaire, was completed by teachers approximately half-way through the module. This questionnaire was filled out just prior to a mid-module panel review of the first half of the module. The questionnaire is designed to cover the initial elements of the simulation, i.e., the Introduction to Simulation materials, the Preview, the Preparation Phase, the first initial tasks, and the teacher's overall perceptions up to the midway point. The questions dealt with concerns about technical quality, fit or integration with other sections of the module, appropriateness of recommended time allotments, problems encountered, recommendations for change, etc. The questions were primarily on a five point scale with space for open-ended comments frequently provided.

At the end of the module and prior to the post module panel review, teachers completed the General Module Evaluation. This questionnaire was similar to the Midway Questionnaire, except that its content pertained to the last tasks and summary phase of the module and to the teacher's perceptions across the entire module. It also contained questions dealing with student and teacher background. Generally, it was administered at the post module panel review session. The questionnaire would require about 25-30 minutes to complete.

In conjunction with the two questionnaires just described, two optional forms were provided to teachers. These were the Media Checklist and the Daily Inventory of Perceptions (DIP). The Checklist was simply a form that teachers could use if they so desired to record their feelings about media used in the simulation. The DIP was an open-ended diary form available for those teachers who were willing (or wanted) to keep daily notes about the

simulation.

Data from the two questionnaires and the optional forms, if completed, will be summarized and reported in the Reviser's Information Summary.

5) Teacher Module Panel Review

As suggested above, teachers who participated in the pilot test and taught the module were convened for a mid-module and post-module panel review. For each section of the module, the reviewers were asked to denote the strengths and weaknesses, the classroom solutions applied to overcome weaknesses, and recommendations for revision. The main reasons for the two panels were as follows:

- the panels were a means of obtaining fresher or more recent teacher observations;
- two shorter panels rather than a longer, more tedious panel would tend to reduce teacher fatigue;
- the panels decreased the need for longer questionnaires.

As in the case of the first three modules tested in the Fall of 1973, panel reviews were conducted in accordance with the panel review guidelines generated for the nationwide CCEM project. A member of the panel kept detailed notes and after the panel prepared written panel review reports. These are included in this document and will be summarized on the RIS.

6) Observer Forms (The form is appended to this report)

For this pilot test, observers were utilized to collect additional information about module implementation. Observer data was collected for all schools with the exception of Lake Junior High School. The observers

were women and had or were in the process of receiving the bachelor's degree. Two of the observers also had extensive teaching experience. The forms the observers used were a mixture of checklist and open-ended formats. Three basic areas were covered: media; general comments; and interaction and activities. The observations made were reviewed and collated and are summarized on the RIS.

A. 1. Knowledge Test - Internal Consistency

Internal Consistency (K.R. #21)
By Total Groups and Testing Time
For Total 34 Item Test

Group \ Testing Time	Pretest	N	Posttest	N
Total Experimental Group	.64	30	.53	30
Total Control Group	.67	43	.78	43
Total (Exp. and Cont.) Group	.67	73	.82	73

Interpretations/Comments

As indicated by the table, the knowledge test is moderately reliable when looked at in terms of sub-group test scores. For the total group post-test the reliability is quite high. The total posttest sample contained students with widely differing understandings of the occupational content of the Health and Welfare Module. Hence the high reliability coefficient is an indication that the test items did discriminate or measure that difference in knowledge.

Contrary to what would be expected, the reliability coefficient of the experimental group is less than for their pretest score. Several plausible interpretations are:

1. The small sample size and homogeneity caused by mutual understandings gained by the experimental group may have reduced the range of variability within the group.
2. The module itself contained misconceptions which caused misinterpretation of questions.
3. Some items of tests could have contained misconceptions and/or inconsistencies with the module's content.

The above interpretations are a subset of the possible interpretations. They were provided to help the reviser (and reviewer) of this report in gaining an understanding of how these test results may have occurred.

A. 2. Knowledge Test - Validity

See Reliability Table for upward bounds or estimates of potential validity coefficients. (These would be equivalent to the square root of the reliability coefficients.)

Interpretation/Comments

Although no direct attempt was made to develop strategies or methods for determining validity, certain factors which would contribute to test validity should be kept in mind. First, in test development, care was taken to eliminate items which were not occupationally oriented. Items dealing with trivial detail were omitted. Secondly, several individuals reviewed the drafts and final version of the test. The test was considered to have reasonable face validity.

Other types of validity such as predictive, concurrent, construct, etc., were beyond the scope of this pilot test. For example, if a factor analytic study was attempted in order to determine construct validity, the values derived would be questionable with the sample size used in the pilot test.

A. 3. Knowledge Test - Total Score Results

Group Means and Standard Errors
By Total Groups and Testing Time
for Total 34 Item Test

Group \ Testing Time	Pretest			Posttest		
	Mean	S.E.	N	Mean	S.E.	N
Total Experimental Group	16.7	2.8	30	20.9	2.8	30
Total Control Group	15.4	2.8	43	12.9	2.7	43
Total (Exp. and Contr.) Group	15.9	2.8	73	16.2	2.7	73

Interpretation/Comments

From this table several facts emerge. First, there is a difference in mean scores with the experimental group showing a large pre-posttest gain of 4.2 points, suggesting module impact. Second, the control group's mean scores decreased from pre-posttesting. This might be explained by a decrease of student interest in completing the test a second time. Third, the experimental group posttest summary statistics (not reported in table form) reveal out of 34 possible test items, 8 items (23.5%) were not discriminating as well as is expected of "good" test items. The large gain observed for the 34 item test may have been even larger if these items had worked better.*

*On the other hand, it is possible that the items tested knowledge that most students obtained as a result of participation in the module. The module's success, in effect, may have reduced experimental group variability on these items.

A. 4. Knowledge Test - Subtest Results

Subtest Means and Standard Deviations
By Total Group and Testing Time

Testing Time		Pretest			Posttest		
Group	Sub* Test	Mean	S.D.	N	Mean	S.D.	N
Total Experimental Group	A	8.5	2.8	30	11.7	2.4	30
	B	8.2	2.7	30	9.2	2.5	30
Total Control Group	A	7.9	3.0	43	6.7	3.4	43
	B	7.4	2.4	43	6.1	3.0	43
Total (Experimental and Control Group)	A	8.1	3.0	73	8.8	3.9	73
	B	7.8	2.6	73	7.4	3.2	73

*SubTest A = 17 Responsibility Questions
SubTest B = 17 Process Questions

Interpretation/Comments

In Table A-3 the overall gain in knowledge test scores was depicted. In this table (A-4) the scores are partitioned in accordance with the subtests included in the total test. As indicated in the table, most of the pre-posttest gain is found in the experimental group. Moreover, this gain is predominant in the subtest dealing with responsibility questions. Among the many interpretations possible, several are given below:

- the module primarily delivers information concerning the responsibilities of various health and welfare roles;
- the students were not given adequate information concerning the actual operation of a drug treatment center, therefore limiting learning process information.

As noted, many interpretations are possible. The reviser (and evaluator) should judge the information provided by the subtests in relation to other information collected in the evaluation. For instance, if the subtest results are collaborated by other information sources, there should be a close examination of the question of whether the focus or intent of the module should be more or less directed toward the operational processes involved in running a drug treatment center.

B. 1. Attitude Scale - Reliability

Inter- and Intra-Coder Percentage Agreement for Randomly Selected* Tests (Questions 1-7)

Type of Agreement	Percent Agreement
Inter-Coder	99%
Intra-Coder	96%

*n = 12 test booklets randomly selected from groups tested.

Interpretation/Comments

The figures in the table were devised by a) dividing the total number of disagreements in coding between two coders by the maximum number of responses coded (inter-coder reliability), and b) dividing the total number of disagreements in two sets of codings given by the same coder by the maximum number of responses coded (intra-coder reliability). Very few differences between coders or codings were observed. For questions 1-7 on the education attitude scale, as can readily be seen from the table, there is a high degree of agreement between two independent coders (inter-coder reliability).

Thus, reliability of the scoring for the attitude scale was achieved. (Reliability of the scale itself has not been measured in that the scale consisted of only 7 items. Reliability estimates of such a brief scale with a relatively small sample would not be too meaningful).

B. 2. Attitude Scale - Validity

DATA

NOT

AVAILABLE

Interpretation/Comments

Data regarding the validity of the scale was not collected in the pilot test. The scale, however, was reviewed by staff members who were familiar with the content and goals of the module. Changes were made in accordance with comments they made about the scale. Thus a measure of face validity was achieved. (Also see the discussion of the ANOVA results for the attitude scale, Table G-1).

B. 3. Attitude Scale - Preferences

Means (Strength of Preference)*
by Group and Testing Time
(For Questions 1-6)

Group \ Testing Time	Pretest	Posttest
Experimental	15.3	15.9
Control	15.2	14.9

*There were 6 questions each with scale value of from zero (no response) to a strong preference value of 3 (yes or no). Hence the scale range is zero to 18.

Interpretations/Comments

In terms of strength of preference, it is apparent that the experimental group slightly increased their preference while the control group slightly decreased theirs from pre- to posttesting. Given the very small magnitude of the changes, several conclusions are suggested:

- the module had very little or no appreciable effect on strength of preference;
- the students were knowledgeable about this area and already had pre-formed and thus difficult to change preferences;
- the scale with only 6 questions was not sensitive enough to change.

These three suggested interpretations are not the only ones possible but are offered as three of the most plausible.

4. Attitude Scale - Type of Reason

Combined Frequency and Percent of Job Preference Reasons* by Group and Testing Time For the First Six Questions.

		Pretest		Posttest	
	Reason	f	%	f	%
Experimental Group	1	24	33.0	30	37.0
	2	8	11.1	15	18.5
	3	0	0.0	0	0.0
	4	7	9.7	5	6.2
	5	1	1.4	2	2.5
	6	3	4.2	1	1.2
	7	21	29.2	14	17.3
	8	4	5.5	9	11.1
	9	4	5.5	5	6.2
	10	0	0.0	0	0.0
Control Group	1	74	56.5	67	58.3
	2	8	6.1	3	2.6
	3	0	0.0	0	0.0
	4	4	3.0	6	5.2
	5	3	2.3	4	3.5
	6	2	1.5	5	4.3
	7	10	7.6	10	8.7
	8	18	13.7	15	13.0
	9	12	9.2	5	4.3
	10	0	0.0	0	0.0

*Reasons were classified into ten categories:

1. Enjoyment (liking, fun, interest)
2. Past Experience
3. Financial Reasons
4. Desire to learn new things, new experiences
5. Ability to do or not to.
6. Desire for responsibility
7. Altruistic (desire to help)
8. Repetitious answer
9. Other Reasons
10. Misunderstood Question

Interpretation/Comments

Several factors are apparent from the table. First, there is some pre- to posttest shifting of categories of responses. Students' responses to reason #2, past experience, increased from pre- to posttesting in the experimental group, but decreased in the control group. The implication that can be seen is that the module's activities had an effect on student job preferences. After completing the module, a greater number of students were basing the reasons for occupational preference upon their past experience. Another substantial student preference change occurred in the experimental group's responses to reason #7, altruistic justification. Their responses decreased, probably indicating loss of desire to engage in an activity for the sole purpose of helping people. One possible interpretation is that as a result of participation in the module, the students' preferences shifted away from an idealistic type of reason.

Secondly, there is a large discrepancy between the experimental and control groups with regard to the frequency of response to reason #1. Although this is interesting, it is difficult to postulate a rationale as to why it occurred.

C. 1. Student Questionnaire - Reliability and Validity

Frequency Check of Student Responses Concerning Amount of Information Learned About Jobs From The Simulation by Comparison of Question #17 with Question #21

Question #21: How much did you learn about jobs in this field of work from the simulation?

Question #17: I learned quite a lot about jobs in this field of work.	Very Little	Little	Average	Much	Very Much
Agree	1	1	13	5	7
Disagree	2	0	1	0	0

Interpretation/Comments

The Student Questionnaire was administered to experimental group students after they had completed the module. Since there was only one test administration, the use of a test-retest coefficient was not possible. Furthermore, the questionnaire consists of many different types of questions (including open-ended questions) regarding various aspects of the simulation experience. The meaning of internal consistency coefficients calculated for this type of instrument would be extremely questionable and hence they were not utilized.

