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ABSTRACT

Descriptive information on evaluation instruments for measuring effective health education programs is included in this bibliography. The evaluation instruments are listed in five categories, four of which correspond to the school level for which the instrument has been designed--elementary, junior high, senior high, and college and nonstudent groups. The fifth category consists of instruments for school health program evaluation. (JL)

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EVALUATION INSTRUMENTS

IN

HEALTH EDUCATION

Third Edition

An Annotated Bibliography
of

Knowledge, Attitude, Behavior and School Health Program
Evaluation Instruments for Elementary, Junior High,
Senior High, College and Nonstudent Groups

Prepared by:

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PREFACE

The third edition of Evaluation Instruments in Health Education contains 143 different citations. Almost all of the instruments have been developed between 1965 and 1978. The second edition of this Bibliography appeared in 1969, so there is some overlap, but approximately 90 of the items in this Bibliography are dated 1969 or later. Readers may want to use this publication in conjunction with the earlier edition. Although the older knowledge tests may be outdated, attitude scales and behavior inventories might still be useful.

The majority of the instruments included in this edition have resulted from health education thesis and dissertation research. Computer (and manual) searches of Dissertation Abstracts and ERIC provided a number of items, as did reviews of Completed Research in Health, Physical Education and Recreation, Health Education Completed Research, A Topical Listing of Theses and Dissertations in Health Education (Volumes I, II, III), and Health, Physical Education and Recreation Microform Publication Bulletins. In addition, numerous persons have responded to inquiries concerning journal articles or test information gained from other sources. There are a number of additional sources of evaluation instruments, but it was not judged appropriate to try to duplicate them. Readers are referred to the section of this Bibliography titled, "Additional Sources of Evaluation Instruments."

In using this Bibliography, it will be noted that the evaluation instruments are listed in five categories, four of which correspond to the school level for which the instrument has been designed: elementary, junior high, senior high, and college and nonstudent groups. The fifth category, new to this edition, consists of instruments for school health program evaluation. Readers interested in locating an instrument for a particular subject area will find it helpful to consult the Subject Index.

In order to increase the usefulness of the Bibliography, an attempt has been made to provide descriptive information about the evaluation instruments, including validity and reliability, when this could be obtained. Research abstracts were the most frequently used sources. Readers seeking more information about an instrument may find it in the sources mentioned previously. When ERIC or Health, Physical Education and Recreation Microform sources are available, reference numbers are cited in the annotations. As in the past, no attempt has been made to evaluate or screen the instruments.

I am grateful to many people for making this publication possible. Dr. Elena Sliepceвич provided the initial impetus in 1960, and has continued to show her interest in the project. Dr. Mary K. Beyrer, Chairman of the Completed Research Committee

Committee of the Association for the Advancement of Health Education, has provided many titles and abstracts, and many other people have provided copies of their instruments, details about revisions, or other information that has enabled me to keep up-to-date in the never-ending search for evaluation instruments. I am most appreciative of their assistance.

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March, 1979

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EVALUATION INSTRUMENTS FOR
ELEMENTARY SCHOOL STUDENTS

AAHPER Cooperative Health Education Test: Elementary Level--
Preliminary Form. Reading, Mass.: Addison-Wesley Publishing
Co., Inc., 1971.

This test is designed for fifth and sixth grade students. It consists of 50 four-option multiple choice questions, pertaining to ten health content areas. Students are required to demonstrate and apply their knowledge and to use the higher abilities of analysis and evaluation. Reliability (KR 21) is available for both boys and girls and ranges from .85 to .91. Other statistical information is available, as are norms, by grade and sex, in a handbook that also provides details about test development procedures. The test takes approximately 45 minutes to administer.

Becklund, Larry. Respiratory Knowledge Test for the Intermediate Grades. M. S., University of Illinois, 1970.

A 39-item multiple choice test was constructed. The researcher indicates that in its present form the test is not reliable and a number of items need to be revised. The reliability coefficient was .663 (KR 20) and .562 (KR 21).

Benbassat, William A. The Development of an Evaluation Instrument to Appraise the Health Practices of Elementary School Students. Dr. P.H., University of California, Los Angeles, 1976.

A 63-item Health Practice Inventory for grades 1-3 was developed, with practices representing ten different health areas. The format of the Inventory is pictorial, and children respond in terms of what they do in relation to each health practice. The instrument was judged to be reliable and valid.

Brown, Jim Mack. Differences in Attitudes of Public School Students Toward Selected Drugs and the Relationship Between These Attitudes and Drug Knowledge. Ph.D., North Texas State University, 1971.

Attitudes toward cigarettes, alcoholic drinks, marijuana, LSD, heroin and methedrine were measured by a semantic differential scale. Drug knowledge was measured by the "Drug Knowledge Test", a 31-item multiple choice test constructed for the study.

Cook, Ronald J. Assessing the Attitudes, Beliefs and Behavioral Intentions of Selected Fifth Grade Students Toward Dental Health. Ph.D., University of Illinois, 1976.

The instrument developed in this study was designed to be used in the assessment of the American Dental Association's dental health education curriculum, Level II. Sixty-two statements were developed, in semantic-differential/Likert-type format. Statements involved the students' beliefs, social norms, moral norms, and attitudes toward performing the behavior. Data analysis indicated that the instrument should provide an accurate prediction of behavioral intentions. Construct and content validity were demonstrated in the instrument development process, and test-retest reliability proved acceptable for the purpose of group comparisons.

Cook, Ronald J. Development of a Sixth Grade Knowledge Test. M.S., University of Illinois, 1973.

The evaluation instrument developed in this study was designed specifically for evaluating student health knowledge after exposure to the heart unit of the Elementary School Health Education Curriculum Project. The test instrument consisted of 65 four-option multiple choice questions. Reliability was .692 (KR 20) and .590 (KR 21). Following statistical analysis of the data, a revised, 45-item test was developed with reliability of .879 and .867. See University of Oregon HPER Microform, No. 199f.

Cormier, Patricia P. et al. "Dental Health Knowledge Tests: Their Development, Implementation and Evaluation," The Journal of School Health, 48: 610-15, December, 1978.

These dental health knowledge tests were developed as part of a dental health education program in the public school system of a rural community. Fourteen tests were developed, two (parallel forms) for each grade level, K-6. Tests for kindergarten and grade 1 are pictorial; in the upper grade tests the format is four-option multiple choice. Content validity was assured by the judgments of a team of dental health educators and the use of health education and dental health education texts. Reliability (KR 20) ranged from .61 to .84. Further information may be obtained from Dr. Cormier, Chief, Educational Services Division, Department of Dental Care Systems, University of Pennsylvania, 4001 Spruce St., Philadelphia, Pa. 19104.

Davila, Rebecca Tober. The Development and Evaluation of a Pictorial Health Information Test for First Grade Pupils. M. A., Texas Woman's University, 1969.

This is a 30-item multiple choice test designed to measure the health information of first graders. Each item has three pictures, and children respond by circling the concept they believe to be correct.

(A thesis completed at T.W.U. in 1973, using this test, can be found on microfiche in the University of Oregon HPER Microform Publications. "Health Information of Primary Educable Mentally Retarded Children as Measured by the Davila Pictorial Health Information Test." Microfiche No. HE 207f.)

Gay, John E. Development of a Drug Attitude Questionnaire for Sixth Grade Students. M. A., California State University, San Diego, 1972.

A drug attitude questionnaire was developed, using criteria established by a panel of jurors. Reliability was established as .78 (KR).

Gilmore, Gary D. The Development, Implementation, and Evaluation of a Family Health Education Program Incorporating the Concept of Prevention. Ph.D., University of Tennessee, 1974.

The Attitudinal Inventory of Prevention was developed to evaluate the effect of a health education program in changing the attitudes toward prevention of fifth grade students and their parents. Curricular validity was established by a national jury; reliability was determined by the use of an analysis-of-variance with repeated measures technique, and showed that the Inventory was a "reliable instrument which provided a reasonable degree of consistency."

Hardt, Dale V. Development of an Investigatory Instrument to Measure Attitudes Toward Death. Ph.D., Southern Illinois University, 1974.

A 20-item Thurstone Equal-Appearing Interval attitude scale was developed. Four methods were used to establish validity. Reliability was .87. Readability level was determined to be fifth grade level and above. An article about the scale's development, and the scale itself, will be found in the Journal of School Health 45:96-99, February, 1975.

Horvat, Robert Emil. Fifth and Eighth Grade Students' Orientations Toward the Environment and Environmental Problems. Ph.D., University of Wisconsin, 1974.

A battery of three validated and reliable instruments was developed to measure Environmental Orientations: 1. toward the present and future; 2. toward general and specific aspects of the environment and pollution; and 3. toward specific environmental problems. Semantic differential and Likert agree-disagree formats were used. Content validity was established through panel ratings. Environmental Orientations identified were both internally consistent (Hoyt .62-.97) and stable (4-6 days, test-retest .61-.85). The final Inventory was tested on 665 students in four communities.

Kussman, Bernadine L. Construction of a Health Knowledge Test in Community Health for the Second Educational Level. M.S.P.H., University of California, Los Angeles, 1967.

This test consists of 50 multiple choice items, designed for students in grades 4, 5 and 6. Validity was established by selecting items from authoritative health references, selecting objectives from the School Health Education Study, applying statistical procedures, and by a review of test and test items by an expert jury. The final test form was shown to be valid and reliable (.82).

Manalad-Sitompul, Dana. Measuring Cognitive Achievement in a Population Education Program Designed for Sixth Grade Pupils in the Philippines. Ph.D., University of Illinois, 1977.

Three test forms were developed, each consisting of 21 multiple choice items. The test is criterion-referenced. The final test forms were constructed after the use of a trial test and an extensive analysis of the functioning of individual test items.

National Safety Council. Bicycle Safety Information Test. Chicago: National Safety Council, (n.d.).

This is a 20-item true-false test suitable for use at the elementary level.

Osness, Donna L. The Development of a Criterion Referenced Comprehensive Health Knowledge Inventory for Elementary Grade Levels Four, Five and Six. M.S., University of Kansas, 1976.

This inventory consists of 80 multiple choice items, each with 5 distractors, and 20 matching items. Four major instructional concepts formed the basis for questions: physical health and safety, mental health, abusive behavior, and growth, development and life cycles. Items were devised to go beyond the recall of specific knowledge. Content validity was determined by judges; reliability was determined by the split-halves method and was .75 (mastery) and .84 (non-mastery). However, negative or no reliability was shown at the 4th and 5th grade levels due to an inventory readability level that averaged 7th grade. It is recommended, therefore, that the inventory be used at grade 6 and above. Refer to HPER Microform, No. 247f.

Robinson, Gretchen E. Selected Eating Habits, Attitudes and Nutrition Knowledge of Sixth Grade Pupils in Union County, Ohio. M.S., Indiana University, 1967.

