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#### **ABSTRACT**

This annotated bibliography describes instruments pertaining to smoking attitudes, behaviors, knowledge, and correlates. Information concerns test purpose, intended groups, test subdivisions, administration, scoring, interpretation, and standardization. (MS)

## TMREPORTS

NUMBER 8



# Measures Pertaining to Health Education:

### I. Smoking

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#### MEASURES PERTAINING TO HEALTH EDUCATION

#### I. SMOKING

An Annotated Bibliography

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#### INTRODUCTION

This series of three annotated bibliographies deals with measures pertaining to tobacco smoking, drugs, and alcohol. Instruments designed to assess attitudes, behaviors, practices, knowledge, and correlates will be described. This first paper reports not only on instruments concerned solely with smoking, but also on more general drug usage measures which contain a number of items on smoking. General health tests, many of which have a limited number of items on tobacco, have not been included.

The instruments described were found through a search of Research in Education, Current Index to Journals in Education, and Dissertation Abstracts International, of the documents held by the Test Collection of Educational Testing Service and the libraries of Rutgers-The State University of New Jersey, and by personal correspondence with authors.

The classification table following this introduction lists the tests alphabetically by test title, indicates the age/grade ranges for which each is considered suitable, reports the types of assessments included, and gives the page on which each annotation appears.

The main descriptive section then conforms to normal bibliographic practice in listing the tests alphabetically by first author, followed by the test title, the source from which the instrument may be obtained, and the copyright date (indicated by a small c) or publication date (indicated by a small p). The absence of a copyright date is not intended to suggest that the instrument is uncopyrighted.

The annotation provides information concerning the purpose of the tests; the groups for which it is intended; test subdivisions or tested skills, behaviors, or competencies; administration; scoring; interpretation; and standardization. Number references in parentheses in the text are keyed to the reference list which follows the bibliography.

Certain terminology and ground rules used in preparing the bibliography are explained below.

#### A. Test Title

Sometimes an instrument does not appear to have an "official" identifying label. In such cases, an appropriate name has been provided.

#### B. Age/Grade Range

The range should be considered as a guide only. Listed here is the age/grade range for which the measure is intended (as stated by the author), or the range from which data was obtained. The age/grade ranges listed may well be arbitrary and should not necessarily be viewed as ultimate limits.

#### C. Forms

If forms are not mentioned in an annotation, only one form of the test is available.



#### D. Timing

An instrument may be described as "timed," "untimed," or "paced." The latter means that the examiner reads the instructions and items to the examinee. When available, the approximate time required for administration is indicated.

#### E. Scoring

Unless otherwise indicated, scores are derived directly from the responses of the subject, usually by a summative process. The great majority of the tests are hand scored; any variations are noted.

#### F. Technical Data

In this area, only the kinds of norms available and the types of studies performed are reported. The content, results, and quality of the studies made are not indicated. If a reader finds a test of interest, he should examine the technical report in detail to determine whether that particular test is appropriate for his purpose.

Reliability studies show whether an instrument gives consistent results. Intra-scorer or intra-examiner reliability is the correlation between the results obtained when a single examiner scores the same set of tests more than once. Inter-scorer or inter-examiner reliability is the correlation between the results obtained when different examiners score the same set of tests. Odd-even, split-half, Kuder-Richardson 20, Kuder-Richardson 21, and Spearman-Brown correlations are all measures of internal consistency. A test-retest study indicates that the same form of the same test has been administered to the same group of examinees at two different times and the results correlated. When parallel forms of the same test have been given to a group of examinees and the results correlated, the correlation is called parallel form or inter-form reliability.

Validity studies indicate whether an instrument measures the skills, abilities, competencies, or traits which it purports to measure. One type of validity is concerned with the appropriateness of the test items for such measurement, according to some definition; for example, a statement of instructional objectives, the psychological definition of a concept, etc. Such validity is called content or construct validity. Another type of validity is determined by the correlation between the scores on an instrument and some other external measure of the same quality or attribute. For example, in a concurrent validity study the results of two measures taken on the same group of examinees at approximately the same time are correlated; in a predictive validity study the scores from a given test are correlated with those of a different measure taken at a later date.