To the end of assessing reliability several "check" questions were included in the questionnaire. One set of "check" questions was question #17 and #21. These questions measured the amount of information students felt they learned about occupations in the health and welfare field as a result of participating in the simulation. When questions #17 and 21 are compared, the results show a moderately high degree of consistency in response pattern. Only two students* (out of thirty, 6.7%) were inconsistent in their response pattern. The table to the left depicts these findings.

Validity was basically ascertained by having the writers of the simulation review the instruments and by incorporating their comments and suggestions into the final form. In terms of face validity the instrument was judged to be a reasonable means of assessing

*In reviewing the table it should be noted that question #17 is a dichotomous variable and question #21 is a multichotomous variable, thus, making exact comparisons difficult.

the student's perspectives of the module. Secondly, comparisons between subsets of questionnaire items and achievement data do tend to support the conclusion that the instrument is at least partially valid. As a group, students did well on the achievement tests and reported that the module did answer questions they had about jobs and did provide much information about jobs.

The reviser and evaluator should also keep in mind one other important fact about the student questionnaire. The questionnaire was not designed to evaluate students, but as a means for students to provide the project staff with their opinions of the module as well as their suggestions for revision. Students were informed about the use of the questionnaire. It was hoped that their responses would be open and honest.

C. 2. Student Questionnaire - Results from Questions Dealing with Specific Module Parts (Sample Size = 32)

Question (Response Category)	Agree	Disagree	No Response
1. The preview and the other activities at the beginning helped to prepare me for the simulation.	24*(75%)	6 (18.75%)	2 (6.3%)
2. The role description gave me little information helpful in choosing a role.	13 (40.6%)	15*(46.9%)	4 (12.5%)
3. I selected a role by myself.	21*(65.6%)	11 (34.4%)	0 (0.0%)
4. The teacher helped the class to select roles.	13 (40.6%)	17*(53.2%)	2 (6.3%)

*Positive responses.

Interpretation/Comments

After comparing the results of the entire set of 7 questions, it was found that approximately 68% of all the responses were positive, 26% were negative and 6% were no responses. Summarizing the findings, the students generally felt: 1) the tasks were not too complicated or hard for them to do; 2) the various sections of the module fit well together; 3) the preview and other preparatory activities helped the students; 4) the summary (Task 4) was effective in tying together the module; and 5) the majority selected roles themselves. The revisers should note the inconsistency in the students' evaluation of the role descriptions. Less than 50% of the students felt the role descriptions were helpful in choosing a role.

Table 2. (continued)

Question	Agree	Disagree	No Response
5. Some of the tasks were too complicated or hard for me to do.	5 (15.6%)	26*(81.3%)	1 (3.1%)
6. The summary helped me to "pull things together".	24*(75.0%)	7 (21.9%)	1 (3.1%)
7. The simulation preview, activities and summary fit well together.	26*(81.3%)	4 (12.5%)	2 (6.3%)

*Positive responses

c. 3. Student Questionnaire - Results from Questions Dealing With Student Understanding of Module Materials and Directions (Sample Size = 32)

Question	Agree	Disagree	No Response
8. There were too many forms to fill out with this simulation.	6 (18.8%)	25*(78.1%)	1 (3.1%)
9. The directions in the materials were clear to me.	23*(71.9%)	8 (25.0%)	1 (3.1%)
10. The teacher explained a lot of words.	14 (43.8%)	16*(50.0%)	2 (6.3%)
11. The pretest and posttest were difficult for me.	5 (15.6%)	24*(75.0%)	3 (9.4%)
12. The booklets and resource materials were easy to read.	29*(90.6%)	3 (9.4%)	0 (0.0%)
13. The teacher explained a lot of ideas.	23 (71.9%)	9*(28.1%)	0 (0.0%)

*Positive response.

Interpretation/Comments

Of the student responses dealing with their understanding of module materials and directions, approximately 66% of the responses were positive; 31% were negative; and 4% were without response. All but three students indicated the materials were easy to read. This information is consistant with teacher feedback in that one teacher reported having three students who had much difficulty reading the materials. Therefore, revisers should consider the overall readability of the materials as being appropriate for the given grade level.

On the other hand, the level of student's comprehension of the materials is dependent upon teacher input. Although the majority of students had no difficulty reading the materials, they indicated the teacher explained a "lot of the words" and "a lot of the ideas". It is a strength of the modules that the students were introduced to new vocabulary and concepts. However, a decision needs to be formulated regarding whether the module itself should interpret the vocabulary and concepts for the students or if that is one of the teacher's functions. The revisers could develop a glossary of new terms for the students and/or include a listing of new vocubulary in the teacher guide.

C. 4. Student Questionnaire - Results From Questions Dealing With Implementation of Module

Question	Agree	Disagree	No Response
14. The simulation was too short.	20 (62.5%)	12*(37.5%)	0 (0.0%)
15. Sometimes I had nothing to do.	15 (46.9%)	17*(53.1%)	0 (0.0%)
16. Sometimes I had too many things to do in this role.	8 (25.0%)	24*(75.0%)	0 (0.0%)

*Positive response.

Response to Questions 15 and 16 By Specific Role Played in Simulation

Role	15. Had nothing to do at times. Agree	15. Had nothing to do at times. Disagree	16. Had too much to do at times. Agree	16. Had too much to do at times. Disagree
Psych	0	3	2	1
Director	2	1	0	3
Med. Tech.	2	2	1	3
M.D.	3	1	2	2
Prob. Officer	2	4	1	5
Nurse	2	2	1	3
Caseworker	1	2	0	3
Pharm.	2	1	0	3

Interpretation/Comments

In this section of questions, the majority of students felt the simulation was too short. The module activities tended to provide students with not enough to do at times rather than too much. After cross-tabulating the results of questions 15 and 16 by each specific module role, it becomes apparent that at times students in one role had nothing to do while at other times they had too much to do. It is recommended that revisers study the length of time it should take students to complete each specific activity and determine whether to add and/or eliminate activities for each role.

c. 5. Student Questionnaire - Results from Questions Dealing With Perception of Learning (N = 32)

Question \ Response Category	Agree	Disagree	No Response
17. I learned quite a bit about jobs in this field of work.	29*(90.6%)	3 (9.4%)	0 (0.0%)
18. I learned very little about how to work with other people.	3 (9.4%)	28*(87.5%)	1 (3.1%)
19. The simulation did not help to answer some of the questions I have about jobs.	12 (37.5%)	20*(62.5%)	0 (0.0%)
20. I enjoyed working with other students during the simulation.	31*(96.9%)	0 (0.0%)	1 (3.1%)

*Positive responses.

Interpretation/Comments

Across the four questions a positive trend in student responses is observed. Of a maximum total of 128 responses approximately 84% of the responses were in the positive category. Apparently students felt that the module provided them with much information either about jobs or how to work with other people. All students responding to question #20 enjoyed working with other students in the module.

The results from question #19 in the table are not nearly as strong as those from the other questions. Students were considerably more divided in their opinion regarding this item stem. This information may have utility for module revision but it is difficult to relate it to specific points in the module.

C. 6. Student Questionnaire - Results From Other Important Questions (N = 32)

Question	Very Little	Little	An Average Amount	Much	Very Much
21. How much did you learn about H & W jobs from the simulation?	3(9.4%)	1(3.1%)	14(43.8%)	5(15.6%)	8(25%)
22. How much trouble did you have knowing what to do next in the simulation?	6(18.8%)	11(34.4%)	12(37.5%)	2(3.2%)	0(0.0%)

Question	More Interested	Less Interested	Not ever Interested	No change in interest	No Response
29. Compared to former feelings how do you feel about H & W jobs?	22(68.8%)	2(6.2%)	2(6.2%)	4(12.5%)	2(6.2%)

Interpretation/Comments

The results reveal that the majority of the students felt they had learned at least an average amount about Health and Welfare jobs (N = 27, 84.4%). Over half (N = 17, 53.2%) of the students had little or very little trouble in understanding what they were to do chronologically in the simulation. The most important finding, however, was that the module created a positive attitudinal change in the students. Namely, when compared to past feelings, 68.8% of the students felt they were more interested in health and welfare jobs while only two students (6.2%) felt they were less interested.

III. RESULTS

C. 7. Student Questionnaire - Collated Open-Ended Responses to Questions from "What Do You Think?"

Question #25
Name some of the things you liked most and liked least about the roles. (The most frequent responses are listed.)

Liked Most	Liked Least
Working with microscope and lab equipment	Filling out forms, too much paperwork
Experimenting	Reading the manuals
Diagnosing medical cases	Having the tests at the beginning and end.
Working with people	It was too short, couldn't finish work.
Helping people	Too little to do at times
Interviewing for jobs	
Learning about jobs that were interesting	
Being able to simulate and talk at a city council meeting.	
Reading and working on the case studies	
It was fun; liked playing roles	
It wasn't much work, or too complicated.	

Question #28
Name some of the materials you liked most and liked least. (Listed in order of preference.)

Liked Most	Liked Least
Booklets	Filmstrips
Tape of case studies	Booklets
Filmstrips	Tests and forms
Video tape	
Slides for microscope	
Drugs, pills, acid	
Resource materials	

C. 7. (continued)

Question #31
Name some of the things you liked most and liked least about the simulation.

Liked Most	Liked Least
I liked it all	Reading the booklets
Solving problems of others, looking at and working out solutions for the cases.	Filmstrips
Learning about different occupations, i.e., psychologist.	Too short
Working with others	Filling out forms
Doing the things you would like to be	Not enough information on center and cases.
Learning how a center works	Not having anything to do
	Tests
	Working alone
	Staff meetings unorganized

Question #32
Student recommendations to improve the simulation:

- Extend the time length of the simulation's Tasks 3 and 4. There could be a second city council meeting in Task 4. More time should have been given for students to work on case studies in Task 3.
- Create additional case studies, letters.
- Provide more information about the individual cases in the simulation. Include more information about his/her family and biographic data.
- Provide more information about the center's operation, location, zoning regulations, layout, size, percentage of successful cases, and facilities available.
- Each role should have been clarified more and not left up to the director. (Each role should have been given definite boundaries as well as definite overlaps.)
- The use of the equipment (microscope) should have been explained.
- Make the booklets easier to understand.
- Improve the quality of the filmstrip.
- Have guest speakers from each role visit the class.
- Reduce the number of forms or tests to complete.

D. 1. Midway Questionnaire - Reliability and Validity and General Module Evaluation

DATA

NOT

AVAILABLE

Interpretation/Comments

For these questionnaires, the variable nature of the question format and the question content make it most difficult to determine the reliability of the questionnaires. Further, even if a reliability coefficient could be calculated, the small sample size (n = 4 experimental teachers) would render the coefficients meaningless.

Validity was determined by having product developers review the questionnaires. The developers considered the instruments to be a viable means of collecting teacher observations especially with regard to problems incurred in implementing the module. Face validity seemed high. The developers also felt that questionnaires were short enough to promote teacher response.

Additional evidence of validity will be seen in the degree to which various sources of data, including the teacher questionnaires, tend to corroborate each other.

D. II. Midway Questionnaires and General Module Evaluation - Composite Results

COMPOSITE

RESULTS

AVAILABLE

UPON

REQUEST

FROM

THE

Occupational Exploration
Project Evaluation Staff

Interpretation/Comments

Due to the small sample size and the moderately large number of open-ended questions, tables will not be included in this report. A composite set of teacher responses on the questionnaires will be maintained by OEP evaluation staff. These composite responses will be available upon request.

Several factors should be kept in mind when reviewing the composite results. First, there were only 4 teachers who were facilitating or managing experimental group experiences. In many cases only two or three teachers responded to a question. Second, it would seem that a fair amount of faith can be placed on the truthfulness of teacher responses. The questionnaires were designed to evaluate the program not to evaluate teachers. Teachers were informed on several occasions of the intent of the instruments.