A three part questionnaire was developed. Part I, 'My Food Habits,' consists of thirteen questions and was designed to discover specific food practices. Part II, 'What Do I Know?' attempted to discover students' knowledge about food and their ability to apply it. Part III, 'My Likes and Dislikes,' was designed to give an indication of the nutrition value of the customary food intake of the student.

Rubin, M. et al. "Development of an Instrument to Measure Effectiveness of Oral Health Education Curricula." The Journal of School Health, 48:108-10, February, 1978.

Two tests were constructed, each containing 20 multiple choice questions with four distractors. Ten test items were common to both tests. Content validity was established by basing the questions on the four major components of the dental health curriculum: tooth structure and supporting tissues; sugar, its role in the development of dental disease; plaque, its composition and identification; and prevention of dental disease. Test-retest reliability (Pearson) was .80 for Test A and .69 for Test B; alternate forms reliability was .68 (Pearson). The tests were used with fifth grade students. Sample test copies may be obtained from Milton Rubin, D.D.S., 245 Locust Street, Akron, Ohio 44302.

Spears, Irene K. Construction of a Health Knowledge Test in Growth and Development for the Second Educational Level. M.S.P.H., University of California, Los Angeles, 1967.

This study resulted in the development of a reliable and valid 40-item multiple choice test for grades 4-6. Each test item has four distractors. All items are based on the School Health Education Study concept, "Growth and development influences and is influenced by the structure and functioning of the individual." Test validity was established by selecting items from authoritative sources and by test review by a panel of experts. Test reliability was .79 (Spearman-Brown).

EVALUATION INSTRUMENTS
FOR JUNIOR HIGH SCHOOL STUDENTS

AAHPER Cooperative Health Education Test: Level III, Reading,
Mass.: Addison-Wesley Publishing Co., Inc., 1971.

Two test forms, of equal content coverage and difficulty, are available for grades 7-9. Each form contains 60 four-option multiple choice questions covering eleven health content areas. Validity was established. Reliability (KR 21) was determined to range from .87 to .94. Alternate form reliability ranges from .85 to .90. Norms are available, as is a handbook providing technical data concerning test development. Test administration time is 45 minutes.

Beitz, Dennis E. A Health Appraisal Questionnaire for Secondary Students. Ph.D., University of Utah, 1972.

The Health Appraisal Form (HAF) previously used at the University of Utah was revised so that it was appropriate for administration to seventh and tenth grade students. Validity of the questionnaire was established by comparing the results of 86 students' responses with the physician's physical examination of the same students. Questionnaire reliability was .88 (Pearson). The writer suggests that the usefulness of the questionnaire in identifying individual students for clinical purposes was somewhat doubtful, but that it could be useful in future research concerning the general health status of a group.

Calsbeek, Frank. Construction and Validation of a Health-Career Knowledge Test for Ninth Grade Students. Ed.D., University of Oregon, 1972.

The 60 multiple choice items in this test focus on 35 different health careers, with training required ranging from varied on-the-job training periods to several years of college study and professional school. All test items met satisfactory criteria of curricular and statistical validity. Reliability was determined by three procedures: .72 (Pearson), and .83 (Spearman-Brown and KR) for the total population. Reliability was also determined for boys and girls separately. A test manual and norms are available from Dr. Calsbeek at Jower's Center (H.P.E.), Southwest Texas State University, San Marcos, Texas 78666.

Donaldson, Nancy Louise. An Investigation of the Meaning of Selected Health Concepts Through Use of the Semantic Differential Technique. M.S., California State University, Northridge, 1970.

This study was conducted to determine whether the meaning of selected health concepts was different for Mexican-American and non-Mexican American students and whether health instruction changed

the meaning of the concepts. The concepts selected for use were three diseases and concepts related to people who may contract these diseases. A version of the semantic differential technique was used to measure the meaning of the concepts. The subjects used in the study were junior high school students.

Fulton, Martin William. A Traffic Safety Attitude Scale for 9th Grade Students. H.S.D., Indiana University, 1965.

Two attitude scales were developed, each consisting of situation-response items. The boys' scale consists of 40 items; the girls' contains 32. All were developed on the basis of eight traffic safety areas deemed important by the National Commission on Safety Education of the NEA. Reliability coefficients for the two forms are .86 for boys and .69 for girls. Norms were developed. Test administration time is an hour.

Haff, Robert S. A Survey of Parent-Child Attitudes and Opinions Toward Family Life Education. M.S., University of Illinois, 1971.

A self-administered questionnaire was developed, to be used by ninth and twelfth grade students and their parents. Included are such topics as the role of school, home and church, when teaching should begin, what should not be taught, instructor qualifications, and others.

Hardt, Dale V. Development of an Investigatory Instrument to Measure Attitudes Toward Death. Ph.D., Southern Illinois University, 1974.

(See "Elementary" Section.)

Harich, Mary F. Attitude Changes Among Ninth Grade Girls Following Instruction in the "Development of Healthy Sexuality." M.S., University of Maryland, 1969.

This instrument consists of 24 scaled (1-7) bipolar adjectives. Administration time is 30 minutes.

Hong, Priscilla Chong. Construction of Test Items to Evaluate the Health Knowledge of Seventh Grade Pupils in the Los Angeles City Schools. M.A., California State University, Los Angeles, 1965.

This test consists of 50 multiple choice items, each with four distractors. Three content areas are represented by ten questions each: Personal Health for Total Fitness, Health Services and Products, Safety and Emergency Care; the fourth area has 20 questions on Growth and Development. These are the four areas contained in Health I, the seventh grade course of study. Content validity was determined by health education supervisors and health science supervisors, and accuracy checked by a physician. Following administration of a trial test and item analysis, the 50 items which met selected criteria of difficulty value and bi-serial correlation were retained for the test. Test reliability was not determined. The writer states that the 50 items retained could be used in the construction of a standardized test for the Los Angeles City Schools.

Horan, John, and John Swisher. Drug Attitude Scale. Addictions Prevention Laboratory, The Pennsylvania State University. n.d.

This is a fourteen-item instrument; respondents indicate the extent of their agreement or disagreement with each of the items.

Jackson, Vicki D. The Development of a Behavioral Inventory for Assessing Self-Reported Use of Selected Consumer Health Products. Ph.D., Southern Illinois University, 1977.

An instrument was constructed to assess self-reported use of over-the-counter toiletries/cosmetics, drugs and health devices. The third draft of the Consumer Health Products Inventory consisted of 166 items: 59 cosmetics/toiletries, 72 drugs and 35 health devices. Content validity was .86; reliability was .93 (split half) and .94 (KR). Administration time is approximately 15 minutes. The writer suggests that the instrument may be administered as a whole or as separate categories.

Johnson, Steven Derrick. The Prevalence of Certain Nutrition Misconceptions Among Seventh, Ninth and Twelfth Grade Students. M.S., State University of N. Y., College at Cortland, 1977.

This thesis involved an adaptation of Osman's Nutrition Information Test. It was shortened, reworded (to help overcome current student reading problems) and revalidated by an expert jury. Reliability was determined to be .84, .90 and .77 for the seventh, ninth and twelfth grades, respectively. There are 63 statements of the True-False-Don't-Know type in the test, and mean administration time was 12.5 minutes. For further information, refer to Health Education, 8:36-38, May/June, 1977.

Kilander, H. Frederick. Information Test on Human Reproduction. 3rd ed., Staten Island, New York: Dr. Glenn Leach, Wagner College, 1968.

This 33-question multiple choice test is for junior high school through college levels. Norms are available. Single copies may be obtained free from Dr. Leach. The test is included in the Teacher's Manual of Kilander's School Health Education, 2nd ed., The Macmillan Co., 1968.

Kilander, H. Frederick, and Glenn C. Leach. Information Test on Drugs and Drug Abuse. 4th ed., Ridgewood, N.J.: Dr. Glenn Leach, 116 N. Pleasant Avenue, 1974

This 30-item multiple choice test is for junior high school through college levels. Norms are available. Single copies may be obtained free from Dr. Leach.

Kilander, H. Frederick, and Glenn C. Leach. Nutrition Information Test. 5th ed., Ridgewood, N. J.: Dr. Glenn Leach, 116 N. Pleasant Avenue, 1968.

This 33-question multiple choice test is for junior high school through college levels. Norms are available. Single copies may be obtained free from Dr. Leach. The test is included in the Teacher's Manual of Kilander's School Health Education, 2nd ed., The Macmillan Co., 1968.

Ladner, Linda Rae. Development of a Smoking Knowledge Test for Junior High School. M. S., University of Illinois, 1968.

Forty-seven multiple choice questions were developed, dealing with knowledge about smoking. Reliability (KR 20) is .681; KR 21 is .625. The author reports that a number of test items need to be revised, and recommends that the test not be used until revisions take place. For further information see University of Oregon HPER Microform, No. HE 114.

Levy, Susan H. The Development of a Mood-Modifying Substances Knowledge Test for Junior High Youth. M.S., University of Illinois, 1970.

This instrument was developed to assess student knowledge in the drug-alcohol-tobacco areas, and was based on the content of the N.Y. State Curriculum Materials in Health Education, Strand II. Test readability was seventh grade level. The test instrument was administered to a trial group, analyzed, and revised, then administered to a second group, analyzed and revised. Reliability is .699 (KR 20) and .626 (KR 21). The author notes that the final instrument seems to be slightly easy, has a number of items that need revision, and should be administered to a larger sample group before it can be recommended for group measurement purposes.

Love, Willard W. A Projective Technique for Measuring Smoking Attitudes Among Junior High School Students. M.A., California State University, Los Angeles, 1968.

This test contained eight pictures, each of which represented a situation in which a student would have a definite reaction. In each of the situations, someone was smoking a cigar, pipe, or cigarette. Students were tested in groups of five; responses were on a 1-10 scale, with one being a strong attitude favoring smoking and ten being a strong attitude against smoking. Scores were averaged to obtain an Attitude Index for each student.

McGinty, Alice. A Comparative Study of Alcohol and Tobacco Knowledges with Practices Among 520 Junior High School Girls. M.S., California State College at Los Angeles, 1965.

A 28 statement true-false smoking questionnaire was developed by the author. Alcohol knowledge was determined by using the Pennington, Dempsey, Passey Scale for the Assessment of Knowledge Concerning Alcohol and Its Use (Montgomery, Ala. Commission of Alcoholism, n.d.).

Nethers, Gloria Jean. The Development of a Nutrition Knowledge-Attitude Test for Junior High School. M.S., University of Illinois, 1968.

This test includes 40 multiple choice knowledge items and 21 attitude scale (Likert-type) items. Seven different nutrition areas are included, such as misconceptions, food and weight control, food and disease, nutrients, environmental influences on food choices. Recommended test construction procedures were followed in the test's development. Content validity was determined by basing test questions on an outline for a specific course and the administration of the test to the students enrolled in the course. Textbook references and authoritative opinions were also utilized. Test reliability was .57 (KR 21). The author recommends further test revision to improve item and distractor functioning.

