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Measuring the interests of adolescents by means of "The activity preference inventory"

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MEASURING THE INTERESTS OF ADOLESCENTS BY MEANS OF "THE ACTIVITY PREFERENCE INVENTORY"

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CHAPTER I

THE PROBLEM

> Suddenly a light dawned. Here they were, pursuing their own tastes independently of the classroom .... How little I had made of the interests of those girls who came so punctually, so politely, to classes and interviews at stated hours! .... Behind the things imposed by their courses and by us, each student was, in her own right, her developing self. Her discoveries, her interests, pushing out from the centre of her individuality, these were the things that ultimately mattered.1/

Purpose of the Study

Educators long have been admonished to take the child as they find him and begin their work at that point. One of the serious drawbacks in the carrying out of this premise is that its interpretation has been too narrow. It is true that noteworthy progress has been made in the development of techniques for assessing mental capacity, and also in the methods of preventing, diagnosing, and treating physical disturbances. However, only in very recent years has much attention been paid to the consideration of a person's interests as a contributing factor in the total picture of that individual.

Since the advent of this idea, much valuable research has been done and has taken tangible usable form in the shape of interest inventories. However, there is much unexplored territory, and there are many unsolved problems in this area of

1/Esther Cloudman Dunn, Pursuit of Understanding, MacMillan, New York, 1945, pp. 164-165.

evaluation and guidance. Hence, the fundamental purpose underlying this dissertation is to probe more deeply into the interest patterns of adolescents and to study the stability of these patterns from grade to grade, in an effort to determine the significance of interests at the secondary school level for educational, vocational, and avocational guidance. The vehicle for pursuing this goal is an instrument called the ACTIVITY PREFERENCE INVENTORY, planned solely for adolescents and built entirely around adolescent interests.

Justification for the Study

When a teacher takes a child as he is, it is implied that that teacher will make every effort to understand all the factors contributing to that child's make-up. This is just another way of stating the need for providing for individual differences among pupils. Within the last two decades, the factor of interest has become a major element of this individual difference concept due to increasing emphasis on the fact that interest is a prime requisite to a happy adjustment to many of life's problems.

Much constructive work has been done already, yet there seem to be two needs not served by any currently available instruments for assessing the interests of adolescents.

One of these needs is to meet the teen-ager on his own level and not to require him to project himself into adult areas of experience and preferences. An instrument that is geared to the adolescent span of years and stays there with

him cannot help but give a more accurate measure of the young person than one which makes it necessary for him to shuttle constantly back and forth mentally between actual adolescence and extrapolated adulthood during the time he is completing the interest inventory.

The second need is the incorporation, within the parameters of one instrument, of a body of content which, for adolescents, will serve the three broad areas of guidance - vocational, educational, and avocational. Most of the existing inventories are founded largely on occupational preferences, thus being primarily measures of vocational interests. A few include educational interest areas, but there is hardly any attention paid to avocational interests so far as standardized measuring instruments are concerned. And in no single instrument are all three openly purported to exist. Yet all three phases are vital in helping the adolescent to make the necessary adjustments to the environment in which he finds himself and to better assist him in developing his own philosophy of life.

Thus an intensive study of basic research relating to interest measures seemed to justify the need for an instrument based solely on the interests of adolescents, and motivated the construction of the interest inventory which is the major tool of research in this study.

Scope of the Study

This dissertation is merely the orientation to a long-range program of study which will require the collection and

analysis of data from many samples over a long period of years. The core of this segment of the study is a four-fold treatment of the experimental edition of the Allen-Durost ACTIVITY PREFERENCE INVENTORY devised by the author with the assistance and advice of Dr. Walter N. Durost of the Boston University faculty. Included are: 1) its construction; 2) its initial tryout; 3) analysis of the results; and 4) significant findings. The population to which this instrument was administered consisted of 760 pupils in grades 9 to 12 inclusive from two high schools in Maine and one in Vermont.

Summary of Aims

This study attempts to provide a sound and meaningful addition to the existing evaluative devices in the field of interests, in that it is based entirely on the interests of adolescents while they are adolescents and does not project them into any areas of adulthood, academically, vocationally, or socially. It is hoped that this intensive study of the interest patterns of secondary school students, by the use of the ACTIVITY PREFERENCE INVENTORY, will yield a valuable means for immediate, purposeful guidance at the high school level, and that results from data gathered over a period of years may validate the inventory as a significant measure for predictive purposes beyond the span of the secondary school years.

CHAPTER II

REVIEW OF RELEVANT RESEARCH

"A new field of measurement emerges." With these words, Fryer,[1] in 1931, was proclaiming the attainment of another milestone in the developmental pattern of modern education. For ten years he had been watching this new phase of the educative process unfold and develop in various parts of the country, and then had assembled a valuable compilation of all the researches relevant to the early stages of interest measurement with their resulting generalizations and theories.

Functional Concept of Interest

There is no single statement which is acceptable as the sine qua non of defined interest. The psychologists as well as the authors of articles or monographs on the subject have formulated their own definitions as cornerstones for their approach to the problem. However, it is the part played by interests in the behavior of the individual rather than a theoretical definition of the term that is of most concern to educators.

Brink,[2] in his book on meaningful ways to direct study

1/Douglas Fryer, The Measurement of Interests, Henry Holt and Company, New York, 1931, p. v.

2/William G. Brink, Directing Study Activities in Secondary Schools, Doubleday, Doran and Company, New York, 1937, p. 70.

activities, describes this functional role as follows:

> "From the time of birth throughout the span of life, the normal individual responds to certain stimuli and complexes of stimuli. If a phase of response to certain of these stimuli is a feeling of pleasure, we commonly say that he has developed an interest."

From the guidance angle, Darley[1] interprets interests in terms of their resulting factors - likes or dislikes of things, people and activities.

Writing on aptitude and those factors connected with it, Bingham[2] defines interest as "a tendency to become absorbed in an experience and to continue it, while an aversion is a tendency to turn away from it to something else."

A more technical definition of interest which will find its counterpart in many another psychology is given by Witherington.[3] "Interest is a person's awareness that an object, person, issue, or situation concerns him."

Each of the above ideas represents the slant of an expert in a particular field - guidance, measurement, psychology, teaching - yet all point to the functional non-technical concept of interest, classifying it in terms of any object or activity which brings satisfaction to an individual. Such a consideration of interest constitutes a logical approach to

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1/John G. Darley, Testing and Counseling in the High School Guidance Program, Science Research Associates, Chicago, 1943, p. 38.

2/Walter V. Bingham, Aptitudes and Aptitude Testing, Harper and Brothers, New York, 1937, p. 62.

3/H. Carl Witherington, Educational Psychology, Ginn & Co., Boston, 1946, p. 76.

meaningful assessment of pupil interests by the classroom teacher and/or counselor.

Significance of Interests

During the first half of the present century much has been heard and written about the "whole child," "the child-centered school" and making the "school to fit the child rather than the child to fit the school." One of the most vital factors to consider in attaining these goals is that of children's interests.

Blair[1] prefaces his study of mentally superior and inferior junior and senior high school pupils of Everett, Washington by stating that pupil interest should be a criterion in determining what educational procedures to pursue.

Buck,[2] addressing parents in lay language, calls interest the trump card in the teacher's hand.

Horrocks,[3] a professor of educational psychology, in trying to "whittle down the number of square pegs," laments the fact that so often the student's point of view is entirely overlooked in planning his school program for him, while

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1/Glenn M. Blair, Mentally Superior and Inferior Children in the Junior and Senior High School, Teachers College Contributions to Education No. 766, New York, 1938, p. 25.

2/D. P. Buck, "Show Them a Good Time," Parents Magazine 24, January, 1949, p. 89.

3/John E. Horrocks, "Round Pegs in Square Holes," School Executive 63, January, 1944, p. 24.

Clawson,[1] an applied psychologist, goes so far as to say that "what passes for stupidity is often lack of interest."

As the pupil progresses in his formal school education, he comes increasingly nearer to the threshold of the world of work. The significance of a consideration of interests found root early in the area of vocational guidance. In 1930, the National Vocational Guidance Association[2] appointed a research committee on the measurement of interests and some fifty key people in the field at that time went to work on as many topics upon which further careful research was needed.

In 1927, McCall,[3] outlining steps in vocational guidance in one of the chapters of his measurement text, named pupil purpose, strength of interest and preference as equally important considerations in selecting an occupation, because "every increase in interest materially increases the chances for occupational success."

The schools took the lead but industry did not lag far behind in taking cognizance of the fact that interest was an essential component of an individual's work experience. Cooley, Rodgers and Belman[4] in their career book corroborate

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1/Joseph Clawson, Psychology in Action, Macmillan, New York, 1947, p. 4.

2/National Vocational Guidance Association Committee upon the Measurement of Interests, "Outlook in the Measurement of Interests;" Personnel Journal 9, August, 1930, pp. 176-183.

3/William A. McCall, How to Measure in Education, Macmillan, New York, 1927, p. 184.

4/Robert L. Cooley, Robert H. Rodgers, Harry S. Belman, My Life Work, McGraw-Hill, New York, 1930, p. vii.

this when they say that "all work is hard unless you care for it and are interested in it; interest is to work what oil is to machinery."

Beyond the realms of school and industry, a consideration of interests is significant for all of life's aspects. The concept of interests is not new. Before the turn of the century, James,[1] in his psychological treatise, drives home the importance of interests:

> "Interest alone gives accent and emphasis, light and shade, background and foreground - intelligible perspective, in a word. It varies in every creature, but without it, the consciousness of every creature would be a gray chaotic indiscriminateness, impossible for us even to conceive."

Brink[2] incorporates the same principles into different wording:

> "The richness and fullness of life at each level of maturity depend upon the number and variety of one's interests. Bereft of interest, life indeed would be dull and meaningless, if not actually impossible."