Lastly, the responses on the instruments were summarized and only the main thoughts or ideas were stated on the Reviser's Information Summary. These summarizations should be studied with other sources of data in view.

E. 1. Midway and Post Module Panel Reviews - Reliability and Validity

DATA

NOT

AVAILABLE

Interpretation/Comments

The panel review procedure and reporting format was generated from similar efforts undertaken for the School Based Component of the Comprehensive Career Education Model (CCEM) in 1973. CCEM Project Staff felt that panel reviews provided an important source of data for revising curriculum materials. The process is purposely designed as an open-ended one to insure that teachers have the opportunity to freely discuss any concerns or comments they have about the module. Reliability in this instance is difficult to assess. It should be noted, however, that, teachers were frequently asked during the review about the extent to which they agreed upon particular points. Thus, the panel reports, in many cases, represent a convergence of teacher perspectives or opinions.

Validity is judged by the degree to which the revisers and evaluators will find the data collected from the panels useful for illuminating strengths and weaknesses within the module and helpful in determining revisions to be made in the module. Validity judgments will have to come sometime after the generation of this report.

Due to the open-ended nature of the panel review procedure, Tables E-II and E-III are simply copies of the actual panel reviews. The reports, which are summaries of the panel discussions, were written by OEP staff. (No interpretation is felt to be necessary for the panel review.) For the Reviser's Information Summary Sheet (RISS) the main ideas of the panel reviews have been abstracted and placed in the appropriate cells of the RISS.

III. RESULTS*

E. II - Mid Module Panel Review

Title of Module: Health & Welfare

L.E.A.: Jefferson County and Denver County, Colorado

Panel Leader: John Radloff

Panelists: Mary Ellen Speakhals, Wheat Ridge Jr.; Bud Moran, Lake Jr.; Judith Jamison, Hamilton Jr.; (Missing - Paul Greenfield, Alameda Jr.)

Observer Participants: Sandra Pritz, C.V.T.E.

Date(s) Panel Met: 4/23/74

Number of Hours: 2

*Interpretation has not been provided.

TITLE	STRENGTHS	WEAKNESSES	CLASSROOM SOLUTIONS	SUGGESTED REVISION	TEACHERS CONCURRING
Pre-Test		- Some words too difficult - Took more than one period.			- 1 - 1
Introduction to Simulation		- Students did not like drawings - Too short	- Used preview same day	- Use photographs or caricatures	- 2 - 2
	- Students preferred the booklet. Booklets superior to slide/tape				- 2
	- content of introduction was good			- Intro. should demonstrate a classroom simulation	- 3
Preview		- Preview gave impression that simulation was to be all desk work	- Teacher Assistance	- Should give layout and equipment of health & drug center. (Floor plan, etc.)	- 1
		- Too sterile.	- None	- Use actual photographs	- 2
		- Not enough info. about jobs.	- None	- Add more detail about simulation job descriptions.	- 3
Preparation		- Overlay did not match paper size	- Had to assist students	- Number overlay or make same size as job preference form	- 2
Booklet	- Very Good				- 3
Job Preference Form	- Very Good	- Pupils did not catch on well to form	- Teacher assistance		- 2 - 1

TITLE	STRENGTHS	WEAKNESSES	CLASSROOM SOLUTIONS	SUGGESTED REVISION	TEACHERS CONCURRIN
Task 1 Video Tape		- Poor candidate was very obvious		- Could be omitted	- 2
	- Very good-interesting				- 1
		- Application, forms very long & detailed. Pupils bogged down (salary, previous work experience)	- Skipped parts of application	- Eliminate some items to be completed - use full form as an example	- 2
	- Role playing was very interesting		- Allowed pupils to role play interviews prior to real interview	- Add role playing practice	- 3
	- Director prepared questions in advance from applications				- 2
		- Students should be warned that applications will be used during interviews			- 2
Task 2		- Director too authoritative			- 1
	- Good -- operated as intended				- 2
		- Experiment in Task 3 should be related to cases in Task 2		- Integrate Tasks	- 3
Task 3		- Pharmacologist Med. Tech. role book not related specifically to cases		- Integrate tasks	- 2
		- Too large a range in task lengths for task 3	- Made up work for early finishers	- Provide optional extra tasks for early finishers	- 3
	- Pupils able to really get into interaction & consultation activities				- 2

TITLE	STRENGTHS	WEAKNESSES	ASSUMED SOLUTIONS	SUGGESTED REVISION	NUMBER CONCURRING
Task 3 (continued)	- Letters were very good				- 2
		- Pupils questioned the probation officer working with job opportunities.			- 1
General	- Students really get caught up in the cases				- 3
	- Students really enjoyed working together				- 2
		- Teacher's manual gave no indication that a microscope would be needed		- Add warning to teacher	- 2
		- Pupils who did not have a role packet felt cheated.		- Add packet for everyone	- 2
		- Sex is wrong on one case history		- Get it right!	
		- Nurses medical forms very difficult. All necessary information is not present, i.e., referring doctor, etc.		- All information needed for medical forms be provided someplace.	- 2
Overall	- Pupils so caught up in simulation they verbalized many bits of personal information, i.e., drug or alcohol problems				- 2

III. RESULTS

E. II - Post Module Panel Review

Title of Module: Health & Welfare - "Drug Treatment Center"

L.E.A.: Jefferson County and Denver County, Colorado

Panel Leader: John Radloff

Panelists: Judith Jamison, Hamilton Jr.; Bud Moran, Lake Jr.; Mary Ellen Speckhals, Wheat Ridge Jr.

Observer Participants: None

Date(s) Panel Met: 5/9/74

Number of Hours: 1½

*Interpretation has not been provided.

TITLE	STRENGTHS	WEAKNESSES	CLASSROOM SOLUTIONS	SUGGESTED REVISION	NUMBER CONCURRING
Preview		- Too little information for pharmacologist & medical technician	- None	- Provide more explanation about those jobs	- 2
Task 3				- Add optional tasks for pharmacologist & medical technician	- 3
		- Had difficulty operating the microscope	- Called in science teacher	- Add instruction sheet for use of microscopes	- 2
		- The explanation of which slide to use as reference was not clear.	- None	- Improve explanation	- 3
				- Use more exciting blood slides (i.e., sickle cell slide, etc.)	- 3
		- Probation officer's form was difficult (use of legal forms & terminology)	- Teacher assistance	- Simplify form and provide better information	- 3
	- Extra items were very good (telephone message and letter of reply, etc.)			- Consider adding other items of a similar nature.	- 3
Task 4		- Pupils wondered if an attorney would not be called in regarding some of the problems		- Add attorney role?	- 2
		- Pupils wondered if center was violating zoning or sign code	- Teachers made assumptions	- Add information to satisfy student curiosity about legal standing of the center	- 3
	- Most interesting task of all. Made spirited defense of the center			- Add one preparation day if outside group is to come in and act as city council	- 2

TITLE	STRENGTHS	WEAKNESSES	CLASSROOM SOLUTIONS	SUGGESTED REVISION	TEACHERS CONCURRIN
Task 4 (continued)		- Students unenthusiastic did not want to make a presentation to others.			- 1
	- When people playing the city council decided to table the motion until a week later - the pupils wanted to reconvene the following week.		- Discouraged prolonging simulation.	- Provide a mini-summary of simulation for those outsiders who are playing the role of the council members.	- 2
General		- Too little for pharmacologist to do. Same for social worker.	- Encouraged them to assist others.	- Increase involvement of these roles.	- 3
		- Absenteeism detracts significantly from the success of the simulation.			- 2
		- Periods of sterility in module.		- Add options for obtaining resource speakers, making visits to a clinic, etc.	- 3
	- Pupil confidence and self-direction build as they progress through the module.				- 3
		- Pupils are not adequately cued as to when staff meetings would be valuable.	- Teacher suggested that the director call a meeting.	- Provide more criteria for use of staff meetings. Perhaps even pre-program a meeting or two.	- 2

F. 1. Knowledge Test - Analysis of Variance Table For Total Test Scores

SUMMARY TABLE

Source	df	SS	MS	F
Between Subjects	72			
A	3	457.12	152.37	4.56**
B	1	801.03	801.03	24.00**
AB	3	90.66	30.22	.91
D/AB	65	2169.70	33.38	
Within Subjects	73			
C	1	33.13	33.13	2.76
AC	3	41.78	31.93	1.16
BC	1	411.54	411.54	34.26**
ABC	3	13.20	4.40	.37
CD/AB	65	780.71	12.01	
TOTAL	145	4798.87		

** p. $\leq$ .01

Where A = School
B = Treatment
C = Pre- Posttesting
D = Subjects

Interpretation/Comments

As described in the experimental design section of the report, the key term to be observed is the BC interaction between the treatment variable and the time variable. If the experimental group shows high posttest gains and a BC interaction occurs, then most likely the module had an impact on student career knowledge in the health and welfare field. Table A-4 confirms descriptively that experimental posttest gains and BC interaction did take place as expected. Table F reveals that the BC interaction is significant at the .01 level.

Other terms in the table are significant also. However, they are not a major concern in this study and do not detract from the key significant difference that was obtained.

G. 1. Attitude Scale - Analysis of Variance for Strength of Preference Scores (Questions 1-6)

SUMMARY TABLE*

Source	df	SS	MS	F
Between Subjects	72			
A	3	43.25	14.42	1.14
B	1	18.02	18.02	1.43
AB	3	9.51	3.17	0.25
D/AB	65	821.30	12.63	
Within Subjects	73			
C	1	11.57	11.57	1.05
AC	3	38.38	12.79	1.16
BC	1	14.64	14.64	1.33
ABC	3	12.70	4.23	0.38
CD/AB	65	716.41	11.02	
TOTAL	145	3371.56		

*No significant results $p \leq .20$

Where A = School
B = Treatment
C = Pre- Posttesting
D = Subjects

Interpretation/Comments

An examination of Table G. 1. reveals no significant difference with respect to the BC interaction. This could be vewed as an indication that the program does not affect student preference judgments to any sizable degree, e.g., students have a given degree of preference for the related jobs which are not conducive to change by the program. However, the program may still have equipped students with an expanded data base through which these preferences were expressed. [Note also that yes and no responses receive the same scale value of 3 indicating the same strength of preference (See Section II. D.2).]

In Table B-5, it was noted that some changes in student preferences did occur; however, the changes were not large enough to produce statistically significant differences.

IV. Reviser's Information Summary (RIS)

A. Description of the Summary

The Reviser's Information Summary was developed for the purpose of assisting revisers to assimilate information collected during the pilot test of a module. To accomplish this, information from each source available was first reviewed and then only major thrusts or ideas from the source were summarized. (These key thrusts or ideas were determined by the judgment of the authors of this evaluation report.) The summary was then transferred to the appropriate location on the large sheets which constitute the RIS. Lastly, each column was studied and trends were drawn and so recorded at the bottom of the sheet. In ascertaining the trends the authors used their familiarity with data, the module, and the data collected.

In general there will be one Reviser's Information Summary sheet per part of the module and one-two sheets covering the overall nature of the module. On sheets which pertain to module parts, only some of the data sources provided information pertinent to that part. Hence, the sheets do have some blanks or missing data cells. The reviser should exercise extreme care in interpreting the information on the sheets and should always keep in mind that comments on the sheets represent only a summary of key points. In addition, it sometimes was most difficult to determine a trend in the information obtained.

B. Use of the RIS

One way the reviser might use the RIS is as follows:

1. Read the module -- become thoroughly familiar with it;

2. Read the first part of this report (Section I and II) thoroughly. Skim the results compiled in tables (Section III, parts A,B,C,D, and E.) Read section E-2 and E-3, the teacher panel review reports, closely;

3. Read and study the Reviser's Information Summary. (Consult original data sources, if necessary.); and

4. Generate a set of revision specifications based upon knowledge of the module, the Reviser's Information Summary, project developmental criteria and other information, if appropriate.