Nowack, Dorothy. The Effects of a Health Education Program on the Knowledge, Attitudes and Decision Making Skills of Eighth Graders. Ph.D., University of Maryland, 1972.

Two test instruments were developed for and used in this study: You Are a Decision Maker and Attitude Scale. You Are a Decision Maker consists of 10 problem situations that might be experienced by students, relating to suspected V.D., consumer health, family relations, smoking and others. Students are asked to select from five options the decision they would make in each situation. In addition, they are asked to indicate how they feel about their decision-making skills. The Attitude Scale consists of 20 Thurstone-type items related to some areas included in health education

programs--sex education, drugs, death, nutrition, and others. Contact the author at the Lehigh Valley Area Health Education Center, 2171 - 28th Street, SW, Allentown, Pa. 18103 for further information.

Osness, Donna L. The Development of a Criterion Referenced Comprehensive Health Knowledge Inventory for Elementary Grade Levels Four, Five and Six. M.S., University of Kansas, 1976.

(See "Elementary" Section.)

Plummer, Portia F. Attitudes Toward Use of Marijuana of Freshmen and Senior Students in Four Selected Hamilton County High Schools. H.S.D., University of Indiana, 1977.

A Likert-type attitude scale was developed by the investigator and validated by a jury of experts. A pilot study provided additional data for refining the instrument. Reliability coefficients were as follows: .94 (Pearson), .97 (Spearman-Brown) and .96 (Cronbach Alpha).

Swanson, Jon C. Development of an Instrument to Measure Attitudes and Beliefs About Smoking. M.S., University of Illinois, 1969.

This instrument, for junior high students, combined features of a semantic differential scale and a summated ratings scale. Included are 20 items from the University of Illinois Attitude-Belief Scale and 20 noun forms of those items. Students respond by indicating how good/bad or probable/improbable each statement was believed to be. The instrument was found to be capable of distinguishing between the attitudes and beliefs of smokers and non-smokers on the basis of differences in their scores. For further information, see University of Oregon HPER Microform, No. HE 146.

U.S. Public Health Service. National Clearinghouse for Smoking and Health. Teenage Self Test: Cigarette Smoking. DHEW Publication No. (CDC) 76-8723. 1975.

This self-test allows a person to indicate responses to a series of statements about smoking, and then compare responses to those of "average" teenagers. The test areas include effect of smoking on health, non-smoker's rights, positive effects of smoking, manufactured reasons for smoking, reasons for starting, are teenage smokers "bad"?, feeling toward authority, and can I control my future? The responses were determined through a survey of 7000 teenagers.

Vencel, Steve A. Veneral Disease Education in Indiana Secondary Public Schools. H.S.D., Indiana University, 1965.

A 75-item multiple choice test is designed for use in grades 9-12. Thirty test items are concerned with venereal disease; 45, with other diseases. VD test items were developed with the aid of an expert jury consisting of 15 experienced teachers, school administrators, school nurses and physicians.

Vincent, Raymond J. An Investigation of the Attitudes of Eighth, Tenth and Twelfth Grade Students Toward Smoking Marijuana. Ph.D., Southern Illinois University, 1968.

An equal-appearing interval scale was constructed, consisting of 20 attitude statements of .2 intervals on a continuum of 1.1 to 4.9. The scale can be administered and "scored" easily and quickly. Reliability (Spearman-Brown) was determined to be .94. Validity was established by the use of 20 judges in selecting the statements and by offering evidence of empirical validity. For further details, see "A Scale to Measure Attitude Toward Smoking Marijuana" in the Journal of School Health, 40:454-56, October, 1970.

EVALUATION INSTRUMENTS
FOR SENIOR HIGH SCHOOL STUDENTS

Attwood, Madge L. Construction of an Instrument for Evaluating Drug Abuse Knowledge in High School Students. M.S.P.H., University of California, Los Angeles, 1968.

The one test form which was developed consists of 33 multiple choice, 13 matching, and 4 two-choice items.

Beckett, William W. A Health and Safety I Knowledge Test for Students at San Gabriel High School. M.A., California State University, Los Angeles, 1971.

This test, for tenth grade students, consists of 70 multiple choice questions with four alternatives each. Curricular validity was assured by constructing a table of specifications in accordance with course content areas. Test items also were constructed in relation to course objectives. Areas included are: Disease Prevention, Individual and Family Growth and Development, Nutrition, Personal Health, Community and Environmental Health. Two test forms were developed and administered. Reliability was .84 and .81 (KR 20). The final test form consisted of 70 items which met selected criteria and had an item difficulty range from 10 to 60 percent. Reliability of the final form was not determined. Test administration could be completed within a 53 minute class period.

Beitz, Dennis E. A Health Appraisal Questionnaire for Secondary Students. Ph.D., University of Utah, 1972.

(See "Junior High" Section.)

Bell, Alden B. A Health and Safety Knowledge Test for the Tenth Grade. M.A., California State University, Los Angeles, 1969.

The final form of this test contained 60 multiple choice, best-answer type questions, with 5 alternatives. Curricular validity was based on an analysis of textbook and materials used in the course for which the test was developed. Seven major areas were included on the test. Two preliminary test forms were developed and items which met selected criteria were chosen for the final test form. Item difficulty range was from 10 to 90 percent; all item distractors functioned at a minimum level of 3 percent.

Benson, Brenda C. The Construction and Administration of a Knowledge Test Regarding the Use of Alcoholic Beverages for High School Students. M.A., Texas Woman's University, Denton, 1967.

A 76-item multiple choice knowledge test (now known as the Smith Alcohol Knowledge Test) was developed. Question topics included physical and psychological effects, treatment and prevention, socio-economic factors, and others. Items were validated by a group of experts in alcohol education and/or rehabilitation. Split-half reliability was determined. See ERIC Microfiche, #ED 053 220.

Bjerke, Richard A. Relationship Between Self-Appraised Health Knowledge and Tested Health Knowledge in Selected Eleventh Grade Students. M.S., University of Washington, 1966.

This self-appraisal health knowledge questionnaire contained 75 items. Ten different health content areas were included. In responding to each item, students were asked to rate their knowledge as None, Little, Adequate or Considerable. In determining the relationship between tested health knowledge and self-appraised knowledge, the LeMaistre-Pollock Health Behavior Inventory was used.

Buscho, Ardon E. The Knowledge and Attitudes of Students, Parents, and Teachers in a Rural Iowa Community Concerning Four Controversial Health Areas. M.S., Mankato State College, 1966.

Respondents were asked to indicate their knowledge, attitudes, and judgment concerning curriculum content in relation to smoking, alcohol, sex education, and public health. Parts I and II (knowledge and attitudes) contain 18 questions regarding each of the four areas. The curriculum part (III) contains a total of 20 questions.

Dann, Roscoe James. The Development of a Family Health Knowledge Test. M.S., University of Illinois, 1965.

This test consists of 63 multiple choice items; 27 are of the standard type with 4 or 5 distractors. The remaining items involve the interpretation of charts and graphs concerning such topics as the menstrual cycle and growth. Test validity was established by basing the test on the teaching-learning guide, health education textbooks, and related literature. Reliability was determined to be .73 (KR 21). Test scores were negatively skewed. Although the author recommends extensive revision of the instrument, it presents interesting and unique ideas for the testing of knowledge, problem solving and creative abilities. See The Journal of School Health, 36:450-53, November, 1966.

Evans, Shirley G. A Health Knowledge and Attitude Inventory for Minority Students. Dr. P.H., University of California, Los Angeles, 1974.

This health knowledge and attitude inventory was designed for tenth grade minority students. Test format is multiple choice.

Fast, Charles G., and Harry L. Tyson. Fast-Tyson Health Knowledge Test. Kirksville, Mo.: Charles G. Fast, 1975.

This 100-item multiple choice question test was designed for high school students and college freshmen. Ten health content areas are included. Two methods were used to determine reliability for college students, yielding .73 and .83. Reliability for high school students is .70. Validity was determined by experts. Norms are available. Contact Dr. Fast at Northeast Missouri State University, Kirksville, Mo. for further information.

Haff, Robert S. A Survey of Parent-Child Attitudes and Opinions Toward Family Life Education. M.S., University of Illinois, 1971.

(See "Junior High" Section.)

Hardt, Dale V. Development of an Investigatory Instrument to Measure Attitudes Toward Death. Ph.D., Southern Illinois University, 1974.

(See "Elementary" Section.)

Horan, John, and John Swisher. Drug Attitude Scale. Addictions Prevention Laboratory, The Pennsylvania State University. (n.d.)

(See "Junior High" Section.)

Hotzclaw, W. Lou. The Construction and Administration of a Venereal Disease Knowledge Test for High School Students. M.A., Texas Woman's University, 1968.

The Venereal Disease Knowledge Inventory consists of 91 5-option multiple choice items. It was validated by experts in public health, medicine and venereal disease education, and by reviews of texts, and professional journals. Reliability is .78 (KR). Test length is approximately 45 minutes.

Jackson, Vicki D. The Development of a Behavioral Inventory for Assessing Self-Reported Use of Selected Consumer Health Products. Ph.D., Southern Illinois University, 1977.

(See "Junior High" Section.)

Johnson, Steven Derrick. The Prevalence of Certain Nutrition Misconceptions Among Seventh, Ninth and Twelfth Grade Students. M.S., State University of N.Y., College at Cortland, 1977.

(See "Junior High" Section.)

Kilander, H. Frederick. Information Test on Human Reproduction. 3rd ed., Staten Island, New York: Dr. Glenn Leach, Wagner College, 1968.

(See "Junior High" Section.)

Kilander, H. Frederick, and Glenn C. Leach. Information Test on Drugs and Drug Abuse. 4th ed., Ridgewood, N.J.: Dr. Glenn Leach, 116 N. Pleasant Avenue, 1974.

(See "Junior High" Section.)

Kilander, H. Frederick, and Glenn C. Leach. Nutrition Information Test. 5th ed., Ridgewood, N.J.: Dr. Glenn Leach, 116 N. Pleasant Avenue, 1968.

(See "Junior High" Section.)

Kosloff, Ira K. Development of a Health Knowledge Test and Test Manual for Suburban Southern New Jersey High School Seniors. Ed.D., Temple University, 1974.

This test consists of 50 multiple choice items, and has norms established for each sex, based on a sample group of approximately 300 male and 300 female high school seniors. The fifty items were selected from an original pool of 140 items, after use of a preliminary test form, item analysis and judges' ratings. Reliability (KR 20) is .871. Test items are keyed to a correlated list of instructional objectives and to the various levels of cognition.

Leach, Glenn C. Kilander-Leach Health Knowledge Test. Ridgewood, N.J.: Dr. Glenn C. Leach, 116 North Pleasant Ave., 1975.