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#### CLASSIFICATION TABLE

#### Symbols used are as follows:

1	=	Elementary School Students
2	• =	Junior High School Students
3	=	High School Students
4	=	College Students
5	=	Adults
Α	=	Attitudes, Opinions
В	=	Behaviors, Practices, Use History
K	=	Knowledge
P	=	Personal Data Correlates Demographics

Instrument	Range	Assesses	Page
Attitudes and Beliefs About Smoking Scale	2-3	A	13
Baer Smoking Attitude Scale	4	A	5
Blum College Drug Use Interview Schedule	4	АВР	5
Blum High School Drug Use Questionnaire	3	АВКР	6
Briney Smoking Questionnaire	3	вк	7
Buscho Four Controversial Health Areas Test	3–5	ΑK	8
Chicago Smoking Behavior Intensive Questionnaire	5	АВКР	14
Dope Use Questionnaire	2-5	В	11
Drug-Use Questionnaire	4	АВ	9
Edinburgh Young Smokers Questionnaire	1-4	АВР	8
Heubach Smoking Habits and Attitudes Questionnaire	3	АВР	9
Horn-Waingrow Scale	4-5	A	9
Information Test on Smoking and Health	3-5	ABK	10
Information Test on Stimulants and Depressants	3–5	ĸ	10
McKennell-Bynner Smoking Attitude Scales	1-3	Α	11
Mood-Altering Substances: A Behavior Inventory	3–4	вк	12
Multi-Level Research Questionnaire, Form 2 with			
Smoking Supplement	4	АВР	6
Multi-Level Research Questionnaire, Freshman Followup:			
February 1966	4	АВР	7
Multi-Level Research Questionnaire, Terminal Followup:			
March 1967	4	АВР	7
National Smoking Test	2-5	AK	8
Oklahoma Stimulants and Depressants Test	3	K	12
Smoker's Self-Testing Kit	3-5	AKP	10
Smoking Habits Questionnaire	2-3	В	13
Smoking History Questionnaire	4-5	ВР	11
Tandy's Semantic Scale for Attitudes Toward Smoking	2-5	A	14
Thompson Smoking and Tobacco Knowledge Test	2-4	ABK	14
Ward Smoking Habits Questionnaire	2-3	ВР	15
Ward Smoking Practices and Attitudes Questionnaire	2-3	ABP	15
Weir Student Perceptions of Smokers Measure	2-4	A	15
Winnipeg Cigarette Smoking Habits Questionnaire	1-3	<b>B</b>	12



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Instruments or documents stated as being available from EDRS can be ordered from:

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The prices quoted below, which apply at this time, are subject to change. It is always advisable, therefore, to check the most recent issue of Research in Education for current pricing information.

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#### MEASURES PERTAINING TO HEALTH EDUCATION: SMOKING

Baer, D. J. Baer Smoking Attitude Scale.

From: Daniel J. Baer, Department of Psychology, Boston College, Chestnut Hill, Massachusetts 02167 (p1966).

Assesses attitudes toward smoking in college males. Two parallel forms are available, each with 22 agree/disagree statements. The measure is untimed and self administering and is scored by the use of weights developed by Thurstone procedures. Mean attitude scores for smokers, former smokers, and non-smokers on a sample of 405 Boston College students are reported (1). Interform reliabilities and considerable evidence of validity are presented.

Blum, R. H., & Others. Blum College Drug Use Interview Schedule.

From: Richard H. Blum, Institute for Public Policy Analysis, Stanford University, Stanford, California 94305 (p1966).

Assesses drug use practices in college students. The 215 items (multiple choice or open-ended) are concerned with demographic variables, social and psychological correlates of drug use, attitudes, functions of drug use, parental attitudes and drug use habits, and drug use profiles in the areas



of tobacco, alcohol, amphetamines, sedatives, tranquilizers, marijuana, hallucinogens, narcotics, special substances used for kicks (glue, gasoline, etc.), and other common drugs (aspirin, coffee, cola, etc.). The instrument provides scores for drug use intensity, family-homogeneity, student-to-parent-opposition, and outsider-insider involvement with groups. The measure is untimed and individually administered as a structured interview, taking approximately one hour. Some experience in interviewing is needed. Selected item response data and detailed findings for student samples from five colleges are reported (2). Test-retest (different interviewers) reliabilities are validity checks are presented. No other technical data was available for review.

Blum, R. H., & Others. Blum High School Drug Use Questionnaire.

From: Richard H. Blum, Institute for Public Policy Analysis, Stanford University, Stanford, California 94305 (p1966).