C. REVISER'S INFORMATION

SUMMARY

DATA SOURCE	STRENGTHS	WEAKNESSES
STUDENT TESTS	The experimental group participants gained an average of 4.2 points from pre- to post-testing on the 34 item knowledge test. This indicates that the module was effective in providing occupational information.	The experimental students increased their score of responsibility questions 3.2 poi mean process items score by 1.0 point.
STUDENT QUESTION-NAIRES	There were strong positive responses to the following questions as indicated by the given percentages: Yes Directions were clear 71.9% Tests were not difficult 75.0% Booklets were easy to read 90.6% Learned quite a bit about jobs in this field 90.6% Enjoyed working with other students 96.9% Learned at least an average amount about jobs in this field of work 84.4% Discovered new interests by participation in simulation 76.7% More interested now in health and welfare jobs 68.8% The tasks were not too hard for me to do 81.3% The simulation preview, activities, and summary fit well together 81.3% Some of the things students indicated liking most about the role(s) were: working with lab equipment, experimenting, helping people, being able to work with others, and applying and interviewing for jobs.	There were mixed responses to the followi by the given percentages: Teachers explained a lot of the words Teachers explained a lot of the idea The simulation was too short Sometimes I had nothing to do Some of the things students indicated li were: filling out forms, reading the ma a time period to complete tasks or havin times.
REVIEW PANELS	The reviewers felt that generally pupil confidence and self-direction built as they progressed through the module. The students were so absorbed by the simulation's activities the teachers noted they verbalized many bits of personal information.	Two teachers indicated that student abse significantly from the success of the si pharmacologist and the social worker sho teachers noted periods of "sterility" in for other activities. They also felt st to when to call additional staff meeting
OBSERVER FORMS	Students interested in module activities.	The module's success depends upon the le director.

ll Considerations	RECOMMENDATIONS FOR REVISION
mean pre-posttest gain nts, but increased the	
ng questions indicated Yes No 43.8% 50% 71.9% 28.1% 62.5% 37.5% 46.9% 53.1% king least about the roles uals, having too short too little to do at	Student recommendations to improve the simulation: - Extend the time length of the simulation's Tasks 3 and 4. There could be a second city council meeting in Task 4. More time should have been given for students to work on case studies in in Task 3. - Create additional case studies, letters. - Provide more information about the individual cases in the simulation. Include more information about his/her family and biographic data. - Provide more information about the center's operation, location, zoning regulations, layout, size, percentage of successful cases, and facilities available. - Each role should have been clarified more and not left up to the director. (Each role should have been given definite boundaries as well as definite overlaps.) - The use of the equipment (microscope) should have been explained. - Make the booklets easier to understand. - Improve the quality of the filmstrip. - Have guest speakers from each role visit the class. - Reduce the number of forms or tests to complete.
teesism detracts ulation. The roles of the ld be expanded. The the module and the need dents could be "cued" as within the simulation.	Increase involvement of roles. Add options for obtaining resources, speakers, field trips to drug clinics. Develop criteria for holding staff meetings. Include more staff meetings.
adership abilities of the	

DATA SOURCE	STRENGTHS	WEAKNESSES
TEACHER QUESTIONNAIRES	The teachers rated the overall quality of the module as good. They felt (n = 4) the students learned much about the process of simulation and at least an average amount about health and welfare occupations. All but one teacher felt the module reinforced and helped to build the student's ability to make decisions. They felt the students were receptive to both the simulation and its content. All teachers indicated they would like to use the simulation again with minor modifications and would recommend its use to other teachers. Two teachers felt the simulation improved the working relationship between teacher and student. They felt the main ideas were presented with logical consistency. Most of the time (n = 3), and some of the time (n = 1), the materials stimulated the interest of the students. Most of the time (n = 3) and some of the time (n = 2) students were able to understand the concepts. Generally, the directions were clear for students to understand. Three teachers felt that generally the vocabulary was consistent with student maturation level while one felt that not much was. There was also a discrepancy in noting a change in student interest or motivation: increased (n = 1), decreased (n = 1), constant (n = 1), and somewhat changed (n = 1). Two teachers felt the "best materials" of the module was Task 3 and one indicated Task 4.	All teachers felt there were students th working in small self-directed groups as identified these students: 1) chronic a and 3) students rejected by others. The teers would be most appropriate. When a materials" in the module, each of the fo one teacher: the video tape "Interviewi the job application form, and the job ap ers felt the reading level of the materi problems". In one class, three students reading level.
TRENDS	In general, the module was well received by both students and teachers as indicated by: 1. Student gains in cognitive knowledge. 2. Teacher observations that students gained in both confidence and self-direction as students progressed through the module. 3. The ability of students and teachers to follow the directions in the simulation and the sequence of tasks 4. The strong positive trends that emerged from the questionnaires (See column above).	The following major deficiencies are not 1. There is need for greater informatio roles and provides more details abou 2. In general, the simulation was too s student comments. 3. In some roles, the students generall opposed to too much. 4. Test results tend to indicate that m the occupational responsibility of r simulation as opposed to the process center. This may or may not be a we objectives set for the revised simul however, teachers seemed to be sugge placed on the process dimension. 5. Generally, the readability of the ma for the students at this age level; that the teachers had to explain "a lot of the ideas" which were present Table C-3 for a more detailed explan 6. Teachers and observers noted that th depended upon the leadership ability felt there were some students that wo in small self-directed groups.

ll Considerations	RECOMMENDATIONS FOR REVISION
t would have difficulty in this simulation. They sentees, 2) poor readers, indicated student volunked to describe the "worst llowing were mentioned by g", the audio-film strips, citude form. Three teachals presented "some had "more trouble" with the	Teacher recommendations include: Develop additional optional assignments for those completing the module's tasks. Strengthen or provide more options for Task 4. Possibly include the role(s) of assistant director and legal representative. Build in the role of "mock" citizens.
ed in the module: which clarifies the the drug treatment center. nort as evidenced by had too little to do as ore emphasis was placed on oles presented in the of operation of the kness, depending upon the ation. In the review panel, sting that more emphasis be terials seemed well suited however, students stated lot of words" and "a ed in the simulation (See ation.) e strength of the module of the director. Teachers uld have difficulty working	1. The module needs to delineate specific responsibilities of each role instead of letting the director decide. This would reduce student confusion over who is responsible for given activities, including specific role descriptions. 2. Study the length of time it should take students to complete each specific activity and determine whether to add/or eliminate activities for each role, making certain each role is meaningfully integrated with at least one "paper case". 3. Careful consideration should be given to the process of selecting the director since the module's success is dependent upon his leadership abilities. 4. Several suggestions to improve the students' comprehension of the materials: - To include a student glossary containing new vocabulary; - To improve conceptual understanding, add more explanations within booklets. - To provide teachers with more ideas and suggestions for working with students. 5. Another suggestion for improving the module is: - Given teacher comments about student interest in the materials, the reviser(s) should pay special attention to the intended target audience(s) for these materials. 6. Other suggestions for revisions are found on the Reviser's Summary Sheets pertaining to specific parts of the module.

DATA SOURCE	STRENGTHS	WEAKNESSE
STUDENT QUESTIONNAIRES	Seventy-five percent of the students felt that the introduction helped to prepare them for the simulation.	Some students felt the filmstrips should slides but a live type of film.
TEACHER QUESTIONNAIRES	The teachers felt the booklets were better prepared than the slide-tape, "Introduction To Simulation".	
TEACHER PANELS	The teachers felt the content of the introduction to simulation tape was good, but the students preferred the booklets to the slide-tape since they felt they were superior.	Two teachers felt the introduction itself students did not like the drawings in the
OBSERVER FORM		
TRENDS	From the incremental testing of materials in Columbus, Ohio* and the pilot-testing in Colorado (of several modules), it was found that generally the students did understand the concepts and vocabulary presented in the introduction. Generally, both teachers and students in Colorado rated the overall quality of the booklets superior to that of the slide-tape presentation. A slightly different viewpoint was observed in the incremental testing in Columbus in which the joint use of slides and booklets seemed to be emphasized.	The teachers' comments from this pilot-te of the introduction and the students' di in the slide-tapes were consistent with uses of the materials (See footnote on b Other data sources* have revealed that: seem to be as motivating as a first activ - the materials did not emphasize or

*Incremental testing, Columbus, Ohio and/or data collected from the testing of other modules.

S	RECOMMENDATIONS FOR REVISION
not have been cartoon-	_____
_____	_____
was too short. The slide-tapes.	_____
_____	_____
st concerning the shortness slike for the illustrations lata collected from other ttom of page*). the introduction did not vity should be; repeat key ideas enough.	From other data sources*, it is suggested that: The key ideas be repeated more than once; The motivational level can be increased by making the simulation more an active than a passive experience; The drawings and illustrations be improved (although specific slide-frames have not been identified). Evaluation note: In working on the introduction, the reviser also took into account the integration of the introduction with the rest of the module.

DATA SOURCE	STRENGTHS	Health & Welfare WEAKNESSES
STUDENT QUESTIONNAIRES	Seventy-five percent of the students felt that the preview helped to prepare them for the simulation.	Some students felt the filmstrips should slides, but a live type of film.
TEACHER QUESTIONNAIRES	The preview did motivate the students, but to varying degrees in each class. Two classes were very interested in the module and the different occupations it introduced to them.	Two classes felt insufficient information center itself (i.e., floor plan, faciliti felt the wording of the slides as "cartoo
TEACHER PANELS	———	———
OBSERVER FORM	Students were interested in simulation after viewing the slide-tape presentation. One student asked if a visit to the drug treatment center would culminate the unit.	Two teachers presented both parts of the ment center in the same class period whi them on consecutive days. Evaluator's comment: the teacher's guid between the two parts of the preview to slide tape. The slide shows are in sepa but the two are recorded consecutively o
TRENDS	The Preview was moderately successful in motivating students to participate in the simulation as indicated by teacher and student comments.	Clear directions on how to present the m the teacher. Teachers also pointed out that the Previ present enough information about the dru jobs introduced in the simulation.

:Preview	RECOMMENDATIONS FOR REVISION
not have been cartoon-	———
was presented on the drug es available). One class ns" was juvenile.	———
———	The film strip should use photographs or caricatures as opposed to representative drawings. The Preview should demonstrate a classroom simulation showing layout and equipment of drug centers (include floor plan). Add more detailed information concerning the simulation's job descriptions.
Preview to the drug treat- e two teachers presented does not distinguish he drug treatment center rate carousel slide trays, n the same tape.	———
aterials are not given to w apparently did not g center itself or about	Evaluator's comment: Revise the instructions to the teacher for the Preview of materials. More information could be added concerning the center and descriptions of jobs introduced in the module. Consider the use of photographs instead of illustrations in the filmstrip, e.g., photographs showing people performing job functions.

DATA SOURCE	STRENGTHS	Health & Welfare: WEAKNESSES
STUDENT QUESTIONNAIRES	———	The role descriptions gave little informa a role. Yes - 40.6% No - 46.7%
TEACHER QUESTIONNAIRES	Generally the technical quality of the illustrations of the booklets was considered to be high. The teachers felt that the preparation section fit well (flowed) with the module's preview. The information provided for student role selection was adequate; however, three teachers indicated students had some difficulty with role selection.	The overlay was inaccurate for the job ap had difficulty with student role selectio group wanted to be the director.
TEACHER PANELS	The teachers felt the booklets and the job aptitude and preference forms were very good as a means of helping students select and get into roles.	The overlay to the job aptitude form did class; students did not catch on well to
OBSERVER FORMS	Students had fun with the hypothetical aspects of applying for a job. The students enjoyed filling out job applications.	Two teachers commented that the job aptit to use. Two classes had to redo their jo overlay did not correspond correctly to
TRENDS	1. From both the perspective of teachers and observers, the booklets and job preference forms seemed to be a good mechanism for getting students into roles. The observers even commented on the fun students had in filling out applications. 2. Teachers considered the preparation section to be well-integrated into the module. 3. The technical quality of illustrations in the booklets was rated high.	1. The overlays for the job preference match the preference form. (Althoug the evaluators were unable to locate closely look at the problem.) 2. Three teachers indicated some studen selection and student responses reve divided in opinion concerning the am in the role descriptions.