Adults know that they are happiest when they are doing that which they like to do. The same is true for young people. They, too, have interests on which teachers, parents and all other workers with youth should capitalize. The above statements, be they from education, psychology, or industry, clearly demonstrate the significance of interests as a prime factor in guiding young people educationally, vocationally or avo-

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1/William James, Principles of Psychology, Volume I, Henry Holt and Company, New York, 1890, p. 402.

2/William G. Brink, op. cit., p. 71.

cationally.

Role of Adolescent Interests

To many an adult, adolescents are problems. Even more, to teen-agers, "self" problems are their biggest ones. Their maturing bodies are phenomenally strange to them; their minds, seeking wider horizons, are occupied with wondering and hoping; and their emotions, in an almost constantly stirred up state, demand new and different outlets. These young people are trying to develop a blueprint for their own lives, and their interests are a major influence in formulating this plan. This is well stated by Witherington:[1] "In brief, a person's whole philosophy of life or set of values is determined by what he is interested in, that is, what he thinks concerns him."

That these interests are not trivial matters of "happenstance" without basis or reason is indicated by Garrison[2] in relating adolescent interest to instruction:

> "The nature of the child's experiences determines in a large measure not only the interests and attitudes but the direction the growth of such interests and attitudes will take. The individual's interests and attitudes at the time he enters high school are not static but are dynamic."

It readily may be seen that adolescent interests are not to be ignored but rather, that they must be dealt with understandingly and directed wisely. According to Hurlock[3] in her

1/H. Carl Witherington, op. cit., p. 77.

2/K. C. Garrison, "Adolescent Interest in Relation to Instruction," High School Journal 19, January, 1936, pp. 14-15.

3/Elizabeth B. Hurlock, Adolescent Development, McGraw-Hill, New York, 1949, p. 208.

book on adolescent psychology,

> "....because an opportunity to engage in activities related to interests plays such an important role in the state of satisfaction that exists, it is of practical importance not only to give outlets for interests in activities related to these interests but also to develop interests in activities that are necessary in the life of the individual. Inasmuch as adolescence is a period of preparation, and of adjustment to, adult life, the logical conclusion would be to regard this period as one in which interests of a healthy, useful sort should be developed; and interests that will interfere with success in adult life should be modified and changed."

Further emphasis on the importance of interests as a motivating factor in the lives of young people is expressed by Dougan[1/] who thus expresses the place of interest in his philosophy of education:

> "Idle curiosity is not to be confused with the term genuine interest. When we include interest as one of the primary factors necessary for the education of the child, we do not mean that the work must be made easy and unobjectionable in every detail. What we mean is, that we shall secure some driving force which will lead the child in overcoming all obstacles so that he can accomplish the tasks before him and achieve the object of his interest."

Satisfactory Individual Adjustment Through Interests

Every individual must live his own life and with each succeeding year, more is expected of the adolescent in the way of self-reliance and emotional stability. That a well-adjusted person has a wide range of interests and that "those who are the victims of social conflicts have a narrower range of interests" is the generalization of Berdie[2/] who interviewed

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1/H. Dougan, "Place of Interest in My Philosophy of Education," Education 50, December, 1929, p. 212.

2/R. F. Berdie, "Range of Interests," Journal of Applied Psychology 29, August, 1945, pp. 268-281.

two samples of Marine recruits, the first a group of 200 selected at random at the completion of their physical exam, the other 68 recommended by the psychiatric unit for inaptitude discharges.

Thus it is imperative that teachers and guidance workers have as much knowledge as possible concerning the interests of young people, and that the backlog of this knowledge be built up from the childhood years.

Carter and Strong[1] after their study of the results of a widely used interest blank with 268 junior and senior high school pupils from San Francisco and its environs, stress the need of beginning early to consider the interests of boys and girls. This same study also revealed that these young people took their interests very seriously.

Sympathetic understanding and appropriate guidance in adolescence may save young people from later traumatic experiences and a full understanding, according to Hildreth,[2] in indicating the value of an interest inventory for high school personnel work, is not reached unless adequate information is possessed concerning a large number of activities and fields of interest.

1/H. D. Carter and E. K. Strong, Jr., "Sex Differences in Occupational Interests of High School Students," Personnel Journal 12, October, 1933, pp. 166-175.

2/Gertrude Hildreth, "An Interest Inventory for High School Personnel Work," Journal of Educational Research 27, September, 1933, pp. 11-19.

That interests and personality are interwoven in the same basic pattern is noted in a summary of research on the measured interests of adolescent girls by Tyler[1] who says that "interests are an integral and very important part of the complex of traits we call the personality."

However, not every interest manifested by an individual is an acceptable one. Unfortunately, while many interests need to be nurtured further, others may need to be replaced or re-directed. Hurlock[2] poses this problem as follows:

> "It is important to know what are the common and most absorbing interests of adolescent boys and girls of today because their interests are strong factors in motivating their behavior. Furthermore, knowledge of the interests of adolescents makes it possible for adults whose responsibility it is to guide the adolescents through the transition period to maturity to appraise these interests to see which need to be redirected, which can profitably be strengthened, and what new interests should be cultivated through environmental stimulation."

Armstrong,[3] in stating the implications of the doctrine of interest for curriculum development, advocates the functional approach to education in terms of an individual's interests. He qualifies this by saying "to be functional, however, does not mean that they must contribute directly to vocational success. Each individual must live not only with other people but also with himself....The extreme realists in education are

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1/L. E. Tyler, "Measured Interests of Adolescent Girls," Journal of Educational Psychology 32, November, 1941, pp. 561-572.

2/Elizabeth B. Hurlock, op. cit., p. 209.

3/W. E. Armstrong, "Implications of the Doctrine of Interest for Curriculum Development," California Journal of Secondary Education 11, December, 1936, p. 502.

likely to overlook the values of inner satisfaction in the integration of the individual."

Interests in Vocational Guidance

When "guidance" took its place in the nomenclature of educational practices it was synonymous with vocational guidance. For long years all guidance was in terms of giving help to young people in the selection of their life work. This is still the major objective of much of the guidance currently given in the schools. This objective is by no means to be minimized, for one's occupation is the medium by which the average individual is able to meet the economic demands of our American civilization and provide for the basic needs of himself and his family. Hence, interest in vocational guidance seldom needs any motivation, and as Strong,[1/] an outstanding researcher in the vocational interest field, says, "....selection of a future vocation is a real problem for all students."

Bedford,[2/] who surveyed the interests of 1211 students in twelve rural high schools of California, finds the period between the sophomore and junior years of the high school, characterized by change and readjustment, a critical period in the lives of most adolescents, and maintains that vocational

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1/E. K. Strong, Jr., Vocational Interests of Men and Women Stanford University Press, Stanford, 1943, p. 28.

2/J. H. Bedford, "A Study of Vocational Interests of California High School Students Based on a Survey of Twelve Rural High Schools," California Quarterly of Secondary Education 5, October, 1929, pp. 47-66.

guidance, dealing as it will with concrete life situations, will challenge the interests of boys and girls at this time.

Two of the important objectives of vocational guidance for an individual are stated by Bingham:[1]

1) to find out whether he will probably like to do the work of the occupation in question

2) to ascertain whether the personal relationships within the occupation will probably prove to be congenial

Fowler,[2] in a question-and-answer treatment of the problem of interest measurement, states that "an interest test can give little aid to a counselor unless the meaning which it has for occupations, or occupational areas is known."

A different opinion concerning the value and use of interest measures is held by Kitson,[3] a well-known guidance proponent:

> "The various interest inventories on the market carry the idea that they will reveal the vocational interest that Johnny has been concealing .... But the majority of youth reach high school and even college age without possessing a deep interest in any vocation."

However, the successful use of interest inventories for vocational counseling is evidenced by their wide usage. Rather than using inventories which assign a person to a specific occupation, several advocate emphasis on guidance in

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1/Walter V. Bingham, op. cit., p. 61.

2/F. M. Fowler, "Interest Measurement - Questions and Answers," School Life 28, December, 1945, pp. 35-39.

3/Harry D. Kitson, "Creating Vocational Interest," Occupations 20, May, 1942, pp. 567-571.

broad areas or groups of occupations. Dunlap and Harper,[1] in explaining their method of reporting profiles from the interest scores on the Dunlap Academic Preference Blank, discourage the "tendency to counsel students in terms of the specific occupations for which the blank happens to be scored" and encourage the "wiser procedure of generalizing as to direction of interest."

Giles,[2] in justifying his picture test, says that "a test for a group of interests is a sounder device for the examination of the occupational interests of adolescents."

Kopp and Tussing,[3] in comparing the vocational choices of 606 high school students in Burbank, California with the scores of the Strong Vocational Interest Blank and the Kuder Preference Record stress the need of vocational orientation in high school being done in terms of broad vocational areas.

In their book of guidance techniques, Paterson, Schneider and Williamson[4] state that one of the chief values of interest inventories lies in the fact that they permit comparisons between individuals and occupational groups in terms of likes

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1/Jack W. Dunlap and Bertha P. Harper, "Profiles of Interest Scores," Journal of Higher Education 15, March, 1944, pp. 159-160.

2/G. R. Giles, "New Interests Test," Journal of Educational Psychology 27, October, 1936, pp. 527-536.

3/T. Kopp and L. Tussing, "The Vocational Choices of High School Students as Related to Scores on Vocational Interest Inventories," Occupations 25, March, 1947, pp. 334-338.

4/Donald G. Paterson, Gwendolen Schneider, and Edmund G. Williamson, Student Guidance Techniques, McGraw-Hill Company, New York, 1938, pp. 39-40.

and dislikes but very vigorously they say that "there is no single magical formula which will reveal the ideal occupation for the individual."

Another important consideration in connection with vocational interests is the mental health factor. Darley[1] brings this to the fore in the following significant statement: "If our vocational choices, or expressions of interests, are impractical or impossible, we may lead unhappy and frustrated work lives."