Assesses drug use practices, attitudes toward drugs, and knowledge of drugs in high school students. The 55 items (multiple choice or open-ended) are divided into major sections on tobacco, alcohol, marijuana, LSD, other drugs, and background information. Questions on parental drug use and encounters with drug users are included. The *Questionnaire* is untimed, group administered, and may be given by a classroom teacher. Selected item response data and findings for a sample of 5,480 San Francisco Pay Area students are reported (2). No other technical data was available for review.

Borgatta, E. F. Multi-Level Research Questionnaire, Form 2 with Smoking Supplement.

From: Edgar F. Borgatta, Department of Sociology, University of Wisconsin, Madison, Wisconsin 53706 (p1965).

Assesses smoking behavior and correlates of smoking in college students. The instrument has 310 items (multiple choice or completion) concerning smoking practices, smoking behaviors of friends and relatives, attitudes toward smoking, value orientation, work orientation, personality (the S-ident Form test), attitudes and opinions, campus orientation, and background information. A large number of subscores are provided. Among those found to be related to smoking behavior are the following: Conventional Religiosity, Adherence to Authority, Potential for Personal Challenge, Tolerance for Work Pressure, Freedom from Social Restraint, Popular with Opposite Sex, Participation in Athletics, and Impulsivity. The measure is untimed and self administering. Findings are presented for the 1965 freshman class at the University of Wisconsin (4, 8). Correlations of S-ident Form scores with peer rankings are reported (3). No other technical data was available for review.

Borgatta, E. F. Multi-Level Research Questionnaire, Freshman Followup: February 1966.

From: Edgar F. Borgatta, Department of Sociology, University of Wisconsin, Madison, Wisconsin 53706 (p1966).

Assesses smoking behavior and correlates of smoking in college students. Seventy-eight items (multiple choice, rating scale, or completion) explore smoking practices, attitudes toward smoking, health, drug use, values, general attitudes and opinions, college social life, other activities at college, and campus problems. The instrument has a large number of subscores. Among those found to be related to smoking behavior are the following: Conventional Religiosity, Adherence to Authority, Freedom from Social Restraint, Popular with Opposite Sex, and Participation in Athletics. The Questionnaire is untimed and self administering. Findings are presented for the 1965 freshman class at the University of Wisconsin (4, 8). No other technical data was available for review.

Borgatta, E. F. Multi-Level Research Questionnaire, Terminal Followup: March 1967.

From: Edgar F. Borgatta, Department of Sociology, University of Wisconsin, Madison, Wisconsin 53706 (p1967).

Assesses smoking practices and attitudes toward smoking in college students. The Questionnaire has 22 items (multiple choice, completion, or rating scale), some with several parts. The questions deal with smoking behavior; attitudes toward smoking; health; drug use; views on number of students using cigarettes, alcohol, and other drugs; general attitudes; and personal data. The instrument is untimed and self administering. No technical data was available for review.

Briney, K. L. Briney Smoking Questionnaire.

From: Kenneth L. Briney, Executive Director, Health Manpower Council of California, 121 East 11th Street, Oakland, California 94606 (c1964).

Assesses smoking practices and knowledge of effects of smoking in high school students. There are 3 multiple choice items on student and parental smoking behaviors, and 66 multiple choice items on lung cancer, physiological effects of smoking, longevity, chemical composition of cigarette smoke, heart disease and disease entities other than cancer, and miscellaneous information. The instrument is untimed, group administered, and may be given by a classroom teacher. Item response data, item analyses, item difficulties, test difficulties, total score frequencies, and detailed findings for a sample of 348 high school seniors are reported (5). Content validity was adjudged by a panel of experts. Split-half reliabilities are reported.



Buscho, A. E. Buscho Four Controversial Health Areas Test.

From: Ardon E. Buscho, 704 South Front Avenue, Park Rapids, Minnesota 56470 (p1966).

Measures knowledge of and attitudes toward tobacco smoking, alcohol, sex education, and public health in high school and college students and adults. The test consists of three parts: 32 multiple choice knowledge items, 8 in each health area; 40 five-point attitude rating scales, 10 in each health area; and 20 items requesting a judgment as to whether a specific health topic should be included in the high school health education curriculum. The public health items pertain to immunizations; public, professional, and voluntary health agencies and their programs; flouridation of water; abortions, venereal diseases; and consumer education about drugs. The test has subscores in each health knowledge area. It is self administering and untimed. Mean subscore and item response data on the attitude and curriculum questions for samples of high school seniors, parents, and teachers in the North Central Community School District (Iowa) are reported (6). Evidence of content validity is presented. No other technical data is available.