This test consists of 100 multiple choice items covering nine different health areas. Total administration time is 45-50 minutes. Reliability coefficients (Spearman-Brown) are .80 for college freshmen and .83 for high school seniors. The 1972 edition of this test is the latest revision of one of the oldest tests covering a variety of content areas. Norms are now based on over 100,000 individual scores, but it should be noted that the test has been revised or questions modified during this time.

Lussier, Richard R. Construction of a Growth and Development Health Knowledge Test for the Fourth Educational Level. M.S.P.H., University of California, Los Angeles, 1967.

This study resulted in the development of a 60-item multiple choice test covering the scope of the five level-four objectives of Concept I of the School Health Education Study. This concept was: "Growth and development influences and is influenced by the structure and

functioning of the individual." Each test item has five distractors. Test validity was established by using scientific and expert sources to gather the data for the pool of test items, using a panel of experts to judge the test items, and by a variety of statistical procedures. Test reliability was .91 (Spearman-Brown). The writer suggests that the test may be used to determine a high school graduate's knowledge of growth and development.

McHugh, Gelolo. Sex Knowledge Inventory, Form Y. Revised. Family Life Publications, Inc., Box 427, Saluda, N.C., 1977.

This inventory measures understanding of the human reproduction system and vocabulary relating to sex. It is suggested that this form could be used at high school, college and adult levels. An instructor's manual and norms are available.

McHugh, Gelolo. A Venereal Disease Knowledge Inventory. Saluda, N.C.: Family Life Publications, Inc., 1966.

This is a 52-item multiple choice teaching test. High school and college norms and a teacher's guide are available.

National Assessment of Educational Progress. Basic Life Skills Assessment Items. Denver: NAEP, Dept. of Field Services, 1860 Lincoln Street, 1977.

These items were designed to measure achievement of 17 year olds in the following areas: personal finance and consumer protection skills, health maintenance skills, interpersonal skills, family responsibility skills, career development skills. Items in these five areas are distributed throughout six test "packages." A school could select desired items from all six packages and combine them. A Guide to the assessment procedure is available. It includes directions for replicating national assessment, objectives of each of the skill areas, a table of items to identify specific skill items in each package, and answer keys. Results of NAEP's national assessment of these skills in 1977 are available on an item-by-item basis for all 17 year olds in the 11th grade, for all 17 year olds, for each sex, and for regions of the country (north-east, southeast, central, west).

O'Rourke, Thomas. "Test-Retest Reliability of the University of Illinois Smoking Survey Instrument," Journal of Drug Education, 2:119-24, June, 1972.

This instrument was developed by the University of Illinois anti-smoking research team and the staff of the Clearinghouse for Smoking and Health during the summer of 1966. It was based upon an instrument used by Horn in his 1958 studies in Portland. The Illinois survey instrument consists of 88 items, including 44 questionnaire items and 44 attitude-belief items. The latter is a

Likert-type scale to which a student responds in terms of the strength of his agreement or disagreement. The instrument was administered to high school students and reliability was determined by the test-retest method; males .85, females .89 and total group .87 (Pearson).

Plummer, Portia F. Attitudes Toward Use of Marijuana of Freshmen and Senior Students in Four Selected Hamilton County High Schools. H.S.D., University of Indiana, 1977.

(See "Junior High" Section.)

Pollock, Marion B. The Construction of an Evaluation Instrument to Appraise Behavior in the Use of Stimulants and Depressants. Ed.D., University of California, Los Angeles, 1966.

Mood Altering Substances: A Behavior Inventory is composed of two parts. Part I is a self report, 20-item questionnaire designed to reveal the extent to which the substances of concern are being used among the group being tested. Part II appraises the students' knowledge about these substances and their effects, and consists of 50 5-option multiple choice questions. The Inventory can be completed within a 50 minute class period. Key concepts, supporting concepts, and instructional objectives were developed as a basis for the construction of the Inventory. It should be noted that this is a criterion referenced inventory. Reliability (Spearman-Brown) was determined to be .68. For further information refer to ERIC Microfiche #EJ 024 924 or HPER Microform, No. HE 102.

Sandidge, Phyllis N. A Health Problems Inventory for High School Students. H.S.D., Indiana University, 1969.

A Health Problems Inventory consisting of 190 health related problem situations was constructed, using current health texts, related studies, and personal field experiences. The situations studied were in five major problem areas: Home Environment, Boy-Girl Relationships, Psychological, Physiological and Occupational problems. Students responded to each item by indicating whether or not the existence of the situation presented a problem to them never, rarely, sometimes, often, or always. Faculty members were asked to respond to the same situations by expressing their awareness of the problem and the frequency of student encounter, using the same scale. For further information, see HPER Microform, No. HE 144.

Seffrin, John R. A Revision of the Dann Family Health Knowledge Test. M.S., University of Illinois, 1967.

This is a 59-item multiple choice item test, with each item having four distractors. Twenty-three of the items are of the traditional multiple choice type; the remainder involve the student in analysis and interpretation of charts, diagrams, etc., and responding to

questions based on them. The curricular validity of the test had previously been determined by experts and by the use of a table of specifications; the test was developed to evaluate the "family" concept of the School Health Education Study. The Seffrin revision has a reliability of .72 (KR 21); items ranged in difficulty from .14 to .85. The author recommends still further revision of a number of items, due to poor discrimination and semantics problems involved in some of the non-traditional type items. Eleventh grade students made up the tryout group.

Seffrin, John R. A Standardized Achievement Test of Health Education Objectives in the Cognitive Domain. Ph.D., Purdue University, 1970.

This test consists of 70 items, of which 62 are multiple choice. The questions are based upon the 10 concepts of the School Health Education Study as content areas and four levels of cognition (knowledge, comprehension, application, analysis) as educational objectives. A test difficulty index of .48 and a reliability coefficient of .87 (KR 20) are among the statistical analyses available. Percentile rank and T-score norms were computed for inclusion in a test manual designed to accompany the final test form. Refer to The Journal of School Health, 42:43-7, January, 1972.

Simpson, Janet E. The Development of an Attitude Inventory for Mood-Modifying Substances. M.S., University of Illinois, 1970.

A 92-item Likert-type scale was developed to assess the attitudes of senior high school students toward alcohol, tobacco and drugs. The Inventory contains 31 alcohol items, 26 tobacco items, 33 drug items, and 2 general items. It was determined that the instrument constituted an attitude scale sufficiently reliable (.895 test-retest) for assessing group differences in attitudes toward mood-modifying substances, and that each of the three subscales--alcohol, tobacco and drugs--is also sufficiently reliable for assessing group differences.

Snyder, Phyllis M. An Instrument to Appraise Student Knowledge, Attitudes and Practices Relating to Environmental Health. Dr. P.H., University of California, Los Angeles, 1972.

A valid and reliable instrument was constructed to appraise the knowledge, attitudes and practices of high school and college students relating to certain environmental health issues. Test items were submitted to a panel of experts for appraisal and were given a trial administration prior to the development of the final instrument. Reliability (Spearman-Brown) was determined to be .936 for practices, .958 for attitudes, and .784 for knowledge.

Stauffer, Delmar J. A Revision of the Creswell Consumer Health Knowledge Test. M.S., University of Illinois, 1967.

The Creswell test was originally developed to be used in evaluating the effectiveness of experimental materials of the School Health Education Study. The Stauffer revision was developed for evaluation of revised SHES materials. Test item development was based upon a table of specifications and an analysis of the original test. The revised test contains 58 multiple choice items, each with four distractors. Test reliability was .69 (KR 21). The author noted that the distribution of scores indicated that the test was generally too easy, and that a number of items needed further revision. This test contains some non-traditional test items, using graphs, charts, and other techniques to evaluate some of the higher level cognitive abilities.

Stephens, Gale E. Prevalence of Harmful Health Misconceptions in Colorado High School Seniors. Ed.D., University of Colorado, 1970.

An 85-item Health Opinionnaire was developed, with nine health areas included. A jury of experts validated the misconceptions. For further information refer to The Journal of School Health, 41:161-63, March, 1971.

U.S. Public Health Service. National Clearinghouse for Smoking and Health. Teenage Self Test: Cigarette Smoking. CHEW Publication No. (CDC) 76-8723. 1975.

(See "Junior High" Section.)

Vencel, Steve A. Venereal Disease Education in Indiana Secondary Public Schools. H.S.D., Indiana University, 1965.

(See "Junior High" Section.)

Vincent, Raymond J. An Investigation of the Attitudes of Eighth, Tenth and Twelfth Grade Students Toward Smoking Marijuana. Ph.D., Southern Illinois University, 1968.

(See "Junior High" Section.)

Welsh, Mary M. Student-Felt Need in Content Areas of Instruction in Family Living and Sex Education. Ed.D., Columbia University, 1971.

The final instrument used in this study was a 110-item checklist with a three point intensity rating scale. Included on the checklist were areas of social, emotional and ethical concerns, as well as human physiology and reproduction.

West, Norman W. The Effect of Instruction in Family Planning on Knowledge, Attitudes and Behavior of London (Ontario) Senior Secondary Students. Ph.D., The Ohio State University, 1976.

A 94-item questionnaire was developed and used in this study. The questionnaire consists of four parts: Part 1 (12 items) gathers personal and background information about the students; Part 2 (22 items) is a multiple choice test of knowledge about human physiology, anatomy and contraception; Part 3 (22 items) is an attitude scale related to family planning, and Part 4 (38 items) gathers information and opinions from the students. Subjects used in this study were senior high school students in the London, Ontario public school system.

Yeakle, Myrna A. The Development of a Community Health Knowledge Test for Senior High School Students. M.S.P.H., University of California, Los Angeles, 1968.

This 49-item multiple choice test was based on the behavioral objectives of the community health concept of the School Health Education Study as stated in 1967. (The concept was later revised.) Validity was established through the use of juries; reliability was .75 (KR 20). Average item difficulty was below the desired average of .50 and discrimination indexes were under acceptable norms for 26 items. Following statistical analysis, a final test form was prepared.

EVALUATION INSTRUMENTS FOR
COLLEGE STUDENTS AND NONSTUDENT GROUPS

Allen, Edward Leon. The Development of an Instrument to Identify the Attitudes of College and University Students Concerning Alcohol, Marijuana and Speed. Dr. P.H., University of California, Los Angeles, 1976.

Opinions about the three drugs were solicited from students in three Southern California universities. Statements of opinion were collected and condensed to 150 statements or opinions. Fifteen judges, representing the fields of drug education, drug law enforcement and drug rehabilitation, then sorted the statements into eleven categories ranging from appreciative to depreciative. The statements were then analyzed to determine their scale-value and Q-value. A final selection of 66 items was made so that each of the drugs was represented by 22 statements. The reliability of the final 66 items was computed to be a probable error of .025 scale units.

Baum, Robert A. A Health Practice Inventory to Identify the Health Education Needs of Unmarried Undergraduate College Students. H.S.D., University of Indiana, 1972.