This idea is forcibly reiterated by Andrews[2] in her study of 72 entering freshmen at Stanford in terms of their interests:

> "The unhappy, unsuccessful worker is a liability to his employer. He cannot render services commensurate with what he is paid, and he may find himself out of that job and unprepared for any other type of employment. He is then a burden not only to himself but may shortly be a burden to society as well. In addition to becoming an economic burden to society through unemployment, his physical and mental health may break because of the frustrations and nervous tensions he has experienced, thereby becoming an additional and perhaps even a permanent burden to society."

Interests in Educational Guidance

Important as vocational guidance is, it can never achieve its maximum potential without taking into account educational guidance. Long before a student is ready for vocational guidance as such, he needs educational guidance, and this

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1/John G. Darley, Loc. sit.

2/M. E. Andrews, "The Relationship between Reading Ability and Interest Scores," Journal of Educational Psychology 33, February, 1942, pp. 138-143.

should include, according to Garretson[1] in his study of the relationship between the expressed preferences and curricular abilities of 1582 ninth grade boys, "investigations of pupil preferences .... at the close of the pupil's elementary or at the beginning of his secondary training (for) it is at this point in his educational experience that specialization of subject matter usually begins."

Although Strong[2] states that "vocational guidance ought to be more stressed than educational guidance," he qualifies this by saying that one's point of view depends largely on whether or not preparation for further education or for immediate entrance into an occupation is intended. If the first is true, educational guidance is vocational guidance, for the prospective college student is thinking in terms of his ultimate objective, and the educational guidance is paving the way for the realization of his vocational goal. Yet, if the high school pupil wishes to, or must, go to work at once, perhaps even before his graduation, educational guidance will not serve him as adequately as vocational guidance.

Educational and vocational guidance are not two separate entities entirely independent. There is considerable over-

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1/ Oliver Kellam Garretson, Relationships between Expressed Preferences and Curricular Abilities of Ninth Grade Boys, Teachers College Contributions to Education Number 396, 1930.

2/ Edward K. Strong, Jr., op. cit., pp. 27-28.

lapping and Segel and Brintle[1/] confirm this when they state after a study of the relation of Strong Vocational Interest Blank scores to achievement test results and college marks of 100 Long Beach, California Junior College boys that "all the evidence taken together shows that interest questionnaires designed for use in vocational guidance may also be useful in educational guidance."

Interests in Avocational Guidance

For many years the word "curriculum" was synonymous in meaning with "school day." Gradually, "extra-curricular" found its place in the terminology of education and this concept took tangible form in the clubs and organizations which met in the school plant but, as the word derivation implies, were distinctly separate from the curriculum of the school. The values from the extra-curricular program have become recognized increasingly and now these activities are such a vital part of the school pattern that they have been placed on an equal footing with the subject-matter offerings and have been accorded the nomenclature of "co-curricular."

In line with this equality of emphasis should also come a similar ratio of attention to guidance in this area. Thus, avocational guidance should be as important as educational and vocational guidance.

1/David Segel and S. L. Brintle, "The Relation of Occupational Interest Scores as Measured by the Strong Interest Blank to Achievement Test Results and College Marks in Certain College Subject Groups," Journal of Educational Research 27, February, 1934, pp. 442-445.

As Conklin[1] in his work on adolescent psychology says:

> "Life is not merely a matter of work; life is more than that and involves the proper use of much leisure time. It is important that youth be prepared for leisure as for work. Toward this end it is believed that the recreations and amusements and relaxations of youth contribute much if they are wisely chosen and properly developed."

The responsibility of the school in avocational guidance is definitely indicated by Witty and Coomer[2] who surveyed the activities and preferences of 480 pupils in grades 9-12 in Oak Park, Illinois:

> "Guidance cannot proceed far without an understanding of the way the pupil prefers to use his leisure .... The problem here is one of making these avocational pursuits allies in an educational program that is designed to influence the child's behavior during his entire day. Many secondary schools have already inaugurated changes to attain this objective. Far too many schools, however, continue to ignore these agencies and simply deplore the tendency of high school pupils to find their satisfactions in shoddy or limited recreational pursuits .... In other words, the need is for an educational program that will deeply affect the pupil's life design."

That educational, vocational and avocational interests are major considerations for young people is definitely indicated by Billett and Yeo[3] in their recent book on guidance where they sum up the role of interests in the lives of adolescents in the following "tips to teens":

1/Edmund S. Conklin, Principles of Adolescent Psychology, Henry Holt and Company, New York, 1935, p. 58.

2/P. A. Witty and A. Coomer, "Activities and Preferences of a Secondary School Group," Journal of Educational Psychology 34, February, 1943, pp. 65-76.

3/Roy O. Billett and J. Wendell Yeo, Growing Up, D. C. Heath and Company, Boston, 1951, pp. 233-235.

1) You need to develop the kinds of interests that will enable you to make worthy use of your free time.

2) With many interests you will find it easier to make friends and to get along socially than if you have few interests.

3) Your interests will help to determine the amount and the direction of your education.

4) The more well-developed interests you have, the better prepared you will be to choose a vocation.

The school has expanded its program to include provision for the needs and growth of youth mentally, physically, emotionally and socially. In so doing, the factor of interests should be in the foreground of things to consider in adequately serving the needs of adolescents. Cole,[1/] in her book on adolescent psychology, summarizes the part interests could well play in the lives of young people of secondary school age:

> "Many of these interests could obviously become the bases for lifelong hobbies; others could develop into occupations; some could furnish highly approved means for self-expression. If a school is wise, it encourages as many interests as possible and then guides them so that they lead the adolescent into a happier and better-adjusted life."

Sex Differences in Interests

There is general agreement that sex differences in interests are found in adolescents. From both the expressed and manifest interests of young people as well as their conversational topics this is evident. Hence, any intensive study

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1/Luella Cole, Psychology of Adolescence, Third Edition, Rinehart and Company, Inc., New York, 1948, p. 499.

of the interests of adolescents should be done for each sex separately.

Strong[1] found that interests are different for the two sexes and although he offers no conclusive proof he suggests three possibilities for these differences: different bringing up for each sex; possession of different abilities; and/or possession of different fundamental drives. In studying an adolescent sample of over 500 from ages 13-8 to 19-0, he found a high degree of constancy in the sex differences, his data indicating that there was neither an increase or a decrease in the amount of differences from age to age.

Although Super[2] in his appraisal of vocational fitness agrees without reservation that there are sex differences in interests, he prefers to treat these as "scaled traits rather than dichotomies: people are not masculine or feminine in their interests, but more or less masculine or feminine."

Barry[3] in a study of the interests of 1500 seniors in 50 high schools where the Kuder Preference Record was used recommended that separate norms for boys and girls be established.

In his survey of the problems and interests of adolescents using 663 college people, 1635 high school students and 184

1/Edward K. Strong, Jr., op. cit., pp. 216, 228-229.

2/Donald E. Super, Appraising Vocational Fitness, Harper and Brothers, New York, 1949, p. 389.

3/Cora M. Barry, "Kuder Preference Record Norms Based on Measurements Made on High School Seniors," Occupations 22, May, 1944, pp. 487-488.

adults, Symonds[1] found that the sex differences were greater in the period of late adolescence.

In the realm of interests involving social factors, Davis and Taylor,[2] summarizing the research of approximately 150 investigations on interests, found that for the most part girls seemed to be more attracted to social activities than boys. Hildreth[3] also found this true in her study of 87 boys and 105 girls in a New York City junior high school, and attributed it to social maturation which, like sex maturation, seems to come earlier in girls than in boys.

Thus, investigations tend to prove that there are differences in interests between the sexes although these probably are more overlapping than strictly independent; that these differences are relatively constant throughout the teens; and that the factor of age as well as sex operates in the difference of interests of a social nature.

Stability of Adolescent Interests

Another of the major problems dealing with the study of interests is their stability. Van Dusen,[4] after administering

1/P. M. Symonds, "Changes in Sex Differences in Problems and Interests of Adolescents with Increasing Age," Pedagogical Seminar 50, March, 1937. pp. 83-89.

2/R. A. Davis and H. E. Taylor, "Significance of Research on Interests for the Classroom Teacher," Educational Administration and Supervision 29, September, 1943, pp. 357-369.

3/C. H. Hildreth, "Social Interests of Young Adolescents," Child Development 16, March, 1945, pp. 119-121.

4/A. C. Van Dusen, "Permanence of Vocational Interests," Journal of Educational Psychology 31, September, 1940, pp. 401-424.

the Strong Blank to 76 University of Florida students as freshmen and then retesting with the same blank three or more years later, emphasizes the need of utilizing all available knowledge about the permanence of interests so that counselors may use such instruments as are available with confidence because their stability is known through adequate experimental investigation and reporting.

In Jacobs'[1] study, where to one entire grade group of 76 participating in the Educational Research Bureau testing program he gave the Kuder Preference Record at the beginning of their ninth grade year and repeated it near the end of their tenth grade, the correlations obtained between interest scores of successive grades did not change appreciably for the group. However, due to evidences of fluctuation in individual interests during this period, he advises that vocational guidance based on interest test results for the early high school years should be given cautiously and he suggests repeated measurement of interests at that level.

Carter and Jones[2] found much the same situation prevailing when they administered the Strong Vocational Interest Blank to

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1/Robert Jacobs, "Stability of Interests at the Secondary School Level," Educational Records Bulletin 52, July, 1949, pp. 83-87.

2/H. D. Carter and M. C. Jones, "Vocational Attitude Patterns in High School Students," Journal of Educational Psychology 29, May, 1938, pp. 321-334.

208 California high school students in Grade 10. A study of the profile charts of these pupils revealed well-developed patterns of interests for many of them "when extended and careful analysis preceded the interpretation of scores," but they also stress the point that this blank "cannot routinely be applied in the tenth grade."

In one of the first studies of the permanence of early interests conducted by Thorndike[1] in 1917, where he had 344 college students report on remembered early interests, he concluded "that there is permanence of the pupil interests .... that the transition from high school to college marks a more drastic change in interests .... than the transition from elementary to high school (and) .... that there is no point where interests become markedly stabilized." However, these are remembered interests and not those actually dominant at the time of reporting.