Cartwright, A., & Others. Edinburgh Young Smokers Questionnaire.

A copy of the instrument may be examined in: Cartwright, A., & Others. Young smokers; An attitude study among school children, touching also on parental influence. British Journal of Preventive and Social Medicine, 1960, 14, 28-34.

Assesses smoking practices and attitudes in students aged 11 to 18. The 15 items (multiple choice or free response) are concerned with demographics, smoking habits, attitudes toward smoking, places where cigarettes are obtained, and parental smoking practices and attitudes. The *Questionnaire* is untimed, group administered, and may be given by the classroom teacher. Item response data and detailed findings for a sample of 3,224 Edinburgh, Scotland, students are reported. No other technical data is available.

Columbia Broadcasting System, Inc., National Smoking Test.

A copy of the instrument and the television script may be examined in:
Yarborough, R. W., Senator. The national smoking test: Public served
by CBS. Congressional Record, January 26, 1968, 114, 1132-1137.

Assesses knowledge, opinions, and attitudes toward smoking in adolescents and adults. The instrument has 36 items (agree/disagree, true/false, or multiple choice) concerning views on the dangers of smoking; knowledge about smoking, smokers, and the tobacco industry; and reasons for smoking. This last section (reasons for smoking) is an adaptation of Test 3 of the Smoker's Self-Testing Kit described later, and has 3-point rather than 5-point rating scales. Explanations of the answers to the items are provided. The test is paced and group administered. The television program ran for one hour. Selected item response data and findings for a national sample are reported. No other technical data is available.



Haagen, C. H. Drug-Use Questionnaire.

From: C. Hess Haagen, Office of Psychological Services, Wesleym University, Middletown, Connecticut 06457 (p1970).

Assesses drug use practices in college students. The 79 multiple choice items deal with marijuana or hashish, psychedelic agents, amphetamines, narcotics, tobacco (cigars and pipe), tobacco (cigarettes), alcohol (beer, ale, wine), and alcohol (hard liquor). The questions ask about drug use practices, attitudes or opinions, reasons for use/non-use, and effects of drugs. The instrument is untimed and self administering. No technical data was available for review. A study has been conducted using a 30% random sample of the Wesleyan undergraduates.

Heubach, P. G. Heubach Smoking Habits and Attitudes Questionnaire.

A copy of the instrument may be examined in: Heubach, P. G. A survey of the smoking habits and attitudes of high school seniors. 1964, 152 p. (ED 053 218; MF and HC available from EDRS).

Assesses smoking practices and attitudes toward smoking in high school students. The *Questionnaire* has 74 items (yes/no, multiple choice, or completion); some are omitted by certain smoking or non-smoking categories of students. The questions pertain to personal data, family smoking practices and attitudes, personal smoking habits, reasons for smoking or not, and opinions on smoking. The instrument is untimed, group administered, and may be given by a classroom teacher. Administration time is about 20-25 minutes. Detailed findings for a sample of 605 high school seniors in San Diego, California, are reported. No other technical data was available.

Horn, D., & Waingrow, S. Horn-Waingrow Scale.

A copy of the instrument may be examined in: Okard, F. F., & Others. A scale to differentiate between types of smoking as related to the management of affect. International Journal of the Addictions, 1969, 4, 649-659.

Assesses types of cigarette smoking and reasons for smoking in college students and adults. The Scale has 23 five-point rating scales and provides the following subscale scores: habitual, addictive, negative affect reduction, pleasurable relaxation, stimulation, and sensorimotor manipulation. The instrument is untimed and self administering. Subscale score data by sex and findings for a national sample are reported. Correlations between subscale scores and average number of cigarettes smoked are available. No other technical data was available for review.



Horn, D., & Others. Smoker's Self-Testing Kit.

From: Superintendent of Documents, U. S. Government Printing Office, Washington, District of Columbia 20402 (p1969). Public Health Service Publication No. 1904 (Revised).