A Health Practice Inventory, consisting of 109 items, was developed, with acceptable health practices organized into 13 health areas. Students respond by indicating the frequency of a practice, i.e., Never, Rarely, Occasionally, and Regularly. Reliability coefficients of .96 (Pearson) and .87 (Cronbach Alpha) were determined.

Behr, Mary T. Tests to Assess the Oral and Dental Knowledge of Community College and Four-Year College Students. H.S.D., Indiana University, 1975.

Two 51-item multiple choice tests were developed, one for community colleges and one for four year colleges. The reliability (KR 20) was .79 for the community college sample and .81 for the four year college sample.

Blackburn, Robert R. The Construction and Standardization of a Health Knowledge Test for College Students. Ed.D., George Peabody College for Teachers, 1968.

This test consists of 90 items, developed with the analogy form of question. Each question has four alternate responses. The test is designed to test the health knowledge of students who have completed a basic college health course, so a variety of health areas are represented. The final test was determined to be valid and reliable (.86) by the test-retest method, and national norms were established.

Boone, Joy L. The Development of a Scale to Measure Career Attitudes of Allied Health Students. Ed.D., University of Houston, 1976.

This Allied Health Career Attitude Scale was designed to be used with students in four professional groups: medical records administration, medical technology, occupational therapy and physical therapy. It measures attitudes in relation to the following: Motivation to participate in professional organizations, regulation by peers within the profession, calling to the field based on the value to society, commitment to lifelong practice in the profession, and satisfaction with career choice.

Brennan, Andrew J. J. Development of an Objective Knowledge Test Instrument in the Field of Environmental Health. Ph.D., The University of Wisconsin, Madison, 1975.

An instrument consisting of 100 multiple choice items was developed. Each item contained four alternative responses. The purpose of this instrument is to measure the knowledge of prospective health education teachers. Test items were based on Strands IV and V of the New York State Dept. of Education curriculum guides. Reliability coefficient was .868 (KR 20).

Brown, Iris G. The Development and Administration of a Sickle Cell Awareness Instrument. Ed.D., University of Tennessee, 1972.

An interview questionnaire instrument was developed. It is judged suitable for use among predominantly black, nonmedical, civic and social groups in determining awareness of sickle cell disease. The instrument is objective in evaluating sickle cell awareness when administered by persons who have been trained in the interview questionnaire technique with laymen similar to those interviewed in the study. Curricular validity was high; statistical validity was .841. Reliability was .859.

Burhans, Linda Kay. A Health Knowledge Test for Prospective School Health Educators. Dr. P.H., University of California, Los Angeles, 1974.

The multiple choice test questions are based upon competencies required for the California Health Science Specialist Credential, the Framework for Health Instruction in California Public Schools, and other texts and tests. The final form of the test resulted from statistical analysis and suggestions of a panel of experts. Reliability coefficients ranged from .61 to .76, using three different methods. Subjective validity was established by a panel of experts.

Bush, Herman S. A Health Analogies Pretest for a Basic College Health Course. H.S.D., Indiana University, 1969.

This test consists of 100 questions in the analogies format. The questions represent 7 health areas and 35 sub-areas. The final form of the test provided the basis for establishing norms for students enrolled in basic health courses in Kentucky. Curricular validity was established by textbook analysis and judgment of experts. Reliability was determined to be .92 (KR) and .91 (Spearman-Brown). Reliabilities were also determined for men and women separately. Refer to University of Oregon OPER Microforms, No. HE 133.

Campbell, Donald A. A Study of the Preventive Health Behavior of a Group of Men with Increased Risk for Development of Coronary Heart Disease. Ph.D., The Ohio State University, 1971.

In carrying out this study three Likert-type scales were developed to assess beliefs concerning the threat posed by a heart attack and the perceived benefits of selected preventive measures in reducing the threat. A questionnaire containing these scales was distributed among the study population prior to the initiation of screening tests.

Casperson, Donald George. A First Aid and Emergency Care Knowledge Test for College Students. H.S.D., Indiana University, 1970.

Two equivalent 86-item tests, FA and FB, were developed. A jury of 31 college first aid instructors was used in determining the table of specifications for the examination. Final test forms were administered to 3355 students at 24 colleges and universities. The tests were judged to be valid and reliable.

Chipman, Donald A. The Attitudes, Behaviors and Characteristics of Students at Macalester College, with Respect to the Use of Illicit and Exotic Drugs with Particular Emphasis on Marijuana. Ph.D., University of Minnesota, 1971.

The research instrument for this study consisted of a 21-page questionnaire designed to elicit information about attitudes, behaviors and characteristics of members of the sample group. The differences that might exist between various levels of marijuana users and non-users were examined.

Churchman, David. Validation of a Drug Abuse Scale and Comparisons of Knowledge and Attitudes about Drug Abuse among College Students. Paper presented at the Annual Meeting of the American Educational Research Association, 1975.

This instrument consists of 39 multiple choice items and 40 Likert scale items. Topics included are terminology and street terminology,

medical uses of drugs, the drug world and drug effects. Reliability is .76 (KR 20). Refer to ERIC Microfiche No. ED 117 123.

Cissell, William B. The Relationship Between Students' Attitudes Toward and Use of a Student Health Service. M.P.H., University of California at Los Angeles, 1970.

In carrying out this study, an inventory was constructed and administered to 700 volunteers who were identified as users of the Student Health Service. The inventory included two attitude scales, direct questions to elicit quantitative information about use, number of health courses completed, distance students resided from the Health Service, length of attendance, and an Index of Social Position.

Costello, Gerald E. The Construction and Standardization of an Instrument Designed to Measure the Knowledge of Male and Female First and Second Year College Students in the Area of Human Sexuality. Ed.D., Temple University, 1974.

This test consists of 60 four-distractor multiple-choice type items. The original form was administered to students and then revised; then administered to 809 students. The mean, median, standard deviation and range are provided. The reliability, determined by the Spearman-Brown formula, was shown to be .8051. Curricular validity was established by the use of textbooks and a panel of judges. Norms, in the form of percentile ranks and T-scores were computed. In addition to being reliable and valid, the test is judged easy to administer and interpret.

Doran, Peter Cobb. A Comparison of Programmed Self-Testing Inventories in Televised College Health Instruction. Ph.D., Southern Illinois University, 1966.

A ten unit series of programmed self-testing inventories was created. It consisted of 80 best-answer multiple choice test items drawn selectively from validated introductory health knowledge tests and then subjected to pre-testing. Two different methods of administration of these items were used to compare the effectiveness of three teaching techniques used with a televised health education course.

Eells, Kenneth. Student Attitudes and Practices with Respect to Marijuana and LSD. Ph.D., Stanford University, 1965.

This questionnaire contains 27 multiple choice items, including topics such as drug use practices, plans for future use, reasons for using/not using and attitudes toward marijuana and LSD and their legal control. The questionnaire is untimed.

Faeth, Geraldine A. A Modified Projective Instrument for Measuring Attitudes with Respect to Drugs. M.S., University of Illinois, 1971.

The instrument developed in this study consisted of a series of slides that were designed to elicit drug attitudes by employing a modified projective technique. In addition, Likert scale attitude items were developed and incorporated into the instrument design. The instrument yielded reliability coefficients of .90 on the pre-test and .80 on the post-test. Validity was established by judges.

Fast, Charles G., and Harry L. Tyson. Fast-Tyson Health Knowledge Test. Kirksville, Mo.: Charles G. Fast, 1975.

(See "Senior High" Section.)

Fink, Stanley C. Community College Drug Use, User and Nonuser Characteristics and Attitudes. Ph.D., The University of Oregon, 1974.

The writer developed a 77-item questionnaire, based on questionnaires used by earlier investigators of drug use in four-year and graduate institutions. The questionnaire was submitted to a test-retest analysis of reliability and it was found to be high (90.91 percent).

Fuller, Daniel Royce. Construction of a Family Life Knowledge Test and the Relationship of Selected Factors to the Test Scores. Ed.D., University of Arkansas, Fayetteville, 1967.

This 77-item multiple choice test consists of nine parts, including such topics as reproduction, pregnancy, childbirth, infant care, family economics, and sexual needs and hygiene. Test validity was established by a jury of experts in health education and research, medicine and sociology. Whole test reliability was determined to be .96 (Pearson). Refer to HPER Microform, No. HE 111.

Gaines, Mary Josephine. Consumer Health Misconceptions. Ed.D., Stanford University, 1967.

This 93-item consumer health opinionnaire includes such content areas as consumer legislation and protection, weight reduction, exercise and fitness, mechanical devices, and medical ethics. In the development of the opinionnaire, test items were evaluated by fourteen consumer health experts. Items were administered to an initial student group for the purposes of determining item discrimination, difficulty, and test reliability. A revised instrument resulted from these procedures.

Gebhardt, Mary E. Drug Education Needs of the Non-Institutionalized Elderly. M.S., State University of New York, College at Cortland, 1977.

The interview instrument designed for this study consisted of a 34-item three-part questionnaire. The first part solicited demographic information; the second sought drug knowledge, and used fixed alternative and Likert items; the third section used fixed alternative items and open-ended questions to measure drug practices. Questionnaire validity was assessed by a panel of experts; reliability was determined by test-retest procedures with a pilot group. The phi-coefficient and percentage computations were used, and the questionnaire was judged to be sufficiently reliable.

Gilbert, Glen G., and Richard Windsor. The Ohio State University First Aid and Personal Safety Achievement Test, 1975.

This is a 100-item multiple choice test. It was field tested with three different groups (total of approximately 650 university students) and revised between field tests. The final field test, using 349 students, yielded statistics showing the reliability to be .804 and .759 (KR 20 and KR 21). See The Journal of School Health, 47:48-50, January, 1977 for further information about this test and its availability.

Gorski, June D. Family Health Education Inventory Assessing Student Premarital Behavior. Dr. P.H., University of California, Los Angeles, 1971.

A valid and reliable instrument was constructed from questions submitted by college students, interviews with them, and from comments received from a jury of experts. Results from the inventory can provide objectives for instruction, learning opportunities and evaluation procedures, and suggestions for student health service needs.

Gray, Bryan James. A Descriptive Study of the Consultant Choices Made by College Students When Faced with Contemporary, Hypothetical Health Problems. Ed.D., University of Oregon, 1971.

A three-part questionnaire was developed to determine consultant choices. Included were a demographic data section, a scale to measure dogmatism, and a set of seven hypothetical health problems (drugs, VD, pregnancy, mental health and others). Validity of the health problems was verified by college student groups. Reliability ranged from .82 to .96 (test-retest) on all seven health problems.

Gunter, Ken. Formulating and Validating a College Health Knowledge Test. Ed.D., University of Alabama, 1972.

This test includes eight health content areas, determined after review of fourteen college health textbooks. Multiple choice questions were constructed for each area, and reviewed by judges for curricular validity. Statistical validity was determined for all items, and test revisions carried out. Items were divided into two test forms, and a split-half correlation coefficient was computed. Final test forms were made by taking all even numbered questions from both tests in Form A and all odd numbered ones in Form B. Test reliability was not determined.