Strong has carried out extensive researches on the change of interests with age on both cross-sectional and longitudinal samples. One of his cross-sectional samples,[2] used to determine the general trend in interests with age contained 472 boys 15 years old, 215 men near 25 years of age, and 151 men in the

1/E. L. Thorndike, "Early Interests: Their Permanence and Relation to Abilities," School and Society 5, February, 1917, p. 178.

2/Edward K. Strong, Jr., op. cit., pp. 91, 357.

near-55 age group. Rank order correlations from the scores on the Strong Vocational Interest Blank for Men were:

1) .82 between interests of 15-year olds and 25-year olds.

2) .88 between interests of 25-year olds and 55-year olds.

3) .73 between the interests of 15-year olds and the 55-year olds.

These high correlations betoken larger similarities than differences in interests from the ages of 15 to 55. Although there are some considerable changes in interests in the age range of 15 to 25, "nevertheless interest patterns are really surprisingly stable from 15 years of age on."

A longitudinal study of permanence of interests requires a comparison of test and re-test scores at varying intervals. One of the most common ways of doing this is by running a test-retest correlation on the interval testings. In 1949, Strong[1/] completed a 22-year longitudinal study involving 428 men who in 1927 were seniors at Stanford. In 1932, five years later, they were retested, the test-retest correlation being .84; in 1937 the correlation was .82; and in 1949, at the end of a 22-year period, the initial and final scores correlated .75. These correlations indicate "a greater permanence in interest scores among students than has generally been believed."

1/Edward K. Strong, Jr., "Permanence of Interest Scores over 22 Years," Journal of Applied Psychology 35, April, 1951, pp. 89-91.

Canning, Taylor, and Carter,[1] in studying the permanence of the vocational interests of 64 high school boys of Oakland, California by comparing their Strong Vocational Interest Blank scores as sophomores with their senior ratings, found their re-test scores only a little less stable than the vocational interest scores of recent college graduates. In this study seven of the occupational scales of the Strong Blank were used and the retest coefficients ranged from .48 to .66 with a mean of .57, while in Strong's study[2] of college seniors with which the above study was compared the retest coefficients ranged from .59 to .84, the mean being .73.

Although many studies have produced results which reflect a certain amount of agreement concerning the stability of the interest patterns of adolescents, there are still enough differences to preclude any clear-cut statement which can be considered a safe generalization. Further longitudinal studies are needed before any of the existing hypotheses relative to the permanence of interests can become substantiated truths.

Evolution of Interest Measurement

As already indicated, two forerunners to the measurement of interests as an accepted phase of the evaluative process were the child study movement which received its impetus from

1/L.B. Canning, K.van F. Taylor, and H. D. Carter, "Permanence of Vocational Interests of High School Boys," Journal of Educational Psychology 32, October, 1941, pp. 481-494.

2/E. K. Strong, Jr., "Permanence of Vocational Interests," Journal of Educational Psychology, 25, May, 1934, pp.336-344.

the birth of the interest concept, and the recognition by industry that interest was an important factor in managing its workers.

However, the time interval between the acceptance of the concept of interest and measurement in terms of standardized and statistically refined instruments was wide. Armstrong[1] in 1936 had reminded his readers that the doctrine of interest was not new but at that time had been preached and practiced in various areas of America for at least forty years. Both Herbart[2] and Dewey,[3] two of the early proponents of the doctrine, had published treatises on interest in the early 1900's.

It was not until 1913, when Kelley[4] experimented with an interest questionnaire, using 59 pupils in grades 4 through 9, as a means of analysis and prediction of high school pupils' ability that any attempt was made to evaluate statistically. According to Fryer,[5] Kelley was the first to use the regression equation technique of weighting scores, thus being a pioneer in the application of statistical methods to the problems of

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1/W. E. Armstrong, loc. cit.

2/Johann Herbart, Outline of Educational Doctrine, Macmillan, New York, 1901, pp. 76-92.

3/John Dewey, Interest and Effort in Education, Houghton Mifflin, Boston, 1913.

4/Truman L. Kelley, Educational Guidance, Teachers College Contribution to Education No. 71, New York, 1915.

5/Douglas Fryer, op. cit., pp. 46, 57.

scoring groups of related items.

The next innovation in the field of interest measurement came from Miner[1] who, in his instrument for the analysis of vocational interests, introduced two new features: 1) a classification which took cognizance of the relationship of vocational choice to the fundamental interests of an individual; and 2) the "paired contrast" technique whereby the pupils by marking a first, second, and third choice in the section dealing with work conditions would be able to find definite differences in their individual interests.

Emergence of the Interest Inventory Technique of Measurement

Super[2] refers to four types of approach to evaluating interests which he names and defines as follows:

1) Expressed interest .... the verbal profession of interest in an object, activity, task or occupation.

2) Manifest interest .... synonymous with participation in an activity or occupation.

3) Tested interest .... interest measured by objective tests, as differentiated from inventories based on subjective self-estimates.

4) Inventoried interest .... assessed by means of a list of activities and occupations which bear a superficial resemblance to some questionnaires for the study of expressed interests, for each item in the list is responded to with an expression of preference. The essential and all-important difference is that in the case of the

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1/J. B. Miner, "An Aid to the Analysis of Vocational Interests," Journal of Educational Research 5, April, 1922, pp. 311-323.

2/Donald E. Super, op. cit., pp. 377-379.

> inventory each possible response is given an experimentally determined weight and the weights corresponding to the answers given by the person completing the inventory are added in order to yield a score which represents not a single subjective estimate as in the case of expressed interests, but a pattern of interests which research has shown to be rather stable.

He points out the last-named approach, the interest inventory, as the most widely used of the four, and the one which has produced the most fruitful results in the way of quantifying the pleasant and unpleasant feelings of an individual.

When one speaks of testing or measuring interest, he is speaking loosely. In the first place, there is no such thing as <u>interest</u> used in the same collective sense as intelligence or achievement. There is no finite number of interests; their parameters are endless. A person's interests cannot be spread out onto a plane surface as on a carpet unrolled ad infinitum. Rather, interests are of a global nature, i.e., they may be likened to a ball of variegated yarn, representing the crossing and interweaving of interests, through any segment of which a knitting needle may be thrust; in its penetration it crosses countless strands of "interests" which may contribute to the person's interest patterns as a whole. Secondly, because of the individuality involved in dealing with a person's interests, one cannot consider the objective measurement of interest as one does that of intelligence or achievement; in the evaluation of interests, the usual dichotomy of right or wrong does not hold - each expression of interest is right for

the individual professing such.

The first use of the interest inventory as a technique for interest assessment was for purposes of orientation. Outstanding among the early inventories used for this purpose was Miner's instrument, the aim of which, as given by Fryer,[1] "was to stir the pupil to think about his interests and to bring into focus the things about which he should be thinking." Through the intervening years this objective has still been a major one expanding its area into the adult realm, one example of which is its use in interviews with veterans in hospitals, as described by Brown[2] who says that "to enable the patient to gain recognition of his dominant vocational interests is much more than simply informing him what the interest inventory reveals."

As defined by Fryer,[3] the interest inventory is "a list of interest situations to which one responds by circling those things which he likes or dislikes." He describes this method of interest evaluation as one that "presents to the individual a list of objects and activities which stimulate people, a sampling of all such stimuli, and asks him to estimate his feeling towards these objects just as if they were stimulating him."

1/Douglas Fryer, Op. cit., pp. 27-28.

2/Manuel N. Brown, "Evaluation of Lee-Thorpe Inventory by Veteran Patients," Educational and Psychological Measurement 11, Summer, 1951, pp. 248-254.

3/Douglas Fryer, Op. cit., p. 60.

In further analysis of the developmental stage of the interest inventory, Fryer[1] also temporarily dissociates the two components of his descriptive definition and specifies each as a separate type of inventory. The object category consisting of a list of stimuli he calls a structural inventory, while he labels as an activity inventory that type requiring human reactions to activities. However, in actual practice, the two are often combined in the one inventory.

Super[2] stresses as the essential feature of his concept of an interest inventory the scoring by the use of an experimentally determined weighting technique for each answer which, in turn, provides a pattern of interests rather than a detached subjective estimate. Fryer,[3] in his book with a much earlier copyright date, also recognized scoring as a vital part of the interest inventory method of measurement, but foresaw in the years to come little solution to the problem of developing a means of scoring general interests, predicting rather that the trend would be in terms of comparing an individual's interests with those of people in a particular occupation, profession or other specified group.

Early Standardized Interest Inventories

In 1913, Kelley[4] had applied weighted scoring to an in-

1/Douglas Fryer, Op. cit., p. 29.
2/Donald E. Super, Op. cit., p. 379.
3/Douglas Fryer, Op. cit., p. 60.
4/Truman L. Kelley, Op. cit., pp. 71-72.

ventory of group interests and in 1918, Miner[1] had concluded that the method he used in his analysis of vocational interests with 8500 high school students of Pittsburgh yielded valid results. However, neither of these had a scoring technique that could be verified objectively.

The pioneer standardized inventory in the field of interest evaluation was the Carnegie Interest Inventory[2] first published in 1921. This was the outgrowth of a graduate seminar conducted by Clarence Yoakum at Carnegie Institute of Technology during the college year of 1919-1920 where several students, independently working on different phases of interest research, finally pooled their findings and crystallized them into this initial standardized inventory. Supplementary researches based on this original inventory were subsequently carried on, all of which had value and pointed toward continued refinement of the first instrument.

The most significant development in connection with the original Carnegie inventory occurred at Stanford University where Cowdery was carrying on a piece of research dealing with the Carnegie instrument. In Cowdery's class at the college on the west coast was a young student, E. K. Strong, Jr., who was destined to become one of the top researchers in the field of interest measurement. Strong[3] revised and extended Cowdery's

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1/J. B. Miner, Op. cit., p. 323.
2/Douglas Fryer, Op. cit., pp. 61-69.
3/Ibid., p. 81.

inventory in terms of both items and scoring, and the result of his early work, published in 1928, was the forerunner to the most widely known interest measure used today by adults.