Measures knowledge and opinions about cigarette smoking in adolescents and adults. There are four tests, each containing a number of rating scales. Test 1 is concerned with whether the examinee really wants to quit smoking. Subscores are provided in the areas of health, example setting, esthetics, and mastery or self-control. Test 2 pertains to views on the effects of smoking and has subscores in the areas of importance in regard to health, personal relevance, value of stopping, and capability for stopping. Test 3 deals with reasons for smoking and has subscores for stimulation, handling, pleasurable relaxation, tension reduction, psychological addiction, and habit. Test 4 is concerned with the influences around a person which may make it easier or harder for him to change his smoking habits. Subscores for this test are doctors, general climate, advertising influence, key group influences, and interpersonal influences. The Kit is untimed and self administering. The Tests are followed by an explanation of each separate Test and the meaning of each subscore. No technical data was available for review.

Kilander, H. F. Information Test on Smoking and Health.

From: Glenn C. Leach, Department of Education, Wagner College, Staten Island, New York 10301 (c1964).

Assesses smoking habits and knowledge about tobacco and its health effects in high school and college students and adults. The first part of the test, consisting of 8 (non-smokers) or 12 (smokers) questions (multiple choice or rating scale), deals with reasons for starting or not starting to smoke, reasons for continuing to smoke, and smoking habits. The second part of the test has 25 multiple choice items on nicotine, tobacco products, smoking, lung cancer, heart disease, and related subjects. This second part is based on the Surgeon General's Report, Smoking and Health. The test is untimed, group administered, and may be given by a classroom teacher. No technical data was available for review.

Kilander, H. F. Information Test on Stimulants and Depressants.

From: Glenn C. Leach, Department of Education, Wagner College, Staten Island, New York 10301 (c1957, c1966).

Measures knowledge of stimulants and depressants in high school and college students and adults. The 33 multiple choice items ask about alcohol, nicotine, opiates, caffeine, marijuana, barbiturates, tranquilizers, amphetamines, drug addiction, and narcotics in general. The test is untimed, group administered, and may be given by a classroom teacher. No technical data was available for review.



Kirchoff, H., & Rigdon, R. H. Smoking History Questionnaire.

A copy of the instrument may be examined in: Kirchoff, H., & Rigdon, R. H. Smoking habits of college students in Texas. Texas Reports on Biology and Medicine, 1954, 12, 292-299.

Assesses the smoking history of college students and adults. The 30 items (completion, yes/no, or multiple choice) deal with cigarette, cigar, and pipe smoking practices, smoking history, and demographics. The Questionnaire is untimed and self administering. Selected item response data and detailed findings are reported for samples of 21,612 Texas adults (10) and 6,374 Texas college students (reference above). Evidence of test-retest reliability is presented. No other technical data was available for review.

Kirk, J. Dope Use Questionnaire.

From: Jerome Kirk, School of Social Sciences, University of California, Irvine, California 92664.

Assesses drug use practices in secondary school and college students and adults. The 171 items (multiple choice or free response) pertain to the use of 16 classes of drugs, including alcohol, caffeine, tobacco, glue, and non-prescribed, controlled drugs. The main body of the Questionnaire asks 41 questions about drug use practices, drug use history, and reasons for use with regard to each of three drugs which the respondent enjoys using. The Dope Use Questionnaire was used in conjunction with a Background Questionnaire (35 multiple choice or free response items on personal data and demographics), Values Questionnaire (10 multiple choice items in which the respondent chooses the best and worst ideas from a set of three on a topic), and a general Attitude Inventory (85 true/false items). The instrument is untimed and self administering. Findings for samples of students and "hippies" ("street people") are reported (11). No other technical data was available for review.

McKennell, A. C., & Bynner, J. M. McKennell-Bynner Smoking Attitude Scales.

A copy of the instrument may be examined in: McKennell, A. C., & Bynner, J. M. Self images and smoking behavior among school boys. British Journal of Educational Psychology, 1969, 39, 27-39.

Assesses the way that males of age 11 to 15 perceive themselves in relation to the smokers and non-smokers among their peers. The instrument consists of 19 three-point semantic differential rating scales against which the respondents rate each of the following four concepts: boy smoker, boy non-smoker, self, and ideal self. The Scales have three subscores with respect to each concept (computed by use of loadings derived from factor analytic studies): Educational Success (neatness, cleanliness, success at school work and sports, ability to think and plan ahead), Toughness ("masculine" attributes, sociability), and Precocity (desire to be grown-up, interest in girls). The items on the final Scales were selected from those in the pretest

pool for their ability to discriminate between attitudes toward smokers and non-smokers. The instrument is untimed, group administered, and may be given by a classroom teacher. Mean subscores and findings for a sample of 5,601 boys from 60 schools in England and Wales are reported. No other technical data was available for review.