Haag, Richard Alan. The Development of a Reinforcements Inventory and its Relation to Smoking Behavior. Ph.D., University of Hawaii, 1970.

A 23-item self-rating scale, the Satisfactions Inventory, was developed in this study. Its format was similar to the Semantic Differential. Single SI item scores, as well as several part scores based on simple unweighted sums, had significant utility in classifying smokers and non-smokers. Also, different SI items were useful in discriminating males from females.

Hardt, Dale V. Development of an Investigatory Instrument to Measure Attitudes Toward Death. Ph.D., Southern Illinois University, 1974.

(See "Elementary" Section.)

Iverson, Donald C. A Drug Knowledge Survey of College Students Selected from Colleges and Universities Throughout the United States for the Purpose of Establishing National Norms. Ph.D., University of Oregon, 1971.

This drug knowledge test consists of 58 multiple choice items based upon four areas: physical, social and legal aspects of drug use, and an area of "general" questions. Test validity was determined by a panel of 5 expert judges; reliability (Spearman-Brown) was .88. Norms were established. For further information see HPER Microform, No. HE 138.

Jarvis, William T. An Analysis of the Effect of a Programmed Instruction Course About Chiropractic on the Knowledge and Attitudes of Prospective Health Education Teachers at the University of Oregon. Ph.D., University of Oregon, 1973.

Prior to conducting this study, an instrument was developed to appraise the knowledge of chiropractic history, legal aspects, education, etc., to determine attitudes toward chiropractic (by a semantic differential using Likert-type techniques), the chiropractor's competency to treat a variety of diseases, and other

knowledge and attitudes toward chiropractic. Nine chiropractors and three medical doctors assisted in the development of the instrument, using the Delphi technique. The abstract of the study states that the instrument was tested for reliability and validity, but no specific information is provided.

Johnson, Patricia A. Construction of a Sex Attitudes and Knowledge Scale for College Students. M.S., Louisiana State University, 1973.

This test contains twenty-seven attitude items and forty-six knowledge items. Three hundred thirty four freshman university students participated in the study. The knowledge portion of the test meets the requirements for reliability, but the attitudes section does not.

Juhasz, Anne M. A Study of the Adequacy and Accuracy of Sex Knowledge of University Students. Independent study, Loyola University, Chicago, 1967.

This study was conducted at the University of British Columbia, to help establish the need for instruction in Canadian schools. Thirty multiple choice items and a questionnaire concerning the respondent's personal background, source, adequacy, and timing of information were developed. Refer to: Juhasz, Anne M. 'How Accurate Are Student Evaluations of the Extent of Their Knowledge of Human Sexuality?' Journal of School Health, 37:409-12, October, 1967.

Keeve, J. Philip, and Gerald J. Specter. Responses of 231 Public School Teachers to a Health and Safety Questionnaire. School of Public Health, University of Pittsburgh, 1967.

This eighty-one item first aid, safety, and health knowledge multiple choice questionnaire was used with teachers in the Newburgh City, N.Y. school district, in an attempt to determine the need for in-service education. The questionnaire, results, and references are available from the authors. Refer to: The Journal of School Health, 57:384-86, October, 1967 for a discussion of the procedures and findings.

Kilander, H. Frederick. Information Test on Human Reproduction. 3rd Ed., Staten Island, New York: Dr. Glenn Leach, Wagner College, 1968.

(See "Junior High" Section.)

Kilander, H. Frederick, and Glenn C. Leach. Information Test on Drugs and Drug Abuse. 4th ed., Ridgewood, N.J.: Dr. Glenn Leach, 116 N. Pleasant Avenue, 1974.

(See "Junior High" Section.)

Kilander, H. Frederick, and Glenn C. Leach. Nutrition Information Test. 5th ed. Ridgewood, N.J.: Dr. Glenn Leach, 116 N. Pleasant Avenue, 1968.

(See "Junior High" Section.)

Koser, Kathleen R. A Health Knowledge Test for Prospective Educators. Dr. P.H., University of California, Los Angeles, 1976.

A multiple choice test was devised to meet California Education and Administration Codes for health education of prospective educators. Competencies evaluated included those specified in various California state guidelines for health education and teacher preparation. A panel of experts was used to review and rate test items. Statistical validity was also determined. Reliability was indicated as .70 (KR), .58 (Spearman-Brown), and .73 (test-retest).

Leach, Glenn C. Kilander-Leach Health Knowledge Test. Ridgewood, N.J.: Dr. Glenn C. Leach, 116 N. Pleasant Ave., 1975.

(See "Senior High" Section.)

Lief, Harold, and David M. Reed. Sex Knowledge and Attitude Test. (S.K.A.T.). Philadelphia: Center for the Study of Sex Education in Medicine, Dept. of Psychiatry, University of Pennsylvania School of Medicine, 1972.

The S.K.A.T. is a test developed to assess knowledge and attitudes concerning sex, marriage and family living. The instrument has four parts, covering attitudes, factual knowledge, biographical background information and personal levels of experience. Test format includes true-false items and Likert-type attitude scale items. The test is suitable for college and professional school students and professionals.

Lussier, Richard R. A Multidimensional Instrument to Identify Health Education Needs for College Students. Dr. P.H., University of California, Los Angeles, 1970.

The multidimensional instrument developed in this study included three parts: a health behavior inventory, a health attitude inventory, and a health knowledge test. All parts of the instrument were subjected to statistical procedures to determine validity and reliability, and it was determined that statistical criteria were met satisfactorily. Reliability was .89 or higher (Spearman-Brown) on all three parts of the Inventory.

Maughan, Richard L. A Comparative Survey of Health Knowledge Between Sophomores at Utah State University and Sophomores at the University of Utah. M.S., Utah State University, 1970.

In order to determine health knowledge, a questionnaire consisting of 40 items was developed. Items covered 8 health areas.

McHugh, Gelolo. Sex Knowledge Inventory, Form Y. Revised. Family Life Publications, Inc., Box 427, Saluda, N.C., 1977.

(See "Senior High" Section.)

McHugh, Gelolo. A Venereal Disease Knowledge Inventory. Saluda, N.C.: Family Life Publications, Inc., 1966.

(See "Senior High" Section.)

Mejillano, Evelina A. An Instrument to Determine the Health Misinformation of Elementary School Teachers. H.S.D., Indiana University, 1971.

The Health Information Survey instrument was developed for use in this study. A jury of health specialists validated the health misinformation items. Two preliminary test forms were developed; reliability of Form A was .91 and of Form B was .92 (Spearman-Brown). Item analysis showed 153 items (from both tests) that were acceptable according to the established criteria for the selection of the final test items.

Miller, Michael G. Attitudes and Drug Usage Patterns Among College Men. Ph.D., Rutgers University, 1973.

A three-part 98-item inventory was constructed, containing attitude items thought to be pertinent to drug use and items related to drug usage.

Mood, Dale Paul. Test of Physical-Fitness Knowledge: Construction, Administration and Norms. Ph.D., University of Iowa, 1970.

Two parallel forms of a test to measure physical fitness knowledge were developed. Each form contains 60 test items. Curricular validity was established by a panel of experts. The reliability coefficients were .74 for form A and .77 for form B of the test. Norms were established for four categories of students: senior physical education majors, freshman physical education majors, physical education masters candidates, and non-physical education seniors. In evaluating the final test forms and establishing norms, the tests were administered to approximately 3200 students from 152 colleges and universities.

Mortonson, Mark. An Evaluation Instrument for the Assessment of Environmentally Related Behaviors of University Students. M.S., Western Illinois University, 1976.

In the development of this Inventory, the ratings of 17 judges were used to determine the importance of the items included. The

final instrument has 44 items and was determined to be both reliable and valid in determining environmentally related behaviors.

Olsen, Larry K. An Evaluation Instrument for Appraising the Health Related Attitudes of College Students. Dr. P.H., University of California, Los Angeles, 1970.

Using Guttman scalogram analysis, this researcher constructed a valid and reliable instrument capable of appraising changes in the health related attitudes of college students. Twenty-one subscales (content areas) were included in the 100 attitude statements that made up the final instrument. Reliability was determined using a test-retest method; validity was demonstrated through internal consistency, construct and content validity, and expert judgment.

Osman, Jack D. Nutrition Misconceptions of College Freshmen. M.S., University of Maryland, 1967.

This instrument consisted of 144 true-false-don't know statements which had been revised for their accuracy by a panel of twelve nutrition experts. The difficulty range of the statements is 6-94 percent. Reliability of the final test form was determined to be .94. For further information, refer to Osman's "Nutrition Misconceptions of College Freshmen," in School Health Review, 3:8-11, November-December, 1972, to the HPER Microform, No. HE 117, or to document NAPS 01935 of the National Auxiliary Publication Service of the American Society for Information Sciences.

Palmer, Carl G. Development and Application of an Instrument to Measure Health Misconceptions Among Jr. College Students. Ed.D., University of Georgia, 1973.

A 150-item health misconceptions instrument was developed, and two panels of health and medical experts were used in validating it. A pilot study was carried out, and the final instrument was administered to 374 students. Reliability was determined to be .82 by the test-retest method. See HPER Microform, No. HE 184f.

Parcel, Guy S. A Study of the Relationship Between Contraceptive Attitudes and Behavior in a Group of Unmarried University Students. Ph.D., The Pennsylvania State University, 1974.

A 25-item attitude scale, using the Likert method of summated ratings, was developed in this study. The Premarital Contraceptive Attitude Evaluation Instrument was administered to several groups of students and was determined to have a Coefficient Alpha Index of Reliability of .90 or higher for each group. It was also determined to have predictive validity. See "Development of an Instrument to Measure Attitudes Toward the Personal Use of Premarital Contraception," Journal of School Health, 45:57-60, March, 1975.

Paulson, Patricia C. Psychosocial Factors in Drug Use Among Community College Students. H.S.D., Indiana University, 1970.

A 150-item instrument was developed which surveyed demographic data, attitudes toward drugs and drug use, reasons for using drugs, facts about users, self-image, success-failure motivation and self-esteem. The instrument was judged to be capable of distinguishing drug users from non-users. The survey is untimed and group administered; about 50 minutes in length.

Pennock, Claire Judith. Identification of the Health Beliefs, Attitudes and Practices of a Selected Hippie Population. M.S.P.H., University of California, Los Angeles, 1971.

A health education questionnaire was developed which contained 71 questions representing the scope of health education. Among the areas explored were food practices, mental health, drug use, birth control practices and use of community health resources.

Phillips, Donovan. The Development and Standardization of a Personal Health Knowledge Test for College Students. Ph.D., University of Oregon, 1975.

The Phillips Health Knowledge Test, consisting of 80 multiple choice items, was developed. Items were based on ten health topic areas. Curricular validity was established by judges; reliability (KR 20) was .852. Norms for the final test form are reported in Percentile, T-Scores and Z-Scores.