Preparation	RECOMMENDATIONS FOR REVISION
tion helpful in choosing	
titude test. One class n, since no one in the	
not properly match in one the form.	Number overlay or make certain it is the same size as the job preference form.
ude overlay was difficult b preferences since the heir answer sheet.	Redo the profile sheets making certain the overlay corresponds correctly to the job preferences.
orms did not properly it should be noted that an overlay to more s had difficulty with role aled that the students were unt of information provided	The teachers and observers both suggested that the overlays be redone.

DATA SOURCE	STRENGTHS	WEAKNESSES
STUDENT QUESTIONNAIRES	———	———
TEACHER QUESTIONNAIRES	All teachers felt that Task 1 had flowed well from the Preparation section. The teachers indicated that the students had a high understanding of the task directions and materials. Three teachers stated the recommended time for the task was adequate, while one teacher felt more time was needed. The teachers disagreed to the extent the materials were appropriate to the maturation level of the students; but all felt the materials were at least somewhat appropriate.	Two teachers felt the job application was too difficult. One teacher felt the inte her class; however, the observer of her c
TEACHER PANELS	The teachers felt the role playing was very interesting. The interview worked well when the director prepared questions in advance from the students' applications.	In the video tape "Interviewing", the poo The job application forms are too long ar The students were bogged down by the sala perience sections. Students should be warned that the applic the interviews.
OBSERVER FORMS	In two classes, the directors did an excellent job of interviewing for staff positions.	At one school, the teacher took over the viewed the students. There was difficulty obtaining the video One teacher indicated the job applicatio fill in. At one school, students did not read the ing. The observers noted that some stud others were being interviewed by the dir
TRENDS	1. Task 1 was well integrated into the simulation. In two classes, the directors did an excellent job, resulting in the task being implemented as specified. 2. Generally, the time seemed to be adequate and all of the materials were at least somewhat appropriate to the maturational level of the students.	1. Several teachers felt that the form for the students to complete. They much time with the salary and previo of the application. 2. Students should have advance knowled that they are completing will be use positions in the drug treatment cent 3. Several key factors emerged with reg - the poor candidate was too obvious - the videotape equipment may be dif schools; and - students had nothing to do and som were interviewing.

: Task 1	RECOMMENDATIONS FOR REVISION
—	—
either too complex or rview didn't work well in lass felt it did.	—
r candidate was too obvious. d detailed. ry and previous work ex- ations will be used during	Video tape "Interviewing" could be omitted. Eliminate some items in job application. Add role playing practice activities. Students should be warned that job applications will be used during interviews.
director's role and inter- tape machine in one school. form was too involved to handbook before interview- nts became bored while ector.	—
was too long and complex cited students spending too s work experience sections ge that the applications during the interviews for er. ard to interviewing: on the videotape; ficult to obtain in some became bored while others	1. Eliminate some items on the job application form. 2. Inform students in advance that applications will be used during interviews. 3. After considering the comments in the weaknesses section, a decision needs to formulated to determine whether or not the videotape, "Interviewing" should still be included in the module. In light of possible difficulties in obtaining equipment, other alternatives should be examined. 4. Add role playing practice activities. Evaluator's Recommendations: 5. Since some became bored during the interviewing, the following alternatives are suggested: - provide director with a structured interview schedule; - use the first several interviews as a means for other students to learn about interpersonal relationships between interviewer and interviewee. Have students observe and then discuss the strengths and weaknesses of the first several interviews.

DATA SOURCE	STRENGTHS	WEAKNESSES
STUDENT QUESTIONNAIRES	_____	_____
TEACHER QUESTIONNAIRES	_____	One teacher indicated that in her class t cases to the staff members.
TEACHER PANELS	Generally, the teachers felt the task was "good" and operated as intended.	One teacher commented that the director authoritatively.
OBSERVER FORMS	In two classes the director was very capable and ran the staff meeting smoothly.	The success of this task is dependent up director. In one class, the director wa the group activity which resulted in havi group.
TRENDS	In general, the task seemed to work well. As noted by the observer, this may be a function of the skill of the student who is in the role of the director of the drug treatment center.	To reiterate, the success of the acti a function of the center director. work out well in his/her role then t smoothly. Also, there may be some p the procedures for assigning paper c

: Task 2	RECOMMENDATIONS FOR REVISION
___	_____
hey had trouble assigning	_____
ole was played too	_____
n the abilities of the uncertain of how to lead ng the teacher direct the	_____
vity is to a high degree f the director does not e activity does not proceed oblem or difficulty with ses.	Evaluator's Recommendation Few, if any, provisions were made to assist the director in assigning paper cases. (There are however, some suggestions in the teacher's guide.) Perhaps these suggestions should be made available to the director.

DATA SOURCE	STRENGTHS	WEAKNESSES
STUDENT QUESTIONNAIRE	———	The probation officer needs more things t Need to add more case studies and more in studies. The use of the microscope should have bee Roles should have been clarified more.
TEACHER QUESTIONNAIRE	Generally, the teachers felt the recommended time for the task was appropriate. They differed to the extent the maturational level of the materials was appropriate for the students; but all teachers felt the materials were at least somewhat appropriate. They indicated that the flow of tasks with each other was generally good. Three teachers felt their class had at least a "medium" understanding of the task directions and materials.	The teachers felt that the medical techni cologist's role and experiments should be cases and integrated with other task role pharmacologist's, medical technician's, a required longer to complete than others. medical doctor's, pharmacologist's, and p have enough activity.
TEACHER PANELS	Pupils able to get into interaction and consultation activities. The teachers felt the "extra items" in the task were very good. (i.e., telephone messages, letters.)	The teachers indicated that the pharmacol technician's roles were not related to ca one class questioned why the probation of opportunities. In two classes, the stude operating the microscope. The teacher's that a microscope would be needed. In th role, it was unclear as to which slide(s) probation officer's forms and the nurse's difficult and complex. Not all the neces present for the nurse (i.e., referring ca Mary on the case study form is incorrect. pupils who did not receive a role packet the length of time to complete separate r some students completed their tasks much had nothing to do.
OBSERVER FORMS	———	The observers related the following probl the probation officer were too complex fo microscope was a problem; the nurse didn' with the information in the letter about wait for others to finish tasks before th the medical technician felt the slides we
TRENDS	1. Generally, the task was felt by teachers to be somewhat or fully appropriate for the maturational level of the students. (Students were able to interact with each other when working on "cases".) 2. Teacher felt that understanding of the task directions and materials was adequate. 3. Extra items contained in the role packets seemed to work well. Perhaps more should be included.	1. At times some students had too much t little to do. The pacing of the indi seem to be well integrated. 2. As indicated above, there are many sp dividual booklets and role packets. fully read the column. 3. Role clarity appears to be a problem. roles not well defined, their relatio the paper cases included in the simul

	RECOMMENDATIONS FOR REVISION
o do. formation to existing case n explained.	
cian's and the pharma- more relevant to the s. In one class, the nd social worker's roles One teacher stated the sychiatrist's roles did not	Additional optional activities should be developed and provided for students in roles to avoid "lag time" (activities could vary in complexity to account for different ability and interest levels). (See student results in Table C. 4.)
ogist's and medical se studies. The pupils in ficer was working with job nts had difficulty manual did not indicate e medical technologist's to use for what. The forms were felt to be too sary information was se to doctor). The sex of General comments were: felt cheated; the range of ole tasks was too diverse; earlier than others and	Integrate roles of pharmacologist and medical technician to correspond to actual cases in module. Provide optional activities for early finishers. Add additional extra items such as letters, telephone messages. Add instruction sheet for use of microscope and indicate in teacher manuals that a microscope is needed for the activity. Develop role "packets" for all roles to eliminate hurt feelings of students not receiving them. Include additional information needed for nurse's medical forms. Improve directions for medical technician in interpreting and identifying slides. Use more interesting blood cell slides (e.g. sickle cell). Simplify probation officer's legal form and provide better explanation.
ems: the legal forms for r this age to fill in; the t understand what to do Judy; some students had to ey could start theirs; re poorly prepared.	
o do, while others had very vidual assignments does not ecific problems within in- The reviser should care- Not only are some of the nship to each other and to ation is confusing.	1. Provide other activities for those roles that presently are quite brief. Examples might be: - Students who have finished their role assignment can assist others with theirs; - More activities could be included in some of the roles; - Expanded exploration in an individualized instructional mode could be used by early finishers (some of the expanded exploration activities now being considered for the OEP program might well be another alternative.) 2. Clarify/alter the directions, etc. in some of the specific booklets and role packets as indicated above. (Special attention probably should be paid to the roles of probation officer, pharmacologist, psychologist, and medical technician.) 3. Also include more additional "extra" items in role packets.

DATA SOURCE	STRENGTHS	WEAKNESSES
STUDENT QUESTION-NAIRES	The summary helped to pull things together Yes - 75.0%.	There should have been more time for Task meeting could have been called.
TEACHER QUESTION-NAIRES	Two teachers felt the task was somewhat effective in helping students learn about occupational roles played by others in the simulation.	In two classes, breaks in flow or integra between Task 3 and 4. Generally, however task integrated well with the immediate
TEACHER PANELS	Two teachers felt this was the most interesting task of the module. The students made a spirited defense of the center. In one class, students wanted to continue in module activities after city council meeting.	In one class, the students were unenthus make a presentation to others.
OBSERVER FORMS	The city council meeting generally went well. In one class, the teacher served as the "council".	Students wanted to have more information
TRENDS	Clearly, the task was successful as indicated by the teachers' comments. In one class, there was insufficient time allotted to complete the activity given student motivation.	For some classes, more time was needed t is some break in flow of activity betwee felt not enough information was presente zoning laws or legal considerations coul simulation.)

	RECOMMENDATIONS FOR REVISION
4. A second city council	———
tion of tasks occurred , the teachers felt the ctivity.	Improve flow of activities between Task 3 and Task 4. Add an attorney role to provide legal assistance. Add information that will satisfy student curiosity about legal standing of center. Add one preparation day if outside class is to come in as city council members. Provide a summary of simulation to outsiders coming in as city council members.
lastic and didn't want to	———
about the center.	———
o complete the task. There n Task 3 and 4. Students d about the center. (e.g. d be brought into the	1. The revisors should pay special attention to the integration of Tasks 3 and 4. 2. Offer the option of expanding the time from one to two periods. 3. To add more information regarding the center and possibly adding other roles such as that of an attorney who might handle legal problems at the center.

APPENDICES

APPENDIX A:

HEALTH AND WELFARE

Knowledge Test - "What Do You Know?"

and

Attitude Scale - "What Do You Like?"

The project presented/reported herein was performed pursuant to a grant from the National Institute of Education, Department of Health, Education, and Welfare. However, the opinions expressed herein do not necessarily reflect the position or policy of the National Institute of Education, and no official endorsement by the National Institute of Education should be inferred.

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HEALTH AND WELFARE

WHAT DO YOU KNOW? and WHAT DO YOU LIKE?

This booklet contains two short tests. The purposes of the tests are to find out what you know about work in the health and welfare field and what kinds of activities you might enjoy doing in health and welfare. These tests will not in any way affect your grade.

Directions: To complete the first test, use the Answer Sheet and pencil that have been provided. In one corner look for the blanks marked "Course," Instructor," etc. Then write in your name, your class name in the blank marked "Course," your teacher's name in the blank marked "Instructor," and your school name in the blank marked "Campus." Then right above where you've been writing, darken the spaces which indicate your sex and today's date.

For each question on this test there are several short phrases or statements listed. Pick the one that best describes your answer and then darken the appropriate space opposite the item number on the answer sheet. Note: on the answer sheet the item numbers go across the page instead of up and down.

Be sure that your marks are heavy and black and that they completely fill the spaces. Erase completely any answer you wish to change. Do not make any stray marks on the Answer Sheet.

If you don't know the answer to a question, GUESS.

Thanks for your help.

You may turn the page and start as soon as you have completed reading the above paragraphs.

HEALTH AND WELFARE

"WHAT DO YOU KNOW?"