During these years of early experimentation, many other valuable researches were being carried on, largely at the adult level. At the high school level, Garretson[1/] was the pioneer in standardized interest inventories. On the premise that the existing measures were not applicable in his field, he developed the Preference Questionnaire as a means of educational guidance at the ninth grade level. His instrument was intended to indicate whether a student's interests were in the direction of an academic, technical, or commercial course in the secondary school.

Currently Used Interest Inventories

From the early days of standardized interest inventories up to now, much research has been done and many instruments have been developed and offered to the public. Some were short-lived while others have held their own down through the years because they have proven their worth and have been revised in step with progressive ideas and new needs. With measures of interest it has been the survival of the fittest.

On the market at the present time are several interest inventories enjoying popularity in varying degrees. Buros'

1/Oliver Kellam Garretson, Loc. cit.

Third Mental Measurements Yearbook[1] may well be consulted for an authoritative listing, since "this yearbook attempts to list all commercially available tests - educational, psychological, and vocational - published as separates in English-speaking countries between October 1940 and December 1947."

In this most recent compilation by Buros, he has devoted a specific section to interest measurement. Even though he does co-title it "Vocations-Interests," it is yet a hopeful sign that interests as a field of measurement is coming into its rightful place.

The following interest inventories designated as possibilities for all or part of the secondary school years have found a place in the latest edition of Buros' books:

Brainard Occupational Preference Inventory
Cleeton Vocational Interest Inventory, Revised
Interest Questionnaire for High School Students 1942 Edition (Garretson-Symonds)
Inventory of Vocational Interests (Acorn National Aptitude Tests)
Kuder Preference Record, Forms BB, BM, BI
Motivation Indicator (Baldwin)
Occupational Interest Inventory (Lee-Thorpe)
Primary Business Interests Test (Cardall)
Thurstone Interest Schedule
Vocational Interest Blank for Men, Revised (Strong)
Vocational Interest Blank for Women, Revised (Strong)
Vocational Inventory (Gentry)

In some of the tests which Buros lists under "Character and Personality," some measure of interests may be one phase or sub-test of the instrument. Among those for the secondary

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1/Oscar K. Buros, Third Mental Measurements Yearbook, Rutgers University Press, New Brunswick, 1949.

school years found listed thus in the Third Mental Measurements Yearbook are:

Dunlap Academic Preference Blank
Guilford-Martin Inventory of Factors GAMIN, Abridged
Interest Analysis, 1942 Revision
Interest-Values Inventory (Maller-Glaser)
Study of Values (Allport-Vernon)

Only one of these, the Dunlap Academic Preference Blank, has any implications for this study.

From the Nineteen Forty Mental Measurements Yearbook[1/] must be brought forward Hildreth's Personality and Interest Inventory for further consideration.

A perusal of recent test catalogs from publishing companies serving the measurement field reveals two additional forms of the Kuder Preference Record, Forms AH and CH, published since the latest compilation by Buros.

The above listings represent only the commercially published interest inventories which are available to school people. No mention is made here of unpublished inventories resulting from the studies done by master's or doctor's degree candidates, or research projects intended for local use.

Prefacing the evaluation of each of these existing interest inventories will be a brief sketch of the instrument in outline form with data from the manual or from the measure itself. Such a summary will serve as a frame of reference for further discussion of each of the inventories in current use.

1/Oscar K. Buros, editor, Nineteen Forty Mental Measurements Yearbook, The Mental Measurements Yearbook, Highland Park, 1941

Brainard Occupational Preference Inventory, Paul P. Brainard and Frances G. Stewart, 1945, Psychological Corporation.

Grade Level - High school, college, adult.

Forms - One, applicable to both men and women.

Purpose - To bring to the fore the salient facts about a person with respect to his occupational interests so that he and his advisers can more intelligently and objectively discuss his occupational and educational plans.

Categories - Seven, called "fields of vocational enterprise."

Commercial
Personal Service
Agriculture
Mechanical
Professional
Esthetic
Scientific

Directions -

Circle -2 if you dislike very much the thing mentioned.
Circle -1 if you dislike it somewhat.
Circle 0 if you are neutral or know too little to have feeling.
Circle 1 if you like it somewhat.
Circle 2 if you like it very much.

Form of Item -

How do you like to -

1. Get grease on your clothes?	-2	-1	0	1	2
2. Use a hammer, saw, chisel..?	-2	-1	0	1	2

Number of Items - 140

Scoring - Add the scores algebraically for each section; then add the four section scores for field score.

Validity - Validity coefficients of intercorrelated fields have a median of .29. No other data given.

Reliability - Coefficient of .81 established by Ghiselli formula.

Norms - Preliminary norms for 95 adult men, 75 adult

women, 335 high school boys, 378 high school girls, in terms of quintile scores; very high, high, average, low and very low.

Manuel[1/] deplores the briefness of the inventory for a breakdown into 28 sub-fields and 378 related occupations although he believes that used by qualified counselors it can be a useful instrument. He lauds the "use of descriptive phrases representing activities of various occupations."

Cleeton Vocational Interest Inventory, Glen U. Cleeton, 1943, McKnight & McKnight.

Grade Level - Grades 9-12, college, adults.

Forms - Two: one for men, one for women.

Purpose - To give the teacher an opportunity to compare the student's interests with experimentally determined patterns of interests which are typical of ten basic occupational groups as a basis for providing vocational guidance.

Categories -

PAA: physician and biological sciences
LSB: salesmen
EFC: engineer, physical science
TMD: social sciences
PBE: business administration
LJF: legal and literary
MEG: mechanical skilled
CPH: finance
ACI: actor, performance
FRJ: agricultural
OCA: office work
SBB: selling
NSC: nurse, natural science
SPD: social work
CIE: creative occupations
GSF: teaching grade school
HSG: high school teaching

1/Herschel T. Manuel, Test Reviewer, Third Mental Measurements Yearbook, Rutgers University, New Brunswick, 1949, test 634.

PSH: personal service
MHI: mechanical and household
WHJ: domestic interest

Directions -

Mark with + the things which you like, or think you would like. Also mark with + the statements to which you wish to answer Yes. Mark with 0 the things which you dislike or think you would dislike. Also mark with 0 the statements to which you wish to answer No. In the "A" group, draw a line through the one occupation in the group that you dislike most or like least. Then draw a circle around the one which you think you would like best. (Same for each of the three sections).

Form of Item (Men's Vocational Interests PAA)

Group A		Group B	
1. Astronomer	( )	21. Anatomy . . .	( )
2. Bacteriologist . .	( )	22. Botany . . .	( )

Number of Items - 700

Scoring - Count the number of plus marks for each section separately and place the score at the end of the section. Match these with the percentiles given in the tables in the manual.

Validity - Validity is hard to establish. To a certain extent it may be judged by the manner of selection of items included. These inventories include items from the Carnegie Institute form of 1919-24. The basis used in selecting items has been the extent to which people in different occupations report interest in specific items. New items were selected by determining the extent to which new items agreed with the basic items of known vocational significance.

Reliability - Odd versus even: typical coefficients from .822 to .910.

Norms - Percentile: 12,415 cases in all for men's form; 11,184 cases in all for women's form; include grades 8-12, college freshmen, upper-class college students, adults from representative high schools, colleges and other institutions in many different parts of the country.

Criticisms -

The methods of item selection and placement are attacked by both Greene[1] and Oakley[2]. Traxler[3] also denounces the halo effect of grouping in Cleeton's inventory as well as the lack of validity evidence. However, the simplified scoring appeals to him and he "would be inclined to use it in situations calling for quick easily scored measures of vocational interests." The scoring is likewise deemed an outstanding advantage of this inventory by Congdon[4].

Remmers and Gage[5] state that the procedure by which the grouping of occupations was determined is not explicitly stated by the authors but agrees well with occupational classifications derived by the factor analysis of Thurstone and Strong.

Interest Questionnaire for High School Students, O. K. Garretson and P. M. Symonds, 1942, Teachers College.

Grade Level - High school

Forms - One

1/Edward B. Greene, Test Reviewer, Third Mental Measurements Yearbook, Rutgers University, New Brunswick, 1949, test 635.

2/C. A. Oakley, Test Reviewer, Third Mental Measurements Yearbook, Rutgers University, New Brunswick, 1949, test 635.

3/Arthur E. Traxler, Test Reviewer, Third Mental Measurements Yearbook, Rutgers University, New Brunswick, 1949, test 635.

4/Nora A. Congdon, "A Study of Cleeton's Vocational Interest Inventory," Occupations 18, February, 1940, pp. 347-352.

5/H. H. Remmers and N. L. Gage, Educational Measurement and Evaluation, Harper and Brothers, New York, 1943, pp. 412-413.

Purpose - To supply a valid and reliable measure of the inclination of pupils entering high school toward the academic, commercial, and technical curricula, through a sampling of their preferences over a wide range of items.

Categories -

Occupations
Activities
School Subjects
Job Activities
School Paper
Football Team
Student Activities
Prominent Men
Things to Own
Magazines

Directions - If you think you would like the kind of work involved in the occupation, make a heavy black mark in the answer space after the L; if you would not care one way or the other, or do not know, mark the space after I, indifferent; if you think you would dislike the type of work involved, mark the space after D, dislike. (Comparable directions for other parts of the test).

Form of Item - Actor L I D

Number of Items - Approximately 235

Scoring - Algebraic sum of items scored for that particular key; multiple scoring for academic, commercial, technical keys.

Validity - The validity of the questionnaire was determined by the computation of the biserial r between the scores in one curriculum and the scores in the other curricula: academic, .560; commercial, .727; technical, .868. The correlations indicate that by means of the questionnaire one can predict with greater exactness the curriculum which a boy will choose than it is possible to predict his success in the curriculum of his choice by means of an intelligence test.