Plonsky, Carolyn G. A Scale to Measure Elementary School Teachers' Attitudes Toward Contraceptive Education. Ed.D., Columbia University, 1975.

A 25 item five-point Likert-type attitude scale was developed. Content validity of this Contraceptive Education Attitude Scale (CEAS) was "built in by the development procedures." The reliability was .94, as determined by Cronbach's alpha.

Pollock, Marion B. The Construction of an Evaluation Instrument to Appraise Behavior in the Use of Stimulants and Depressants. Ed.D., University of California, Los Angeles, 1966.

(See "Senior High" Section.)

Raduns, Linda H. The Development of an Instrument to Measure Value Clarification in the Area of Ecology. M.A., University of Florida, 1973.

Curricular validity for this instrument was established by a panel of experts. Raths' seven criteria for determining a value were used in the instrument's development. For further information see HPER Microform, No. HE 196f.

Rue, Brent M. Air and Water Pollution Instructional Effects on Student Knowledge, Attitudes and Behavior. M.S.P.H., University of California, Los Angeles, 1973.

This study resulted in the development of a valid and reliable multidimensional instrument to determine the knowledge, attitudes and behavior of college students concerning air and water pollution. The instrument contains 27 multiple choice knowledge items with five distractors each, 32 attitude items to be responded to using a 5-point agree-disagree scale, and 27 behavior items using a 5-point scale ranging from "never" to "always." Content validity was ensured by using scientific books and articles as the source for items and by having an expert jury evaluate all items. Test reliability was as follows: .71 (knowledge), .72 (attitudes), .71 (behavior); the Spearman-Brown Formula was used.

Schlegel, Ronald P. Multidimensional Measurement and Structure of Attitudes Toward Smoking Marijuana with Prediction of Marijuana Use. Ph.D., The Ohio State University, 1973.

Three scales for measuring attitudes toward marijuana use were derived through factor analysis. The scales were validated using (a) intentions to smoke marijuana and (b) actual past use of marijuana.

Schmidt, Carole H. The Development of an Instrument to Distinguish Between the Attitudes and Beliefs of Non-Smoking and Smoking College Male Freshmen. M.S., University of Illinois, 1968.

This instrument is a revision of the University of Illinois Smoking Test (O'Rourke) and it was revised in order to be suitable for college students. The 44 item Likert-type attitude-belief scale includes 31 belief items and 11 attitude items. Thirty-one of the items were determined to be related to five factors: health and disease, exemplar, peer, pleasure and parental. For further information see HPER Microform, No. HE 118.

Schmidt, Norma Gayle. Development of an Instrument to Evaluate the Knowledge of Elementary Teachers About Venereal Disease. Ph.D., Texas A & M University, 1974.

The Schmidt VD Knowledge Evaluator consists of 45 multiple choice

items. Validity was established by a panel of health professionals. Reliability was .79 (KR).

Shahrokh, Reza. The Development of an Instrument for Measuring the Understanding Which College Students Have of Certain Selected Health Concepts. Ph.D., Southern Illinois University, 1971.

Two of the concepts from the School Health Education Study, those relating to mood modifiers and nutrition, were selected for this study. The preliminary test was administered to a student group, submitted to jurors, revised to include 40 items per concept, and then administered to another student group. Reliability was .86 for mood modifiers and .88 for the nutrition concept, using the Spearman-Brown formula.

Shaw, Donald D. A Comparison of the Effectiveness of Teaching General Hygiene by Closed-Circuit Television and by Lecture Procedures. Ed.D., Oregon State University, 1966.

A 100-item multiple choice test including eleven health topic areas was developed primarily for college freshmen. Test reliability is .89; test validity is .80, as determined by the correlation between test scores and final grades on the health course in which students were enrolled.

Snegroff, Stanley. The Relationship Between Abortion Attitudes and Abortion Knowledge Among College Students. Ed.D., Columbia University, 1974.

An attitude scale and a knowledge inventory were developed as a part of this research. The Abortion-Attitude Scale is a five point summated rating scale, consisting of 30 statements designed to determine the subject's positive or negative attitude toward abortion as a method of birth control. The Abortion-Knowledge Inventory consists of 30 four-option multiple choice questions. Reliability coefficients were computed for the attitude scale and the knowledge inventory by the split-halves method. For the Attitude Scale the reliability was .91; for the Knowledge Inventory it was .79. For further information about these scales, see the Journal of School Health, 46: 273-77, May, 1976.

Snyder, Phyllis M. An Instrument to Appraise Student Knowledge, Attitudes and Practices Relating to Environmental Health. Dr. P.H., University of California, Los Angeles, 1972.

A valid and reliable instrument was constructed to appraise the knowledge, attitudes and practices of high school and college students relating to certain environmental health issues. Test items were submitted to a panel of experts for appraisal and were given a trial administration prior to the development of the final instrument. Reliability (Spearman-Brown) was determined to be .936 for practices, .958 for attitudes and .784 for knowledge.

Sorochan, Walter D. Attitudes of Secondary School Health Educators of Kentucky Toward Smoking and Health. H.S.D., Indiana University, 1969.

In carrying out this study, a booklet, consisting of an 18-item demographic questionnaire and a semantic differential attitudinal scale, consisting of 12 concepts, with each concept having 10 scales, was mailed to the teachers. A pilot study had previously been conducted to determine whether the concepts would discriminate between subjects on the basis of smoking and health. Three hypotheses were tested for significance of difference between the attitudes of smokers, ex-smokers and non-smokers toward smoking in general, smoking behavior and smoking and education.

Troyer, Beverly J. The Influence of Personal Factors on Attitudes of College Students Toward Sexuality and Sexual Decision-Making Situations in a Selected Minnesota College. Ph.D., University of Minnesota, 1971.

An attitude scale and a set of decision-making situations, based on three broad positions of morality (the absolutistic, the relativistic and the hedonistic) were developed to assess attitudes toward sex, and a biographical data sheet was developed to classify the population. Content validity was established by literature review and expert panel. Reliabilities (KR) were acceptable for the attitude scale but low for the decision-making instrument.

Tuckett, Glen Cameron. Evaluation Instruments for Modular Units in Health Science 130 at Brigham Young University. Ed.D., Brigham Young University, 1975.

A total of 424 multiple choice questions were developed and assigned to eight different content areas. Jury rating and item analysis established validity and the average reliability coefficient for the eight modular tests was .8599. Refer to HPER Microform, No. HE 227f.

U.S. Dept. of Health, Education and Welfare, Food and Drug Administration. A Study of Health Practices and Opinions, 1972.

This was a large national survey to investigate the nature and prevalence of fallacious or questionable health beliefs and practices, and susceptibility to them. Areas investigated include vitamin pills and food supplements, weight reduction practices, self-medication, arthritis treatment practices, and many others. An extensive survey questionnaire was developed. The report is available on microfiche from National Technical Information Service, #PB 210-978.

Warner, H. Lynn. Relationships Between Drug Knowledge and Attitudes Toward Drug Abuse Among University Students. Ph.D., Purdue University, 1972.

Three different evaluation instruments were constructed: a 50-item knowledge test, based on ten content areas, a 26-item Likert-type attitude scale, and a 6-item drug behavior inventory related to use or abuse of six types of drugs. Curricular validity was based primarily on an analysis of current drug curricula. The knowledge test had a reliability of .83 (KR 20).

Yelverton, Howard L. Constructing a College Health Knowledge Test. Ed.D., University of Alabama, 1969.

The multiple choice questions developed for this test were based on eight health areas. College health texts, professional journals and pamphlets and magazine articles were used to provide curricular validity. Five health educators served as jurors. Following statistical analysis of the original 300 test items, the final form of the test contained 145 items that were judged valid. This form was constructed so that the odd numbered and even numbered items were equal in difficulty rating and nearly equal in discriminatory power, so a shorter form of the test might be used or the two halves could be used as a pre- and post-test instrument.

Yuker, Harold E., J.R. Block, and Janet H. Young. The Measurement of Attitudes Toward Disabled Persons. U.S. Office of Education, Dept. of Health, Education and Welfare, and Human Resources Center, Albertson, N.Y., 1970.

This document reviews a number of years of research that have been going on in relation to the development of scales for determining attitudes toward the disabled. Several scales are presented, all Likert-type, all suitable for use with disabled or non-disabled persons. The latest scale has two forms with 30 items in each, and was developed in 1964. See ERIC Microfiche #044 853.

Zelfer, Geraldine H. Construction of a Situation-Response Scale to Measure the Attitudes of Freshmen and Sophomore College Women Toward Birth Defects. M.Ed., University of North Carolina at Greensboro, 1972.

Thirty situation-response items, each with five action responses, were constructed. Persons are asked to respond in terms of what they would do if confronted by each situation. Validity (.920) was determined by judges' ratings; reliability (Pearson) was .807.

SCHOOL HEALTH PROGRAM
EVALUATION INSTRUMENTS

Adcock, Anthony G. An Instrument for the Evaluation of the Healthful School Environment in Elementary Schools. H.S.D., Indiana University, 1971.

A list of standards was compiled by reviewing the concepts of authorities. Standards were grouped into 10 areas and 32 sub-areas, submitted to 11 school health authorities for revisions and suggestions, and then weighted in terms of their relative value. The instrument was then developed into a score card, and used by three judges in rating 12 elementary schools. Reliability coefficients above .80 were calculated for the total scores and for five of the 10 areas. It is suggested that the instrument is suitable for use in a school situation but should be used only by trained persons for purposes of comparing strengths and weaknesses between schools.

Carpenter, Gene A. A Score Card for Evaluation of Health Instruction Programs in High Schools. Ph.D., University of Utah, 1971.

The major categories included on this score card are instructional staff, program organization, health instruction and content, professional assistance, and summary sheets. Curricular validity was established by analysis of pertinent literature in the field and the judgments of experts. Reliability was determined to be .999 by the test-retest method. The writer concludes that the card should reveal weaknesses, strengths and limitations of a health instruction program and indicate possible areas for improvement.

Collins, Jule Ann. An Instrument to Evaluate Health Instruction Programs in Secondary Schools. Ph.D., Purdue University, 1973.

Six program areas were established, and standards as a basis for writing the 100 items were obtained from professional literature. A jury of experts determined content validity and also weighted content areas. Items were of the Likert type. Internal consistency reliability estimates (Pearson) were obtained for each item with its area subscore, and with the total score on the Rating Scale for Health Instruction Programs. In addition, Kendall Rank Correlation Coefficients were obtained for the three combinations of raters in each school for each area and for the total instrument. These procedures indicated that the Rating Scale was an objective and reliable instrument for self-evaluation and evaluation by an outside rater.

Finnegan, Harry O. The Development and Field Testing of a Manual for Evaluating a Senior High School's Health Instruction Program. Ed.D., Washington State University, 1966.