Morison, J. B., & Medovy, H. Winnipeg Cigarette Smoking Habits Questionnaire.

A copy of the instrument may be examined in: Morison, J. B., & Medovy, H. Smoking habits of Winnipeg children. Canadian Medical Association Journal, 1961, 84, 1006-1012.

Assesses smoking practices of students from Grade 5 through Grade 12. The Questionnaire has 8 multiple choice items dealing with smoking habits, smoking history, and parental smoking practices. This instrument was used in Winnipeg in 1960 to establish baseline data for a three-year smoking education program. Another questionnaire with the same 8 items and 3 other items on the health hazards of smoking was utilized in the evaluation of the program in 1963 (12). The instrument is untimed, group administered, and may be given by a classroom teacher. Item response data and detailed findings for samples of 21,884 (1960) and 23,686 (1963) students are reported. Evidence of face validity is presented. No other technical data is available.

Oklahoma Workshops on Alcohol and Narcotics Education. Oklahoma Stimulants and Depressants Test.

A copy of the instrument may be examined in: Oklahoma Workshops on Alcohol and Narcotics Education. Alcohol and Narcotics Education Curriculum Bulletin. Oklahoma City, Oklahoma: Oklahoma State Department of Education, 1957.

Measures drug knowledge in high school students. The 40 multiple choice items are concerned with drugs in general, alcohol, nicotine, narcotics, caffeine, and other stimulants and depressants. The measure is untimed, group administered, and may be given by a classroom teacher. No technical data was available for review.

Pollock, M. B. Mood-Altering Substances: A Behavior Inventory.

From: Marion B. Pollock, School Health Education Study, 1507 M Street, N.W., Room 800, Washington, District of Columbia 20005 (cl967).

Assesses knowledge and behavior in high school and college students with regard to drugs. There are 5 yes/no and 75 multiple choice items. The first part of the *Inventory* asks about the student's usual practices in the use of cigarettes, alcohol, dangerous drugs, and narcotics, and about his parents' smoking habits. The second part tests his knowledge of the drugs and their



physiological and psychological effects. The *Inventory* has subscores for tobacco; dangerous drugs and narcotics; and alcohol. Z-score, T-score, and percentile norms are available on the subtests. The test is untimed, group administered, and may be given by a classroom teacher. At present it is intended for approved experimental use only. Odd-even reliabilities, evidences of content validity, instructor observations on validity, test-retest results, judge ratings of validity, and comparisons of test results for those who have and have not had a course on the subject are reported.

Salber, E. J., & Others. Attitudes and Beliefs About Smoking Scale.

A copy of the instrument may be examined in: Salber, E. J., & Others. Smoking behavior, recreational activities and attitudes toward smoking among Newton secondary school children. *Pediatrics*, 1963, 32, 911-918.

Assesses attitudes and opinions about smoking in junior high and senior high school students. The instrument has 8 yes/no or multiple choice items with regard to smoking practices, smoking and health, and school attitude on smoking. Four of the items form a Guttman Scale. The Scale is untimed, group administered, and may be given by a classroom teacher. Selected item response and Guttman Scale score data and findings for a sample of 6,810 students in Newton, Massachusetts, are available. The coefficient of reproducibility is reported. No other technical data was available for review.

Sallak, V. J. Smoking Habits Questionnaire.

From: V. J. Sallak, Buffalo and Erie County Tuberculosis and Health Association, 766 Ellicott Street, Buffalo, New York 14203 (p1958).

Assesses smoking practices in junior high and senior high school students. The 8 multiple choice or yes/no items, some with more than one part, deal with cigarette, cigar, and pipe smoking habits and history. Respondents are classified as non-smokers, experimenters, completed experimenters, or smokers. The instrument is untimed, group administered, and may be given by a classroom teacher. The Questionnaire is usually completed in about 12 minutes. Selected age item response and age classification data, and detailed findings for a sample of 2,159 Erie County (New York) students are reported (13, 14). Evidence of validity is presented. No other technical data was available for review.

Straits, B. C. Chicago Smoking Behavior Intensive Questionnaire.

From: Bruce C. Straits, Department of Sociology, University of California, Santa Barbara, California 93106 (p1962).