Reliability - Odd-even reliabilities on 25 questionnaires from each curriculum, corrected by Spearman-Brown formula: .861 for Academic; .925 for Commercial; and .953 for Technical.

Norms - Of value chiefly for comparison of preference scores of pupils in one school with the preference scores of pupils enrolled in academic, commercial, and technical curricula in other systems. The adviser should remember that the degree of preference will have but slight relationship to the degree of success in the curriculum for which preference is indicated, but will indicate interests and environmental background. There are decile norms for the three curricula for 800 grade 9 boys in three school systems: New York, New Jersey, and Georgia.

Criticisms -

Only one review, that by Croft,[1/] is available in the literature. He thinks that the Interest Questionnaire should prove valuable as a counseling tool used with intelligence and aptitude tests.

Inventory of Vocational Interests: Acorn National Aptitude Tests, Andrew Kobal, J. Wayne Wrightstone and Karl R. Kunze, 1943, Acorn Publishing Company.

Grade Level - Secondary schools, colleges, industry.

Forms - One.

Purpose - To provide evidence of interests which have vocational significance.

Categories -

Mechanical
Academic
Artistic
Business and Economic
Farm-Agricultural

Directions - Take your time. Read one question at a time and look over all the possible activities before checking those you think would interest you most. Check THREE items to each question.

1/Lysle W. Croft, Test Reviewer, Third Mental Measurements Yearbook, Rutgers University, New Brunswick, 1949, test 637.

Form of Item - What would you like best to do with a Motor Boat?

____a. Use it for fishing
____b. Paint it
____c. Take its motor apart
____d. Sell it
____e. Put a sail on it
____f. Draw a picture of it
____g. Take a party for a pleasure trip
____h. Build a cabin on it
____i. Study about it
____j. Write a story about it

Number of Items - 25

Scoring - Count the checks for a and b; c and d; e and f; g and h; i and j.

Validity - Sufficiently high to warrant its application in individual diagnosis. To establish validity, the Inventory was tried out on a group of laborers, shiftless though mentally normal prison inmates, and educationally low graded individuals. This supplementary study of 60 cases was made in addition to those on whom the norms were based. Scores on 120 cases correlated with advancement on the job .65, with recent earning capacity, .38; combination of occupational success, .59.

Reliability - No information given.

Norms - Percentile norms based on 300 typical cases: five types - mechanical trade experience and training; no experience but wanting mechanical training; academic, artistic, business and agricultural background; no vocational experience but wanting such training; vocational background and training.

Criticisms -

Adequate validity data is not present according to both Bills[1/] and Bordin.[2/] The latter also criticizes the lack

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1/Marion A. Bills, Test Reviewer, Third Mental Measurements Yearbook, Rutgers University, New Brunswick, 1949, test 638.

2/Edward S. Bordin, Test Reviewer, Third Mental Measurements Yearbook, Rutgers University, New Brunswick, 1949, test 638.

of reliability evidence as well as data concerning the inter-correlations of the scales and the make-up of the normative population. Carter[1/] is in agreement with the above weaknesses but does feel that the instrument "seems to hold promise as a step toward fulfillment of an obvious need for measuring the interests of the masses below the professional level."

Kuder Preference Record: Form BB, G. Frederic Kuder, 1943-1948, Science Research Associates.

Grade Level - High School, college, adult

Forms - BB for hand-scoring; BM for machine-scoring

Purpose - To point out scores with which the student may not be familiar but which involve activities of the type for which he has expressed preference; to check on whether a person's choice is consistent with the type of thing he ordinarily prefers to do.

Categories -

Mechanical
Computational
Scientific
Persuasive
Artistic
Literary
Musical
Social Service
Clerical

Directions - (Special pin-prick directions for hand-scoring and IBM type answer sheet for machine-scoring; both require response to most-liked and least-liked activity in each cluster of three)

Form of Item -

P. Visit an art gallery
Q. Browse in a library
R. Visit a museum

1/Harold D. Carter, Test Reviewer, Third Mental Measurements Yearbook, Rutgers University, New Brunswick, 1949, test 638.

Number of Items - 168 situations with 3 choices in each.

Scoring - Weighted scoring is behind the simple count of significant circles pin-pricked.

Validity - Study of mean profiles for occupational groups indicate in general that the names assigned to the various scales are appropriate in terms of the type of occupation entered as well as in terms of the activities for which the scale is scored.

Reliability - Complete listing in manual; median of entire table is .91.

Norms - 1858 boys of grades 10-12; 2005 girls in same grades; the three classes weighted equally in computing norms; separate profiles for boys and girls. Norms also for 2667 adult men and 1429 adult women. College norms being developed.

Criticisms -

Traxler and McCall,[1] advocating the measurement of interests in broad areas, feel that the Kuder Preference Record is "the most promising new instrument in this general field." They feel that the validity is Kuder's chief unanswered question.

Berdie[2] also mentions the lack of sufficient validity evidence, yet he does refer to the data now being assembled from several studies which in time will remedy this situation.

Another attack on the validity is from Christensen[3] who

1/Arthur E. Traxler and William C. McCall, "Some Data on the Kuder Preference Record," Educational and Psychological Measurement 1, July, 1941, pp. 253-268.

2/Ralph F. Berdie, Test Reviewer, Third Mental Measurements Yearbook, Rutgers University, New Brunswick, 1949, test 640.

3/Thomas E. Christensen, "Some Observations with Respect to the Kuder Preference Record," Journal of Educational Research 40, October, 1946, pp. 96-107.

says that this instrument cannot "be considered a valid test of interests" because of its vocabulary which he feels includes words "beyond the range of many high school students."

Chambers[1] challenges the forced-choice technique.

Super[2] lauds Kuder's untiring research efforts, many of the results of which, now "published in a manual which stands out because of the breadth and detail of material covered," have made a big beginning in the establishment of acceptable validity for this instrument which "already is a valuable tool in the counselor's kit."

Two good features of the Kuder Preference Record, according to Remmers and Gage,[3] are the "ingenious presentation of the test items" and the self-scoring directions which "are clear and appeal to student interest." These same features are also praised by Super.[4]

Bolanovich[5] recommends it for use in counseling "especially in a situation where there is a variety of job openings,"

1/E. G. Chambers, Test Reviewer, Third Mental Measurements Yearbook, Rutgers University, New Brunswick, 1949, test 640.

2/Donald E. Super, Test Reviewer, Third Mental Measurements Yearbook, Rutgers University, New Brunswick, 1949, test 640.

3/H. H. Remmers and N. L. Gage, Op. cit., pp.415-416.

4/Donald E. Super, Loc. cit.

5/Daniel J. Bolanovich and Charles H. Goodman, "A Study of the Kuder Preference Records," Educational and Psychological Measurement 4, Winter, 1944, pp. 315-325

while its main use, as stated by Baggaley,[1] "is as a first approximation to an answer to the student seeking the field of concentration in which his interest is likely to be high."

In 1948, another form of the Kuder Preference Record: Vocational, Form C, was published, and in 1949 still another, Personal, Form A. They conform to the same format as the original form BB with the same scoring methods. Their chief features are listed as follows.

The Vocational, Form C is called the "Eleven Scale" because it has added one new area, "Outdoor," and then has included a "Verification" score to help identify those who have not followed directions or have answered carelessly."*

The Personal, Form A "measures preferences for five different kinds of personal and social activity; sociable, practical, theoretical, agreeable, and dominant . . . The five scores are important supplementary information useful in guiding students into educational and vocational activities they will find satisfying and enjoyable."*

No research studies on these two new forms have been published to date.

Motivation Indicator, G. Bernard Baldwin, 1947, Educational Test Bureau.

Grade Level - High school

1/Andrew R. Baggaley, "The Relation Between Scores Obtained by Harvard Freshmen on the Kuder Preference Record and Their Fields of Concentration," Journal of Educational Psychology 38, November, 1947, pp. 421-427.

* Description found in publisher's catalog.

Forms - One

Purpose - To help pupils survey likes and dislikes by making many choices. The things you like to do most show the trend of your interests. Knowing this about yourself helps your planning for life--in school and in work.

Categories -

Curricular - Biological Sciences
Physical Sciences
Social Sciences
Literary Arts
Graphic Arts
Industrial Arts
Agricultural Arts
Clerical Work (verbal and number)

Social - Altruistic
Promotional
Administrative
Distributive (Sales)
Creative (Planning)

Directions - Note that the Indicator is printed like a street map. At intersection No. 1 four letters, A, H, D, and B, are placed in the four blocks with printed suggestions of things to do. Choose the TWO "things to do" that you like best and mark your choices on the answer sheet. Blacken the spaces provided beside the two letters on the answer sheet that show your choices for intersection No. 1. Now follow the arrows two blocks to the right until you come to intersection No. 2. Here letters F, D, I, and G, show four more "things to do." Mark your choices as before on the answer sheet.

Form of Item - Unique "city block map type"

Number of Items - 136

Scoring - Count number of responses marked by student in each area.

Validity - Determined in each area by an empirical test of its ability to differentiate between criterion groups conservatively established from external evidences, and by the method of internal consistency of items. The significance of the difference between means on the interest test from high and low

interest groups for each area determined the validity from external evidences. Internal consistency was determined in the method of selecting and evaluating items.

Reliability - Test-retest method, six-day interval with 75 sophomores in high school at Edmonds, Washington. Median reliability on curriculum section, .94; on social section, .84.

Norms - Scores from 1118 students in twenty high schools of the state of Washington, administered in 1945-46. Representative sampling was secured by proportional inclusion of agricultural, industrial, and cultural populations. Norms in terms of percentile units equated on the standard scale.

Criticisms -

Although the format of the instrument is pronounced ingenious by Frederiksen,[1] he ponders the possibility of confusion on the part of the student who uses it. He is somewhat skeptical about the inter-correlations which formed the basis of item selection, deploring the lack of complete statistical evidence.

Traxler[2] is in favor of the technique used in this instrument whereby each activity is compared "with a variety of other activities and thus allows the ranking of the activity among diverse experiences," just so long as comparable activities are paired.