In order to determine appropriate criteria upon which an evaluation might be based, a literature review was conducted. Health principles established by experts in the field of health instruction were selected as the criteria to be used in the manual. Part I of the manual dealt with the administrative provisions for the health instruction programs. An interview guide for teachers and an interview guide for administrators were developed, as well as an evaluative checklist for summarizing the data gathered and to make recommendations from each interview guide. A rating scale (excellent, adequate, inadequate) was incorporated into the interview guides and checklist. In Part II of the manual the Health Practice Inventory of the Salt Lake City Schools and the Kilander Health Knowledge Test were used to appraise student behavior and knowledge.

Haro, Michael S. A Systems Based Diagnostic/Prescriptive Consultation Instrument for Secondary School Health Education Programs. Ph.D., Kent State University, 1976.

An instrument was developed to aid in analyzing, designing and managing effective health education programs in school settings. Through the use of specific criteria, the level of functioning of a program can be determined. In addition, systematic steps were formulated, to aid in meeting the criteria, so a school system would have a means of improving its level of functioning. A "Criterion Task Analysis Model" and instructions for consultants were also developed.

Kirk, Robert H. An Instrument for Evaluating College and University Health Service Programs. H.S.D., Indiana University, 1960.

A preliminary instrument consisting of 291 health service standards in eight areas was reviewed by 40 health service personnel who were members of the American College Health Association. The revised instrument of 247 standards was weighted by a similar jury and point values were assigned to the content. Health service programs were appraised by their Directors, the investigator and other outside raters. The Pearson Product-Moment Formula was used to treat the data and the instrument was judged to be reliable both as a self-appraisal device and as a survey appraisal device.

Trausneck, William McLean. Development on an Instrument for the Self-evaluation of School Health Service Programs. Ed.D., University of Virginia, 1963.

Twelve criteria for evaluating school health service programs were derived from the areas of agreement between educational and medical authorities as expressed in the literature. Criteria were validated by the members of the Joint Committee of the N.E.A. and the A.M.A. Characteristics which would implement the criteria in practice were developed and a panel of Virginia physicians and educators was chosen to rank the characteristics of each criterion in order of their importance. The final instrument consisted of 12 criteria and 52 characteristics which might be used as a guide in the self-evaluation of a program of school health services.

Watters, Ray. An Evaluation Instrument for the School Health Service Program. H.S.D., Indiana University, 1960.

Health service criteria were selected from current sources considered to be authoritative for school health service programs. Criteria were organized under seven major divisions and submitted to a national jury of health representatives for rating. Reliability was established by an initial and final survey conducted by a team in three schools. If any criterion had a 20 percent disagreement it was revised or eliminated from the score card. The final score card consisted of 210 criteria.

ADDITIONAL SOURCES OF EVALUATION INSTRUMENTS

In the course of searching for evaluation instruments, it became apparent that in recent years many persons who are not health educators have been developing instruments that might be included in this Bibliography. Most of these references are not included in this publication. Readers may want to consult the literature in psychology, sociology and home economics as they search for suitable evaluation tools. In addition, there are a number of compilations of health or health-related evaluation instruments that might prove useful. These include:

Comrey, Andrew L. et al. A Sourcebook for Mental Health Measures. Los Angeles: Human Interaction Research Institute, 1973.

This sourcebook contains approximately 1000 abstracts, each providing identifying information and 200-300 word descriptions of the instruments. Instructions for obtaining copies of instruments are also included. See ERIC Microfiche No. ED 096 350.

Educational Testing Service. Measures of Health and Physical Education. Princeton, N.J.: ETS, 1976.

The majority of the health education tests in this annotated bibliography have been included in the previous edition of Evaluation Instruments. Publishers' and authors' addresses are provided.

Educational Testing Service. Measures Pertaining to Drug Knowledge and Drug Abuse. Princeton, N.J.: ETS, 1977.

Many of the tests included in this annotated bibliography have been developed by persons working in drug, guidance, mental health and other programs, and would not be easily discovered by a literature search. Addresses of authors and publishers are provided.

Educational Testing Service. Tests in Microfiche. Princeton, N.J.: Educational Testing Service. (n.d.)

This is a collection of unpublished tests which have been mentioned or described in the professional literature. Some health education instruments will be found. ETS will, on request, send a list of the tests in the collection. The tests may be purchased individually.

Ferneau, Ernest W. Drug Abuse Research Instrument Inventory. 4th ed. Cambridge, Mass.: Social Systems Analysts, 1973.

This Inventory is a listing of instruments used in drug abuse research which have been located through the literature and from

submissions from the field. References and descriptions are included. Most instruments are described as behavioral or psychological and paper-and-pencil variety. See ERIC Microfiche No. ED 088 926.

Guthrie, P.D. Measures Pertaining to Health Education: I. Smoking, II. Drugs, III. Alcohol. Princeton, N.J.: Eric Clearinghouse on Tests, Measurement and Evaluation, Educational Testing Service, 1972.

These are three annotated bibliographies of instruments designed to assess attitudes, behavior, and knowledge in relation to smoking, drugs and alcohol. Some of the instruments were developed as thesis or dissertation research, but the majority were not. Instruments are described in terms of purpose, population for which they are suitable, content and technical data.

National Institute on Drug Abuse, USPHS. Drug Abuse Instruments Handbook. Research Issues 12. Rockville, Md.: National Institute on Drug Abuse, 1975.

This is intended to serve as a reference tool to identify existing instruments and suggest items for developing new instruments. Over 2000 items from 40 instruments are included, categorized according to the areas they assess. Purchase from the Supt. of Documents, GPO, for \$4.65. Stock number 017-024-00533-9.

Reeder, Leo G., Linda Ramacher, and Sally Gorelnik. Handbook of Scales of Health Behavior. Pacific Palisades, Ca.: Goodyear Publishing Co., 1976.

The purpose of this volume is to help the researcher locate a technique for measuring the aspect of health behavior involved in his/her study. Measures included are concerned with health behavior, health status, illness behavior, health orientation, and utilization of health services. Copies of many of the instruments are included.

CURRENT AVAILABILITY
OF SOME PUBLISHED TESTS

Some of the published tests listed in the 1969 edition of Evaluation Instruments are no longer available through their original sources and others are known to be out-of-print. Information which could be obtained about these older tests is provided here.

Adams, Georgia S., and John A Sexton. California Tests in Social and Related Sciences. This is now out-of-print.

American Medical Association. Test Your A.Q. This is now out-of-print.

Colebank, Albert D. Health Behavior Inventory: Junior High. This test is no longer published by the California Test Bureau. For information, contact the author at 560 W. El Morado Court, Ontario, California 91762.

Crawford, Marilyn. Madison Health Knowledge Test. This is now out-of-print.

Dzenowegis, Joseph G. Self-Quiz of Safety Knowledge. This is now out-of-print.

Lawrence, Trudys. Getting Along: Grades 7,8,9. Contact the author at 5532 Poplar Blvd., Los Angeles, California 90032, or the Educational Testing Service, Princeton, N.J. 08540 for ordering information.

LeMaistre, E. Harold, and Marion B. Pollock. Health Behavior Inventory: Senior High. This is now-out-of-print.

New York State Council on Health and Safety Education. Health Knowledge Examination for the Secondary Level. This is now out-of-print.

Reid, Carmen Patricia. Health Behavior Inventory: College Level. This is now out-of-print.

Schwartz, William F. Achievement Test on Syphilis and Gonorrhoea. This is now out-of-print.

Schwartz, William F. Teaching Test on Syphilis and Gonorrhoea. This is now out-of-print.

Yellen, Sylvia. Health Behavior Inventory: Elementary. This test is no longer published by the California Test Bureau. For information, contact the author at 2744 Angels Drive, Los Angeles, California 90024.

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Descriptive information on evaluation instruments for measuring effective health education programs is included in this bibliography. The evaluation instruments are listed in five categories, four of which correspond to the school level for which the instrument has been designed: elementary, junior high, senior high, and college and nonstudent groups. The fifth category consists of instruments for school health program evaluation. (JD)

49/C

SUBJECT INDEX

Evaluation instruments are listed by subject area, with the author's name, the page reference and the school level for which the instrument is designed. The code for the latter is as follows: elementary school (E), junior high school (J), senior high school (S), college (C), nonstudent groups (A).

Alcohol/Tobacco/Drugs:

Allen C 28	Haag C 34	Paulson C 39
Attwood S 15	Horan JS 14	Plummer JS 17
Benson S 20	Iverson C 34	Pollock SC 24
Brown E 7	Kilander JSC 15	Schmidt C 40
Chipman C 30	Ladner J 15	Simpson S 25
Churchman C 30	Levy J 15	Soroohan C 42
Eels C 31	Love J 16	Swanson J 17
Faeth C 32	McGinty J 16	USPHS JS 17
Fink C 32	Miller C 37	Vincent JS 18
Gay E 9	O'Rourke S 23	Warner C 43
Gebhardt A 33		

Community Health:

Kussman E 10
Yeakle S 27

"Comprehensive" Health Education:

AAHPER E 7	Doran C 31	Olsen C 38
AAHPER J 12	Evans S 20	Osness EJ 10
Baum C 28	Fast SC 21	Palmer C 38
Beckett S 19	Gunter C 34	Pennock A 39
Beitz JS 12	Hong J 14	Phillips C 39
Bell S 19	Keeve C 35	Sandidge S 24
Benbassat E 7	Koser C 36	Seffrin S 24
Bjerke S 20	Kosloff S 22	Shahrokh C 41
Blackburn C 28	Leach SC 22	Shaw C 41
Burhans C 29	Lussier C 36	Stephens S 26
Buscho S 20	Maughan C 36	Tuckett C 42
Bush C 30	Mejillano C 37	U.S. HEW A 42
Davila E 8	NAEP S 23	Yelverton C 43
Donaldson J 12	Nowack J 16	

Consumer Health and Services:

Cissell C 31	Jackson JS 14
Gaines C 32	Jarvis C 34
Gray C 33	Stauffer S 26

Death:

Hardt EJSC 9

Dental Health:

Behr C 28
Cook E 8
Rubin 11

Disease:

Becklund E 7
Brown A 29
Campbell A 30

Cook E-8
Hotzclaw C 21
McHugh SC 23

Schmidt C 40
Vencel JS 18

Environment:

Brennan C 29
Horvat E 9
Manalad-Sitompul E 10

Mortonson C 37
Raduns C 42

Rue C 42
Snyder SC 25

First Aid and Safety:

Casperson C 30
Fulton J 13

Gilbert C 33
National Safety Council E 10

Fitness:

Mood C 37

Growth and Developme

Lussier S 22
Spears E 11

Handicapped:

Yuker CA 43
Zelfer C 43

Health Careers:

Boone C 29
Calsbeek J 12

Nutrition:

Johnson JS 14
Kilander JSC 15

Nethers J 16
Osman C 38

Robinson E 10

School Health Program: See pp. 44-45

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