Assesses cigarette smoking practices and attitudes in adults. The Question-naire has 63 items (multiple choice, yes/no, or free response), some with several parts. There are separate sequences of questions for smokers who have never attempted to stop smoking; smokers who have tried to quit, but have not been able to do so; former smokers; and non-smokers. The items deal with smoking practices, attitudes toward smoking, general attitudes, smoking history, reasons for smoking, smoking knowledge, smoking practices of close associates (this is checked by a 3-item snowball questionnaire for the named persons), and personal data. The Questionnaire is untimed and individually administered as a scheduled interview. Some experience in interviewing is needed. Findings for a sample of Chicago males are reported (15, 16). No other technical data was available for review.

Tandy, R. E. Tandy's Semantic Scale for Attitudes Toward Smoking.

From: Ruth E. Tandy, Department of Health, Texas Woman's University, Denton, Texas 76201 (p1966).

Designed to measure attitudes toward smoking in junior high and senior high school students, and adults. The Scale uses ten 9-point semantic differential items. These adjective pairs are applied to twelve different concepts, six related to smoking and six fillers. The Scale yields the usual evaluation, potency, and activity factor scores for each smoking concept separately and for the six concepts combined. The instrument is untimed, group administered, and may be given by a classroom teacher. Selected mean scores and findings for samples of middle class seventh graders are reported (17). No other technical data is available.

Thompson, C. W. Thompson Smoking and Tobacco Knowledge Test.

From: Clem W. Thompson, Professor of Health Education, Mankato State College, Mankato, Minnesota 56001 (c1967).

Measures knowledge of smoking and tobacco in junior high school, senior high school, and college students. The instrument has 43 multiple choice items. The first part (18 items) has questions on personal characteristics, smoking practices, and parental smoking habits, and rating scales on factors related to the respondent's starting or not starting to smoke. The second part (25 items) deals with knowledge of historical, sociological, and economic concepts related to tobacco, and knowledge of the physiological effects of smoking. The test is untimed, group administered, and may be given by a classroom teacher. Less than 30 minutes are required to complete the test. The mean score on the second part of the test for more than 3,000 college and 1,000 high school students is reported. Item difficulty indices are available (19). Validity of concepts contained in items was judged by separate panels of medical and educational experts (9). No reliability studies were available for review.



Ward, W. Ward Smoking Habits Questionnaire.

From: William Ward, Department of Sociology, Augustana College, Rock Island, Illinois 61201 (p1964).

Assesses cigarette smoking habits in junior high and senior high school students. The Questionnaire has 23 multiple choice items, some with more than one part. The items concern cigarette smoking practices, parental smoking habits and education, school sport participation, school group participation, and personal data. The Questionnaire has an Index of Personal-School Factors, measuring extra-curricular participation, level of educational aspiration, and chronological school progress, and may be given by a classroom teacher. Item response data and detailed findings for a sample of Rock Island County (Illinois) students are reported (20). No other technical data was available.

Ward, W. Ward Smoking Practices and Attitudes Questionnaire.

From: William Ward, Department of Sociology, Augustana College, Rock Island, Illinois 61201 (p1964).

Assesses cigarette smoking practices and attitudes in junior high and senior high school students. The *Questionnaire* has 14 multiple choice items, some with several parts. The items pertain to cigarette smoking practices, attitudes toward smoking, family smoking practices and attitudes, and background data. The instrument is untimed, group administered, and may be given by a classroom teacher. Item response data and detailed findings for a sample of Rock Island County (Illinois) students are reported (20). No other technical data was available.

Weir, J. M. Weir Student Perceptions of Smokers Measure.

A copy of the instrument may be examined in: Weir, J. M. Male student perceptions of smokers. In S. V. Zagona (Ed.), Studies and issues in smoking behavior. Tucson, Arizona: University of Arizona Press, 1967. Pp. 151-155.

Assesses the descriptive cue function or expressive value of cigarette smoking in teenagers. The student's perception of smokers is investigated by use of two sets of four pictures (two males, two females), identical except for presence or absence of smoking cues. Two alternate forms are used with each group tested. Form A has one smoking and one non-smoking male, one smoking and one non-smoking female. Form B has the opposite picture of each model. Examinees describe each picture by use of an 80-item adjective check list. The instrument is untimed, group administered, and may be given by a classroom teacher. Cluster analyses of the complete adjective list and of the adjectives differentiating the smoking and non-smoking stereotypes for a sample of male high school students in Berkeley, California, are reported. No other technical data was available.



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