FILL IN THE FOLLOWING INFORMATION

Name _____ Age _____ Grade _____

START THE TEST

1. What person on the staff of a drug treatment center would most likely use individual and group therapy?

   a. The probation officer
   b. The psychologist
   c. The social case worker
   d. The public health nurse

2. Which two workers in a drug treatment center have the most similar types of training?

   a. The nurse and the pharmacist
   b. The probation officer and the social worker
   c. The psychologist and the nurse
   d. The center director and the probation officer

3. The process of diagnosing what is wrong with a patient at a drug treatment center is similar to which of the following?

   a. Servicing a broken TV
   b. Taking an inventory of parts necessary for TV repair
   c. Supplying necessary instruments and parts for TV repair
   d. Evaluating TV repair work

4. Which of the following skills is important for a nurse or potential nurse to have?

   a. Record keeping skills
   b. Personal interaction skills
   c. Public speaking skills
   d. Only a and b
   e. Only b and c

5. A drug treatment center is opening in Oakville. What factor or factors must be considered before the center begins to operate?

   a. How to finance the center
   b. What people the center should treat
   c. Where to locate the center
   d. All of the above
   e. Only a and c

6. What activity do the case worker and probation officer in a drug treatment center have in common?

   a. Helping people get better housing
   b. Working with people in trouble with the law
   c. Identifying possible jobs for people
   d. All of the above
   e. Only a and c

7. Which of the following tasks would most likely be the responsibility of the nurse?

   a. Looking for and recording physical symptoms in patients
   b. Counseling patients with mental problems
   c. Performing laboratory experiments
   d. Diagnosing emotional problems

8. If you are a case worker in a drug treatment center, what would be one of your most important responsibilities?

   a. Treating people with mental problems
   b. Preparing surveys and questionnaires
   c. Helping people get better housing, food, and employment
   d. Giving and interpreting personality tests

9. What type of personal interaction skills is most essential for people who work in a drug treatment center to have?

   a. The ability to listen well
   b. The ability to direct the work of others
   c. The ability to talk and question well
   d. The ability to communicate ideas in writing

10. Paul Smith has come to a drug treatment center for help. One of his most pressing needs is to find legal assistance. To what person might Paul's case be given?

   a. The center director
   b. The probation officer
   c. The psychologist
   d. The sociologist

11. Mary has been treated at a center and cured of her addiction. Tests taken at the center have shown that she is quite intelligent, is good at working with her hands but tends to be somewhat shy and withdrawn. Who at a drug treatment center most likely made the test interpretations?

a. The center director
b. The psychologist
c. The public health nurse
d. The social case worker

12. Which of the following staff members of a drug treatment center could be compared to a "detective"?

a. The probation officer
b. The registered nurse
c. The social case worker
d. The practical nurse

13. Karen has revealed in the first interview with the staff of the drug treatment center that she is very unhappy and has no friends at school. Who would be most likely to help her?

a. The nurse
b. The psychologist
c. The probation officer
d. The center director

14. What is the first step in helping someone who comes to a drug treatment center and who does not require immediate medical attention?

a. Interview the person
b. Identify job possibilities for the person
c. Provide legal assistance for the person
d. Arrange financial help for the person

15. What might the director of a drug treatment center do?

a. Talk before groups of people
b. Conduct staff meetings
c. Prepare a budget
d. Arrange consultations
e. All of the above

16. A medical technician is to a medical technologist as a

a. Probation officer is to a parole officer
b. Pharmacist is to a pharmacologist
c. Public health nurse is to a practical nurse
d. Psychologist is to a counselor

17. Who has the major responsibility for organizing the work of others in order to help people who come to a drug treatment center?

a. The psychologist
b. The probation officer
c. The center director
d. The case worker

18. Who in a drug treatment center would know most about the physical effects of drug abuse?

a. The pharmacologist
b. The nurse
c. The doctor
d. The medical technician

19. John decides on a voluntary basis to seek help for his drug problem. As director of a drug treatment center, to whom would you probably send him first?

a. The nurse
b. The medical technician
c. The physician
d. The social case worker

20. In order for staff members of a drug treatment center to gain the trust of drug abusers, what should they do with the information collected about the abuser?

a. Keep it confidential
b. Share it with the person's family
c. Send it to other agencies
d. All of the above
e. Only a and b

21. What is a major duty or function of a medical technician?

a. Giving medications to patients
b. Recording symptoms of diseases that patients have
c. Testing blood and other body fluids
d. Running experiments with drugs

22. There is a meeting of citizens concerned about the presence of a drug treatment center in their community. Who would likely represent the center at the meeting?

a. The psychologist
b. The probation officer
c. The center director
d. Only b and c

23. In trying to help a person who comes to the center, what is the first step?

a. Interviewing the person to determine needs
b. Examining the person and making a medical diagnosis
c. Providing immediate legal assistance
d. All of the above, depending on the situation

24. The pharmacologist and the medical technician have what in common?

a. They study the effects of drugs
b. They have very similar types of training
c. They run tests on body fluids
d. They work closely together in treating diseases

25. When is a case history usually written about a person who comes to a drug treatment center?

a. After the staff has decided the kinds of help the person needs
b. After the person's case has been given to a staff member
c. After the first interview
d. After the person has stopped coming to the center for help

26. As a psychologist in a drug treatment center, you might be expected to perform which of the following tasks?

a. Help a person find a job
b. Write a case history
c. Administer aptitude tests
d. Conduct staff meetings

27. In general, whose work does the doctor depend on most heavily to help him check his diagnosis?

a. The nurse
b. The psychologist
c. The medical technician
d. The pharmacologist

28. If you like to do accurate as well as very detailed work, you probably would enjoy which of the following jobs?

a. The social case worker
b. The probation officer
c. The center director
d. The medical technician

29. Which of the following sets of information would be included in the case history of a drug abuser?

a. Medical records
b. Work records
c. School records
d. Legal records
e. All of the above

30. The spaceship "Enterprise" has returned from a twelve-year voyage into space. On one of its stops the crew became addicted to a new drug contained in a sweet and good-tasting fruit. They have been referred to your drug treatment center. Who at the center will most likely study the new drug and the effects of the addiction?

a. The nurse
b. The physician
c. The pharmacologist
d. The medical technician

31. When a person is applying for a job at a drug treatment center, what information is considered before the person is hired?

a. Information provided on forms and transcripts
b. Information provided by character references
c. Information provided in an applicant interview
d. All of the above
e. Only a and c

32. If the director of a drug treatment center discovers that some staff members have too many cases to work with while others have too few, what is he most likely to do?

a. Leave the situation as it is
b. Reassign some cases to others by himself
c. Consult the psychologist about reassigning the cases to others
d. Call a staff meeting to reassign cases

33. What position would the director of a drug treatment center be most similar to?

a. An astronomer
b. An orchestra conductor
c. A teacher
d. A lawyer

34. What statement best describes the interaction of a staff at a drug treatment center?

a. They always work alone, but see each other's reports
b. They seldom work together and seldom see each other's reports
c. They work together as a team, sharing reports and ideas
d. They work only with the director

HEALTH AND WELFARE

"WHAT DO YOU LIKE?"

This is the second set of questions for you to answer. The purpose of these questions is to find out what types of activities you might enjoy doing in the health and welfare field. We would also like to know what reasons you have for liking these activities.

There are only seven (7) questions to answer. Directions for answering are found on each page. Write your answers directly on the page.

After you have completed the questions, please return this booklet and your answer sheet from the first test to your teacher.

Thanks for your help.

Please turn the page and begin the questions as soon as you have finished reading the above paragraphs.

Directions: For the six questions below, place a check (✓) in the column which best describes whether you would like, dislike, or are uncertain about trying the activity described in the question. List reasons for your choice in the space provided at the right of the page. All the activities described are work done by people who work in the health and welfare field. If you do not know enough about the activity to decide, check only the last column and do not list any reasons.

QUESTIONS	Yes, I would like to try doing this.	No, I would not like to try doing this.	I'm uncertain about trying to do this.	I don't have enough information to make a decision.	MY REASONS FOR MY CHOICE ARE:
1. Would you like to try working in the medical field by examining, diagnosing, and treating people who are in poor health or helping people to keep their good health?					
2. Would you like to try interpreting intelligence and personality tests and diagnosing and treating mental and emotional problems?					
3. Would you like to try studying and learning how drugs affect people and animals by working in a laboratory and by performing experiments?					
4. Would you like to try helping people with problems to obtain housing, food, employment, and, if necessary, legal assistance?					
5. Would you like to try performing specified tests on blood and other body fluids and giving the results of these tests to the appropriate medical staff?					
6. Would you like to try directing a drug treatment center by conducting meetings, organizing the work of others, answering questions, etc.?					

7. Below is a conversation between two people. Person 2 is looking for a job and is considering work in the health and welfare field. Person 2, a worker in health and welfare is thinking about giving person 1 some advice. Pretend that you are person 2, giving advice. Simply complete person two's advice at the end of the conversation.

Person 1: Hi pal, how's it going?
Person 2: Well, aside from having my car stall in the morning rush hour, everything's pretty good. How's it with you?

Person 1: Fine, but I've been thinking about doing something different. I've become very concerned about the growing problem of drug abuse. Don't you work for a drug treatment center?
Person 2: Yes, I've been with the Oakville Drug Treatment Clinic for the last year.

Person 1: Listen, would you help me out? Would you tell me what kind of experiences or activities might help me to prepare for a job in the health and welfare field?
Person 2: Sure, here's what I would do if I were you.

APPENDIX B:

HEALTH AND WELFARE

Student Questionnaire - "What Do You Think?"

The project presented/reported herein was performed pursuant to a grant from the National Institute of Education, Department of Health, Education, and Welfare. However, the opinions expressed herein do not necessarily reflect the position or policy of the National Institute of Education, and no official endorsement by the National Institute of Education should be inferred.

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"WHAT DO YOU THINK?"

Now that you have completed this simulation, the people who developed it would like to find out what you think about your experience. Your ideas will help to make the simulation better. Remember, THIS IS NOT A TEST and your answers will not be graded. So feel free to check and to say what you think about this simulation.

To complete the questionnaire first fill in the information requested below.

FILL IN THE FOLLOWING INFORMATION

Name_____ Date_____

School_____ City_____

Age_____

Grade (circle one) 8th 9th Other (please specify)_____

Sex (circle one) Male Female

Subject taught in this class_____

Teacher's name_____

START THE QUESTIONS

This is a list of statements which describe ideas about the simulation module you have just completed. Answer each statement by checking the category which comes closest to what you think:

Check "AGREE" if you think the statement is true for you.

Check "DISAGREE" if you think the statement is NOT true for you.

	AGREE	DISAGREE
1. The preview and the other activities at the beginning helped to prepare me for the simulation.	_____	_____
2. The role descriptions gave me little information helpful in choosing a role.	_____	_____

		AGREE	DISAGREE
3.	I selected a role by myself.	_____	_____
4.	The teacher helped the class to select roles.	_____	_____
5.	Some of the tasks were too complicated or too hard for me to do.	_____	_____
6.	The summary helped me to "pull things together."	_____	_____
7.	The simulation preview, activities and summary fit well together.	_____	_____
	There were too many forms to fill out with this simulation.	_____	_____
9.	The directions in the materials were clear to me.	_____	_____
10	The teacher explained a lot of words.	_____	_____
11.	The pretest and posttest were difficult for me.	_____	_____
12.	The booklets and resource materials were easy to read.	_____	_____
13	The teacher explained a lot of ideas.	_____	_____
14.	The simulation was too short.	_____	_____
15.	Sometimes I had nothing to do.	_____	_____
16.	Sometimes I had too many things to do in this role.	_____	_____
17.	I learned quite a bit about jobs in this field of work.	_____	_____
18.	I learned very little about how to work with other people.	_____	_____
19.	The simulation did not help to answer some of the questions I have about jobs.	_____	_____
20.	I enjoyed working with other students during the simulation.	_____	_____

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Answer these questions by circling the letter in front of the phrase that best describes your answer.