Occupational Interest Inventory, Edwin A. Lee and Louis P. Thorpe, 1944-1946, California Test Bureau.

1/Norman Frederiksen, Test Reviewer, Third Mental Measurements Yearbook, Rutgers University, New Brunswick, 1949, test 641.

2/Arthur E. Traxler, Test Reviewer, Third Mental Measurements Yearbook, Rutgers University, New Brunswick, 1949, test 641.

Grade Level - Intermediate: Junior high to adult.
Advanced: Senior high, college, adult.

Forms - Two: intermediate and advanced.

Purpose - To aid in discovering the basic occupational interests possessed by an individual in order that he may become or remain an interested, well-adjusted, and effective person as well as a profitable employee.

Directions - You will find brief descriptions of kinds of work or things people do. You are to select the one of each pair that you would prefer if you had to choose one or the other. Do not consider how much you would earn, how much training would be necessary, or what people think of the activity. Assume that you must select one activity or the other even though in some cases you may not especially like either one or you may like both. Put a circle around the letter preceding the activity you choose.

Form of Item -

A. Raise chickens, ducks, or turkeys and sell them.
B. Arrange a display of watches, rings and other jewelry in a store window.

Number of Items - 120 in Part I, 30 in Part II.

Scoring - Count all the A's, B's, C's, D's, E's, F's circled; record and change to percentiles.

Validity - No purely objective criteria for establishing the validity of an occupational interests inventory. However, certain factors may influence the validity: the selection of items from Dictionary of Occupational Titles; the design or description of the items seeking to avoid reactions; the balance of items; the presentation of items by paired-choice method.

Reliability - Test-retest, four-week interval, 180 ninth graders, correlations from .84 to .93.

Norms - Percentile, more than 1000 ninth graders, California secondary schools.

Criticisms -

Missing information concerning the normative popu-

lation is an outstanding fault expressed by both Bordin[1] and Dulsky.[2] Bordin also criticizes the lack of empirical validity data. He is, however, complimentary in his reference to the clear description of what each scale measures and the use of illustrative cases for classification purposes.

Before the Occupational Interest Inventory is completely accepted professionally, Lindgren[3] suggests further studies to validate "its scales on the basis of responses made by persons employed in various occupations."

Primary Business Interests Test, Alfred J. Cardall, 1942, Science Research Associates.

Grade Level - Grades 9-16 and adults.

Forms - One.

Purpose - To measure an individual's preferences for the specific job activities which characterize beginning business jobs.

Categories -

Accounting
Collections and Adjustments
Sales-Office
Sales-Store
Stenographic-Filing

Directions - The first three columns are headed L I D so that you may record your response as like, indifferent or dislike. If you think that you would like

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1/Edward S. Bordin, Test Reviewer, Third Mental Measurements Yearbook, Rutgers University, New Brunswick, 1949, test 643.

2/Stanley Dulsky, Test Reviewer, Third Mental Measurements Yearbook, Rutgers University, New Brunswick, 1949, test 643.

3/Henry C. Lindgren, "A Study of Certain Aspects of the Lee-Thorpe Occupational Interest Inventory," Journal of Educational Psychology 38, October, 1947, pp. 353-362.

to perform the job-activity indicated as a part of your first business job, record your response under L; if you feel uncertain or indifferent, under I; if you feel that you would dislike this activity, under D. Omit no items. When you have completed this, go over the items again carefully and indicate in the X column the five which you would most like to do.

Form of Item - Wrap up bundles and packages.

Number of Items - 75.

Scoring - Weighted, indicated beside holes of each of five stencils provided (if hand-scoring is used).

Validity - The five patterns on which the test is scored represent functional occupational classifications within the area of beginning business jobs. The relative independence of these patterns may be estimated from the . . . table of intercorrelations.

Reliability - Split-half, corrected by Spearman-Brown prophecy formula from .73 to .92.

Norms - Percentile on 323 high school commercial seniors and 304 business college freshmen.

Criticisms -

The publication of reliability coefficients on such small numbers of items is decried by all three reviewers, Bennett,[1] Cleeton,[2] and Ferguson,[3] while the two latter go on record as questioning the correct use of the critical ratio technique in this particular situation. Still again, Bennett

1/George K. Bennett, Test Reviewer, Third Mental Measurements Yearbook, Rutgers University, New Brunswick, 1949, test 645.

2/Glen U. Cleeton, Test Reviewer, Third Mental Measurements Yearbook, Rutgers University, New Brunswick, 1949, test 645.

3/George Ferguson, Test Reviewer, Third Mental Measurements Yearbook, Rutgers University, New Brunswick, 1949, test 645.

considers the author negligent in not reporting norms separately by sex.

Thurstone Interest Schedule, L. L. Thurstone, 1947, Psychological Corporation.

Grade Level - Secondary school, college, adults.

Forms - One.

Purpose - To be used as a counseling instrument in situations where the client-counselor relationship is such that straightforward and honest expression of choices cannot be expected. It is not a test and its purpose is not disguised.

Categories -

Physical Science
Biological Science
Computational
Business
Executive
Persuasive
Linguistic
Humanitarian
Artistic
Musical

Directions - You are asked to express your preferences for different occupations. The occupations are given in pairs and you are asked to check them to indicate your preferences. In each comparison, assume that there is no difference in income or prestige. For each pair of occupations mark as follows: Draw a ring around 1 if you prefer the first of a pair of occupations. Draw a ring around 2 if you prefer the second of a pair of occupations. Draw rings around both numbers if you like both occupations. Cross out both occupations if you dislike both of them.

Form of Item - 1 Chemist

Ship captain 2

Number of Items - 100

Scoring - Count the number of marks in each column and its

corresponding row. The score is then recorded for each of the ten fields. The scores are then drawn in the profile on the last page of the folder.

Validity - Item validity computed by correlating each pair with the two scores to which the item contributed, hence 200 item validities were determined. Validities investigated to insure that the items were properly allocated in the ten fields.

Reliability - Split-half method: Pearson correlation coefficients computed for corresponding rows and columns, all at or above .90.

Norms - Norms not necessary since interest profile is self-interpreting and for individual use only.

Critisisms -

Although no review is available on the Thurstone Interest Schedule which in 1947 replaced the older Vocational Interest Schedule, Super,[1/] in referring to the old instrument, mentions its value to the field of interest measurement because it introduces the factorial approach.

Vocational Interest Blank for Men (Revised), Edward K. Strong, Jr., 1938, Stanford University Press.

Grade Level - Ages 17 and over.

Forms - One.

Purpose - To measure the extent to which one's interests agree or disagree with those of successful men in a given occupation; to provide for guidance into broad fields of occupational endeavor.

Categories - 35 revised occupational scales plus 6 group scales.

Artist	Printer	Accountant
Psychologist	Math-science tchr,	Office worker

1/Donald E. Super, Test Reviewer, Third Mental Measurements Yearbook, Rutgers University, New Brunswick, 1949, test 653.

Architect	Policeman	Purchas. agt.
Physician	Forest service	Banker
Dentist	YMCA phys. dir.	Sales manager
Mathematician	Personnel mgr.	Real est. sales
Engineer	YMCA secretary	Life ins. sales
Chemist	Soc. sci. tchr.	Advertising man
Production manager	City sch. supt.	Lawyer
Aviator	Minister	Author-journal.
Farmer	Musician	President
Carpenter	Cert. pub. acc't	

6 group scales

Artist, psychologist, architect, physician, dentist.
Engineer and chemist, and indirectly mathematician and physicist.
YMCA physical director or secretary, social science high school teacher, city school superintendent and minister.
Accountant, office worker, purchasing agent, banker.
Sales manager, realtor, life insurance salesman.
Advertising man, lawyer, author-journalist.

Directions - Disregard considerations of salary, social standing, future advancement, etc. Consider only whether or not you would like to do what is involved in the occupation . . . Draw a circle around L if you like that kind of work; draw a circle around I if you are indifferent to that kind of work; draw a circle around D if you dislike that kind of work.

Form of Item - 1. Actor (not movie) L I D
2. Advertiser L I D
3. Architect L I D

Number of Items - 400

Scoring - In terms of Kelley's revised formula for weighting raw scores in terms of means and standard scores. (Complicated and costly).

Validity - A first measure of validity has reference to the extent to which men successfully engaged in an occupation are differentiated from men successfully engaged in other occupations. (Evidence of high validity in this respect). A second measure of validity has reference to the degree men successfully engaged in an occupation are differentiated from men in the same occupation who are not so successful.

Reliability - Odd-even; average coefficient of revised scales for men is .877 based on records of 285 Stanford seniors. Test-retest, one week interval; average reliability of 8 unrevised scales is .869 (by Burnham) compared to .856 on same scales using odd-even method. Average correlation for permanence over a five-year period on 21 occupational scales is .75 on 285 cases, corrected by attenuation to .84, an exceedingly high reliability by test-retest with a five-year interval.

Norms - Letter ratings (for convenience in interpretation) and standard score norms for each of the occupations.

Criticisms -

Although Strong's Vocational Interest Blank for Men, like all other measures of interest, has been criticized for certain things, it has received more commendation than any of the other existing instruments and has had more attention paid to it as evidenced by the outstanding number of researches which have been, and still are being, done in connection with it.

Carter[1/] refers to it as the "most outstanding of the several inventories of its type." Darley[2/] speaks of it as an "invaluable measuring instrument." Morton[3/] lauds its "positive values of thorough organization of material, extensive study

1/Harold D. Carter, Test Reviewer, Nineteen Forty Mental Measurements Yearbook, The Mental Measurements Yearbook, Highland Park, 1941, test 1680.

2/John G. Darley, Test Reviewer, Nineteen Forty Mental Measurements Yearbook, The Mental Measurements Yearbook, Highland Park, 1941, test 1680.

3/N. W. Morton, Test Reviewer, Nineteen Forty Mental Measurements Yearbook, The Mental Measurements Yearbook, Highland Park, 1941, test 1680.

of validity and knowledge about the relation to other psychological measurements."