21. How much do you feel you learned about jobs in this field of work from the simulation?

a. Very much b. Much c. An average amount d. Little e. Very Little

22. How much trouble do you feel you had knowing what to do next in the simulation?

a. Very much b. Much c. An average amount d. Little e. Very little

23. How would you judge the length of time you spent participating in this simulation module?

a. Too long b. Long c. Just right d. Short e. Too short

For the next questions, write in your answers. Space has also been provided for you to write in any comments/suggestions you might have. You are encouraged to do so.

24. What role (or roles) did you play in this simulation?

_____

25. Name some of the things you liked most about the role(s) and some of the things you liked least about the role(s).

Liked Most	Liked Least
_____	_____
_____	_____
_____	_____

26. What other roles in the simulation did you find interesting?

_____

27. Why did you find this role (or roles) interesting? If you did not find any other roles interesting, can you say why?

28. Name some of the materials (Examples: slides, tapes, films, resource materials, booklets, etc.) you liked most and some of the materials you liked least. If you did not use any materials, check this space._____

Liked Most	Liked Least
_____	_____
_____	_____
_____	_____

29. Compared to your former feelings, how do you now feel about jobs in this area of work?

WHY?

____I am more interested now

____I am less interested now

____I was not interested and I feel the same way now

____I was interested and I feel the same way now

30. Did you discover any new interests by participating in this simulation?

____Yes, I am now interested in _____

____No

31. Name some of the things you liked most about the simulation and some of the things you liked least about the simulation.

Liked Most	Liked Least
_____	_____
_____	_____
_____	_____
_____	_____

32. Write down some of your ideas on how the simulation might be made better.

As soon as you have completed these questions, turn in this booklet to your teacher.

Thank you.

APPENDIX C:

Midway Questionnaire

and

General Module Evaluation

MIDWAY

QUESTIONNAIRE

MIDWAY MODULE QUESTIONNAIRE

The questionnaire is divided into several sections. Each section in order corresponds to a part or a phase of the simulation module. The last sections deal with your overall perceptions at this point in time regarding what has happened in the module.

Fill in the information requested at the top of the questions. Then answer each question by circling the letter in front of the phrase that best describes your answer, unless given other specific directions in the question. Space has also been provided for you to write in any comments/suggestions you might have. You are encouraged to do so.

FILL IN THE FOLLOWING INFORMATION

Teacher Name_____School_____

Date _____Part of the Module you are now working on_____

INTRODUCTION TO SIMULATION

1. Overall, how would you rate the technical quality (appearance, ease of use, etc.) of the slides and booklet? (Answer both parts of question if applicable.)

Slides	Booklet	Comments
a. Very Good	a. Very Good	
b. Good	b. Good	
c. Average	c. Average	
d. Poor	d. Poor	
e. Very Poor	e. Very Poor	

2. In what order would you recommend the use of slides and the booklet? (Choose only one).

a. Use both in any order
b. Use both with booklet first
c. Use both with slides first
d. Use the booklet only
e. Use the slides only
f. None of the above

3. Please record any strengths and/or weaknesses that you observed while working with this part of the simulation module_____

_____

_____

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MODULE PREVIEW

4. Indicate the form of presentation used (e.g., booklet, sound-slide, game, etc.)_____

5. How would you rate the technical quality (ease of use, appearance, etc.) for media and/or the illustrations for booklets?

a. Very High b. High c. Medium d. Low e. Very Low

6. In your judgment, did this form provide pertinent information that students would use in making decisions about module participation?

a. Very Pertinent b. Rather Pertinent c. Average d. Not very Pertinent e. Not Pertinent at all

7. Overall, how would you rate the ability of the "Preview" form for motivating students to participate in the module?

a. Very High b. High c. Medium d. Low e. Very Low

8. Please record any strengths and/or weaknesses that you observed while working with this part of the simulation module_____

_____

_____

PREPARATION PHASE/ROLE SELECTION

9. Indicate the form of presentation (e.g., slide-tapes, booklets, etc.) used in the Preparation Phase._____

10. How would you rate the technical quality (e.g., ease of use, appearance, etc.) for media and/or illustrations for booklets?

a. Very High b. High c. Medium d. Low e. Very Low

11. How well did the Preparation Phase fit together with the Module Preview? (i.e., did the Preview flow into the Preparation Phase?)

a. Very Well b. Well c. Somewhat d. Poorly e. Very Poorly

12. Did the initial role descriptions provide students with enough information for selecting roles?

a. Yes, the information was very adequate
b. Yes, the information was rather adequate
c. No, the information was rather inadequate
d. No, the information was very inadequate

13. If schematic devices (e.g. schedule cards) were available to help select roles, did students understand how to use them?

a. Yes, with little or no help
b. Yes, with some help
c. Yes, with a great deal of help
d. No
e. Not applicable

14. Were the students able to independently select themselves into roles?

a. Yes, [illegible] little difficulty
b. Yes, with some difficulty
c. No, some teacher assistance was necessary
d. No, extensive teacher assistance was necessary

15. If you had to help students select roles, please describe the nature of that assistance (e.g. asked students to draw lots when several wanted the same role; explained use of schematic device, etc.) in the space below:

16. Please record any strengths and/or weaknesses that you observed while working with this part of the simulation module_____

_____

_____

PLAYING TASKS

This section includes questions about the implementation of tasks, the flow of one task to another, etc. We would like your reactions to the tasks up to this point. We realize that you have not completed all of the tasks. We will ask you about the later tasks in the short questionnaire administered after the module has been completed.

17. In general, was the recommended time appropriate for completing the tasks?

a. Yes
b. Somewhat
c. No
If "No," please specify the task(s)_____

18. In general, were the tasks appropriate to the maturational level of the students?

a. Yes
b. Somewhat
c. No
If "No," please specify the task(s)_____

19. How would you rate the flow or integration of one task with another?

a. Very Good b. Good c. Average d. Poor e. Very Poor

20. Did you have any special problems or any particular breaks in flow?

a. Yes
b. No
If "Yes," please specify_____

21. How would you rate student understanding of task directions and/or task materials?

a. Very High b. High c. Average d. Low e. Very Low

If "Low," or "Very Low," please specify_____

_____

22. Did the students have any major problems in implementing the tasks?

a. Yes
b. Somewhat
c. No
If "Yes," please specify_____

23. Please record any strengths and/or weaknesses that you observed while working with this part of the simulation module_____

_____

_____

STUDENT INTEREST AND UNDERSTANDING

24. In general, were the directions in the module clear enough for students to understand what was expected of them?

a. Very Clear b. Clear c. Average d. Unclear e. Very Unclear

25. In general, was the vocabulary of the module consistent with the maturational level of the students in the simulation?

a. Yes, most of it b. Yes, some of it c. No, not much of it d. No, none of it

26. In general, were the students able to understand the concepts presented in the materials?

a. Yes, most of the time b. Yes, some of the time c. No, not much of the time d. No, not at all

27. In general, did the materials stimulate student interest?

a. Yes, most of the time b. Yes, some of the time c. No, not much of the time d. No, not at all

28. Did your students experience problems with the reading level of this simulation module?

a. Yes, many problems b. Yes, some problems c. Yes, but few problems d. No problems

29. While working with the students in the simulation module, did you spend extra time in reviewing the basic concepts presented in that phase?

a. Yes, I spent much time
b. Yes, I spent little time
c. No, I didn't spend any time

30. Please record any strengths and/or weaknesses that you observed while working with this part of the simulation module_____

_____

_____

ADEQUACY OF MATERIALS - OVERALL PERCEPTIONS

31. In general, how well did the transitions from phase to phase of the module proceed?

a. Very Well b. Well c. About Average d. Poorly e. Very Poorly

32. Up to this point, are there any additions, deletions, or changes in the module that you feel should be made?

a. Yes, make the following changes_____

_____

b. No changes are necessary

33. Are there any parts of the module that "just didn't work?"

a. Yes, the following parts_____

_____

b. No, all parts worked well

34. All factors considered, which specific set of materials would you rate as the best?

_____

35. All factors considered, which specific set of materials would you rate as the worst?

_____

36. Up to this point, add as many comments and/or suggestions for revision of the module as you might have.

GENERAL MODULE EVALUATION

GENERAL MODULE EVALUATION

This questionnaire is divided into several sections. The first two sections correspond to the last tasks in the module (i.e., those from the Midway Questionnaire to the end of the module) and to the Summary Phase. The last sections deal with general teacher and student background and your overall perceptions of the quality of the materials, implementational problems, student interest and understanding, etc.

Answer each question by circling the letter in front of the phrase that best describes your answer, unless given other specific directions in the question. Space has also been provided for you to write in any comments/suggestions you might have. You are encouraged to do so.

GENERAL MODULE EVALUATION

FILL IN THE FOLLOWING INFORMATION

Teacher Name_____ _____School_____Sex_____

Years of Teaching Experience_____City_____

LAST TASKS

1. In general, was the recommended time appropriate for completing the tasks?

   a. Yes
   b. Somewhat
   c. No
   If "No," please specify the task(s)_____

2. In general, were the tasks appropriate to the maturational level of the students?

   a. Yes
   b. Somewhat
   c. No
   If "No," please specify the task(s)_____

3. How would you rate the flow or integration of the tasks with each other?

   a. Very Good b. Good c. Average d. Poor e. Very Poor

4. Did you have any particular breaks in flow?

   a. Yes
   b. No
   If "Yes," please specify_____

5. How would you rate student understanding of task directions and/or task materials?

   a. Very High b. High c. Medium d. Low e. Very Low
   If "Low," or "Very Low," please specify_____

6. Did the students have any major problems in implementing the tasks?

   a. Yes
   b. Somewhat
   c. No
   If "Yes," please specify_____

7. Please record any strengths and/or weaknesses you observed while working on this part of the simulation module:

_____

_____

SUMMARY PHASE

8. How would you rate the effectiveness of the Summary Phase in providing a reasonable culmination, i.e., in tying together concepts, roles, etc. presented in the module, to the simulation experience?

a. Very High b. High c. Medium d. Low e. Very Low

9. To what extent was the Summary Phase integrated with the immediately preceding activities or tasks?

a. Very Well b. Well c. Average d. Poorly e. Very Poorly

10. How would you rate the effectiveness of the Summary Phase in helping students learn about occupational roles performed by others in the simulation?

a. Very Effective b. Somewhat Effective c. Not Effective

11. How useful do you feel the Summary Phase would be in helping students to make decisions about participation in other occupational exploration activities, i.e., other simulation modules, etc.?

a. Very Useful b. Somewhat Useful c. Not Useful

12. Please record any strengths and/or weaknesses you observed while working on this part of the module:

_____

_____

OVERALL PERCEPTIONS

TEACHER BACKGROUND

13. In what kind of group setting (e.g., English classroom, math classroom, students from study hall, students from a guidance group, etc.) and at what grade level did you introduce this simulation?

    a. Group Setting (please specify)_____

    b. Grade Level (please specify)_____

14. Have you had any previous experience with simulation as an instructional technique?

    a. Yes, as a teacher
    b. Yes, as an observer
    c. Yes, as a participant
    d. No

15. If you answered yes to question 14, briefly describe the nature and extent of your previous experiences with simulation If your response to question 14 was "No", please proceed to question 16.

    a. My previous experiences with simulation include_____

    _____

    _____

16. Which of the following statements best describes your reasons for participating in the pilot test of this simulation module?

    a. Wanted to try out new ways of organizing instruction for students
    b. Have an interest in Career Education
    c. Thought material was of value for students
    d. Have a general interest or curiosity
    e. I was requested to participate
    f. Other, or some combination of the above (please specify)__

    _____

STUDENT BACKGROUND

17. How were students selected to participate in the simulation?

a. Students volunteered from the class
b. The class, rather than the students, volunteered
c. Student volunteers from a study hall
d. Other, please specify_____

_____

18. If you had volunteer students participating in the simulation, which of the following reasons best describes your perception of why they participated? If you did not have any volunteer students, please proceed to question 19.

a. Interest in trying something new
b. Interest in particular area simulated
c. Interest in careers
d. Interest in just getting out of class or study hall
e. Other, or some combination of the above (please specify)__

_____

_____

f. I can't really guess at the reason(s)

19. Indicate any special characteristics of this class, e.g., many slow readers in class; many students with exceptionally good verbal skills; etc., which may bias the results of the pilot test of this module. Also, describe how you feel the results will be biased by these characteristics.

a. Characteristics — Biases Produced

_____ _____

_____ _____

_____ _____

b. No special characteristics

IMPLEMENTATION OF THE MODULE

20. How well did the in-service training prepare you to work with the module?

a. Very Well b. Well c. Somewhat d. Poorly e. Very Poorly

21. Did the in-service training provide you with a general understanding of your role in the module implementation?

a. Yes
b. Somewhat
c. No
If "No," please specify_____

_____

22. While working with this module, did you have to allot (or spend) more time than you normally would for preparation (exclude the time spent in in-service training)?

a. Yes, specify additional time in hours_____
b. Some extra time was necessary
c. No extra time was necessary

23. How sizable was the job of managing/coordinating (helping students, keeping track of materials) this simulation module for you?

a. Very Sizable b. About Average c. Not Sizable

ADEQUACY OF EVALUATION MATERIALS

24. Do you feel that the knowledge (What do you know?) and the attitude (What do you like?) tests were adequate measures of the material contained in the module? (Answer both parts of the question.)

Knowledge Test	Comments	Attitude Test	Comments
a. Yes		a. Yes	
b. Somewhat		b. Somewhat	
c. No		c. No	

25. To what extent was the knowledge test difficult for students?

a. Very Difficult b. Difficult c. About Average d. Easy e. Very Easy

STUDENT UNDERSTANDING, INTEREST, AND PARTICIPATION

26. In general, were the directions in the module clear enough for students to understand what was expected of them?

a. Very Clear b. Clear c. Average d. Unclear e. Very Unclear

27. In general, was the vocabulary consistent with the maturational level of the students in the simulation?

a. Yes, most of it b. Yes, some of it c. No, not much of it d. No, none of it

28. Did your students experience problems with the reading level of this module?

a. Yes, many problems b. Yes, some problems c. Yes, but few problems d. No problems

29. To what extent do you feel students were receptive (interested in, excited by) to simulation as a way of learning?

a. Very Receptive b. Receptive c. Average d. Non-Receptive e. Very non-Receptive

30. To what extent do you feel that students were receptive (interested in, excited by) to the content of this particular module?

a. Very Receptive b. Receptive c. Average d. Non-Receptive e. Very non-Receptive

31. Was there any change in student interest or motivation as they progressed through the module?

a. Yes
b. Somewhat
c. No
If "Yes," interest changed as follows_____

_____

32. Do you feel that this module reinforced or helped to build the student's ability to make decisions?

a. Yes
b. Somewhat
c. No
d. Don't know
If "Yes," please specify how_____

_____

33. In your judgment, how much did the students learn about the process of simulation (role playing, problem solving, group interaction, etc.)

a. Very Much b. Much c. An average amount d. Little e. Very Little

34. In your judgment, how much did students learn about the content of the module?

a. Very Much b. Much c. An average amount d. Little e. Very Little

35. Are there any students or groups of students (e.g., some students may have difficulty working in small self-directed groups) that you feel would have difficulty in participating in simulated types of experiences?

a. Yes
b. No
If "Yes," please specify_____

_____

36. For what grades would you consider this module to be appropriate?

a. 10th or higher b. 9th c. 8th d. 7th or lower e. Other

37. Ideally, how many students should participate in this module?

Number of students_____

38. In general, did this module change the working relationships (personal interactions) between you and participating students?

a. Yes
b. Somewhat
c. No
If "Yes," or "Somewhat," the relationship changed as follows___

_____

OVERALL PERCEPTIONS AND RECOMMENDATIONS

39. Overall, how would you rate the quality of the module?

a. Very Good b. Good c. Average d. Poor e. Very Poor

40. If possible, would you use this module with students again?

a. Yes, with no modifications
b. Yes, with minor modifications
c. Yes, with major modifications
d. No
Please comment, if you wish_____

_____

41. Would you recommend this module to other teachers?

a. Yes
b. No
Please give your reason(s)_____

_____

42. Were the main ideas and themes presented with logical consistency in the content of the module?

a. Yes
b. Somewhat
c. No
If "No," please specify where the problems occurred_____

_____

43. All factors considered, which specific set of materials would you rate as the best?

_____

_____

44. All factors considered, which specific set of materials would you rate as the worst?

_____

_____

45. Add as many comments and/or suggestions for revision of the module as you might have.

_____

_____

_____

APPENDIX D:

Observer Form

SIMULATION OBSERVERS FORM - A

This instrument is designed to obtain samples of on-going classroom behavior of students using simulation modules. These modules are being pilot tested as a part of the Occupational Exploration Program by the Center for Vocational and Technical Education at The Ohio State University and the Jefferson County Public Schools.

The observation form is made up of a set of three sheets. Each set contains four parts: the heading, media section, general comments and the interaction and activities section. An observation form set is to be used for each period that is observed. The parts of each set are discussed below.

The Heading

The heading simply identifies the time, place, observer and the portion of the module that was observed. For ease of completion, the observer's name, school, and module have been given a number code. Simply circle the appropriate number according to the code below:

Observer:	Numbers will be assigned
School:	1. Alameda Junior High 2. Hamilton Junior High 3. Lake Junior High 4. Wheat Ridge Junior High
Module:	1. Communications 2. Product Services 3. Insurance 4. Health & Welfare
Date:	Indicate the date of the observation
Activity or Activities:	Indicate either the title of the activity i.e. "Preview" "Summary" or the number i.e. "Task 3" etc. Several spaces are provided in the event that more than one task or activity takes place in one period.

1. Media

The media section has two spaces that should be completed each time the pupils use some form of media. In the space following the type of media used, place a check (✓) each time the media is used. For each (✓), the number of students using that form of media should be indicated in the No. of Students Column. (See sample).

2. General Comments

The general comments section is designed to capture comments that do not lend themselves to the other categories. Two categories that are of continuing interest is the amount of time spent by pupils getting ready to start and the amount of time cleaning up and getting ready to leave. You will note that these categories are pre-printed on the observation form. (Examples of general comments of interest appear on the sample form).

3. Interaction & Activities

This section is designed to provide several kinds of information:

a. How frequently do certain categories of events occur?

b. What size group were the students in during the event?

c. What were the circumstances surrounding the event?

and in some instances:

d. How long did the event last?

The procedure for this section is as follows: Each time one of the events in either the student or teacher activity columns occurs record an arabic number in either the total group or sub-group column. (The total group column is appropriate when all of the students are working together). (The small group column is appropriate when the students are working individually or in two or more groups). Begin with number 1 each period; then number the events consecutively throughout the period. The comment section is provided in order that a very brief comment or key word may be used to explain each arabic number. (See example). NOTE: The events for the entire period should be numbered consecutively even though they are scattered between categories a through f. This system will allow the evaluation staff to reconstruct what happened during each period.

If a number of questions about the same thing occur in category a, the numbers may be bracketed as is shown in the sample. Also if a number of questions follow each other, it is of interest how long the questioning took. (Again see the example).

Explanation of Sample Form

Heading. This form was completed by observer number 2 at Alameda Junior High on Task 1 of the Communications Module, March 21, 1974. Eight pupils were present the day of the observation.

Media Section.

During the observation period, the students used two media forms in Tasks 1 & 2. They began with the sound/slide presentation, switched to the booklet, and finally used the booklet as they began Task 2. The media in each instance was used by the total group.

General Comments.

Some of the general comments relate to other parts of the observation form in the sample, others are simply given as examples of the kinds of comments that might be appropriate. Note that it took the students 5 minutes to get started and 3 minutes to get ready to leave.

The comment space is designed to capture your overall impressions of special or noteworthy events occurring during the period.

Interaction and Activities Section.

This section provides a sequential history of what happened during the period. By reading the Arabic numbers and comments in order, the sample allows the following reconstruction of events.

1. The pupils began as intended by viewing the slide tape as a total group.
2. Someone asked for help with the slide tape machine.
3. As the teacher helped with the machine, other students began to "horse around".
4. The teacher, discovering the machine was broken, directed the pupils to use the booklet instead.
5. Teacher stopped the horseplay and redirected the actions of the miscreants.
6. A pupil asked for help in finding a booklet.
7. A pupil did not understand the booklet.

8, 9, 10, 11. A number of questions were asked regarding what should be done following the booklet - 5 minutes were consumed.

12. The pupils broke up into groups at this point. (The observer is now focusing on one of the groups only).

13. The teacher redirected the leader to his proper group.

14. The small group assembled & began to discuss their task as intended.

15. The task was completed, the product (a report in this instance) was completed. The total group moved on to Task 2 as the time came to begin the cleanup/put-away procedure.

Footnotes

Obviously all that transpired during the period was not recorded. No observer should feel they must capture every single event or question. With experience and through use of the flow chart for the module being observed, observers will become increasingly capable of capturing the more significant questions, events, etc.

Should questions arise, do not hesitate to contact John Radloff, Jeffco Career Education Office - 423-7010.

SIMULATION OBSERVERS FORM-A

OBSERVER 1 (2) 3 4 5 6 7 8 9 10 SCHOOL (1) 2 3 4 MODULE (1) 2 3 4 DATE 3/21/74

Activity(ies) (Number or Title) (a) TASK 1 MARKET RES (b) TASK 2 MEDIA RESEARCH

Number of pupils present 8

1. MEDIA

Media Used	✓	No. of Students
Booklets or Packets	✓ ✓	8 8
Sound/Slide (Slide/Tape)	✓	8
Video Tape		
Film-o-Sound		
Sound-Pages		
Overhead Projector		
Tape Recorder		

2. GENERAL COMMENTS

Time to get started 5 MINUTES

- MESSENGER INTERRUPTED TO READ A NOTICE
- FIRE ALARM SOUNDED - PUPILS OUT 10 MINUTES
- PUPILS DID NOT UNDERSTAND THE SLIDE/TAPE.
- THE SLIDE/TAPE MACHINE BROKE MIDWAY IN THE PRESENTATION
- THE PUPILS BOGGED DOWN SO BADLY THAT THE TEACHER HAD TO GIVE ALL DIRECTIONS.

Time to clean up to leave 3 MINUTES

3. INTERACTION & ACTIVITIES	FREQUENCY Total Group	FREQUENCY Sub Group	COMMENTS
The Students ... a. Ask teacher for directions, explanation, clarification, word meaning, etc.	2. 6. 7. 8. 9. 10. 11.	13.	2. ASKED FOR HELP WITH MACHINE. 6. ASKED HOW TO FIND BOOKLET 7. DIDN'T UNDERSTAND BOOKLET 8, 9, 10, 11. - NEEDED HELP IN WHAT TO DO AFTER FINISHING BOOKLET (5 MIN.) 13. GROUP LEADER NEEDED HELP IN STARTING SMALL MEETING.
b. Participate as intended (No questions, no problems - activity is proceeding smoothly).	1.	12. 14.	1. SLIDE TAPE 12. PUPILS INTO 2 GROUPS 14. SMALL GROUP MEETING
c. Encounter a transition point (Complete the product for one activity and prepare to move on to another activity).	15.		15. MOVED TO TASK 2 AS BELL RANG

3. INTERACTION & ACTIVITIES	FREQUENCY Total Group	FREQUENCY Sub Group	COMMENTS
d. Spend time on activities other than those intended, such as horsing around, doing homework, sleeping, getting organized	3.		3. WHILE TEACHER TRIED TO FIX MACHINE.
The teacher: e. Prompts activity by giving explanations, directions or clarification	4. 16.		4. INSTRUCTED PUPILS TO USE BOOKLET 16. TEACHER DIRECTED PUPILS TO PUT MATERIALS AWAY.
f. Re-directs activities to make them consistent with module activities	5.	13.	5. STOPPED FOOLISHNESS 13. HELPED GROUP LEADER START