Brewer[1] commends "Strong's gigantic researches over the years which have proved its value with adults when interpreted with some latitude;" however, he is a bit skeptical about its use with young people "whose life experience must necessarily be limited."

However, the results of the study conducted in grades 7-12 by Carter, Pyles and Bretnall[2] indicate successful use as a group with the Blank in high school. Carter and Jones[3] corroborate this in another study in Grade 10.

Super[4] and Traxler[5] both question the use of the Blank below the upper secondary level from another angle, that of vocabulary. To offset their criticisms, Super praises the pattern analysis interpretation of the instrument where related occupations are grouped into families, and Traxler,

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1/John M. Brewer, "Classification of Items in Interest Inventories," Occupations 21, February, 1943, pp. 448-451.

2/H. D. Carter, M. K. Pyles, and E. P. Bretnall, "A Comparative Study of Factors in Vocational Interest Scores of High School Boys," Journal of Educational Psychology, February, 1935, pp. 81-98.

3/H. D. Carter and M. C. Jones, "Vocational Attitude Patterns in High School Students," Journal of Educational Psychology 29, May, 1938, pp. 321-334.

4/Donald E. Super, Appraising Vocational Fitness, Harper & Bros. New York, 1949, p. 409.

5/Arthur E. Traxler, "The Use of Test Results in Secondary Schools," Educational Records Bulletin No. 25, Educational Records Bureau, New York, October, 1938, pp. 90-91.

speaking for the Educational Records Bureau, champions the use of the Strong blank.

Several critics, including Super,[1] Traxler,[2] Kopas[3] and Lauro,[4] lament the complicated and costly scoring. However, Carter[5] reports that "unpublished studies by the writer indicate that about 80 per cent of those who take the test are benefited by it and feel that they get their money's worth."

Vocational Interest Blank for Women (Revised), Edward K. Strong, Jr., 1946, Stanford University Press.

Grade Level - Age 17 and up.

Forms - One

Purpose - To aid in determining which way a person should go - what occupation she will enjoy.

Categories -

Artist	Physician
Author	Psychologist
Buyer	Sales: ready-to-wear
Dentist	Social worker
Dietitian	Stenographer-secretary
Housewife	Teacher - elementary grades
Lab. technician	Teacher - high school English
Lawyer	Teacher - home economics
Librarian	Teacher - social sciences

1/Donald E. Super, Op. cit., p. 412.

2/Arthur E. Traxler, Loc. cit.

3/Joseph S. Kopas, "The Point-Tally; a Modified Method of Scoring the Strong Vocational Interest Blank," Journal of Applied Psychology 22, August, 1938, pp. 426-436.

4/Louis Lauro, "A Note on Machine Scoring the Kuder Preference Record," Journal of Applied Psychology 32, December, 1948, pp. 629-630.

5/Harold D. Carter, Loc. cit.

Life insurance sales
Nurse
Occupational therapist
Office
Teacher - math. sciences
Teacher - physical education
YWCA secretary

Directions - (Same as for Men's Blank)

Form of Item (Same format as on Men's Blank)

Number of Items - 400

Scoring - Same as for Men's Blank

Validity - Differentiates between women in different occupations; differentiates between women successfully employed in an occupation and women otherwise engaged. Further studies needed before stating to what extent women scoring high on this test enter the occupation and those obtaining low scores enter another occupation.

Reliability - Reliability for only four of revised scales has been done, and they approximate that of corresponding original scales, ranging from .74 to .94 by odd-even method.

Norms - Given for each of the occupational scales in percentiles.

Criticisms -

Strang[1/] poses four difficulties to consider in using Blank:

1) Women enter and continue in certain occupations for reasons other than interest in the occupation.

2) The scale is standardized on adult women.

3) Only a limited number of occupations are scaled.

4) The occupational groups on which the scales are validated are not homogeneous.

1/Ruth Strang, Test Reviewer, Nineteen Forty Mental Measurements Yearbook, The Mental Measurements Yearbook, Highland Park, 1941, test 1681.

She then suggests three possible courses of action:

1) Experiment with the more adequately developed blank for men.

2) Use the blank only in counseling women who do not know what kind of work they want to do.

3) Use the subject's responses on individual questions, rather than scale scores.

Dickson[1/] found from experience that the patterns of likes and dislikes characterizing specific occupational groups are not as distinctive for women as for men when this test is used, and warns counselors to be mindful of this factor. She does, however, recommend the Vocational Interest Blank for Women, provided it is "used with care and clinical judgment, and preferably in conjunction with another test of interest."

Vocational Inventory, Curtis G. Gentry, 1940, Educational Test Bureau.

Grade Level - Grade 8 to adult.

Forms - One.

Purpose - To give a swift and valid general vocational picture of students and young adults.

Categories -

Social Service
Literary Work
Business
Law and Government
Art
Mechanical Designing
Mechanical Construction
Science

1/ Gwendolen S. Dickson, Test Reviewer, Third Mental Measurements Yearbook, Rutgers University, New Brunswick, 1949, test 649.

Directions - (Different for each section)

Form of Item - Many different types: many-choice items, association of vocational words with occupations, personal rating on academic skills, general preference questions, multiple-choice items on occupations.

Number of Items - 434

Scoring - Special scoring sheet: eleven keys combined in one.

Validity - Partly based, of course, upon source and character of material included. Two considerations were employed: the generally known requirements for success in each of the occupational areas as determined by analysis of the qualities manifested by persons who succeeded in these areas; the assumption that vocational aptitudes distribute themselves much as other observable traits, and that these are revealed through interests and knowledges which are not possessed to the same degree by all persons.

Reliability - Percentage results of change over period of years - no coefficients.

Norms - None given as such.

Criticisms -

Strong criticism of the author's lack of attention to the customary statistical standards of test construction in terms of validity and reliability comes from both Carter[1/] and Super.[2/] Further adverse comment concerning validity claims comes from Bordin[3/] who also calls attention to the "glaring

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1/Harold D. Carter, Test Reviewer, Third Mental Measurements Yearbook, Rutgers University, New Brunswick, 1949, test 655.

2/Donald E. Super, Test Reviewer, Third Mental Measurements Yearbook, Rutgers University, New Brunswick, 1949, test 655.

3/Edward S. Bordin, op. cit., test 655.

omission of normative tables," Froelich[1] deems the instrument "now not a valid diagnostic tool for guidance."

Personality and Interest Inventory, High School Form, Gertrude Hildreth, 1936, Teachers College.

Grade Level - High School.

Forms - One for high school, one for elementary grades.

Purpose - Successful adjustment of high school pupils requires that teachers and advisers have adequate knowledge of the individual pupil's activities and interests in his home and school life. Pertinent information concerning the child's spare-time activity preferences, interest in sports and games, reading tastes and habits, school subject preferences, together with his own evaluation of his personality characteristics, is essential to an understanding of the child and his problems.

Categories -

Things I like to do best in school.
Books I like.
Magazines I like.
Boys and girls I like.
What I like to do on Saturday or during vacation.
Games I like.
When I grow up I plan to be --
People at home I like.
Things that tell about me.
If I could have my wish --

Directions - (Different for various sections).

Form of Item - (Check lists plus personal answers).

Number of Items - 121 check list items among various fields plus spaces for other fill-ins and personal recordings.

Scoring - None.

1/Clifford Froelich, "A Study of the Gentry Vocational Inventory," Educational and Psychological Measurement 2, January, 1942, pp. 75-82.

Validity - No data given in test accessories.

Reliability - No statistical reliability given.

Norms - None.

Criticisms -

From Corey[1/] one reads a series of minus ratings -- no data on reliability or validity, no norms of any sort, and no description of the source of the items.

Dunlap Academic Preference Blank, Jack W. Dunlap, 1937, World Book Company

Grade Level - Grades 6 to 9.

Forms - One.

Purpose - To provide an objective quantitative measure of a pupil's interest in various academic fields in terms of his expressed preferences for engaging in or occupying himself with specific factors in these fields.

Categories -

Paragraph Meaning.
Word Meaning.
History.
Language Usage.
Geography.
Literature.
Arithmetic.
General Achievement.

Directions - Mark L or I or D or U.

Form of Item - (Words or phrases).

L I D U Like, Indifferent, Dislike, Unknown.

Number of Items - 90 in each form.

1/Stephen M. Corey, Test Reviewer, Nineteen Forty Mental Measurements Yearbook, Rutgers University, New Brunswick, 1941, test .

Scoring - Count number of each letter marked.

Validity - Correlated with New Stanford and Metropolitan.

Reliability - Inter-form reliabilities reported: .70 to .83.

Norms - Percentile.

Criticisms -

Cronbach,[1] Kvaraceus,[2] and Thomson[3] all frown on the extravagant claims made for this 90-item, 10-minute questionnaire which purports to give "valid estimates of the relative school aptitude of students." On the favorable side of the ledger, Cronbach and Thomson do mention the extreme diligence and technical skill demonstrated in the construction of the instrument, and Kvaraceus comments on the "excellent description of the item analysis through the years."

Resume of Currently Used Interest Inventories

Purposes. If the purpose of each of the interest measures under consideration is detached from the rest of the inventory and carefully viewed, it will be found that the word "occupational" or "vocational" occurs in the large majority of them. In one, Brainard's, the word "educational" is included also. Two others, Garretson-Symonds' and Dunlap's, hold

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1/Lee J. Cronbach, Test Reviewer, Third Mental Measurements Yearbook, Rutgers University, New Brunswick, 1949, test 35.

2/W. C. Kvaraceus, Test Reviewer, Third Mental Measurements Yearbook, Rutgers University, New Brunswick, 1949, test 35.

3/Edith I. M. Thomson, Test Reviewer, Third Mental Measurements Yearbook, Rutgers University, New Brunswick, 1949, test 35.

strictly to the educational guidance angle only, while Hildreth alone directly brings in the avocational element of guidance. Kuder implies all three phases but does not state them in exact wording.

From this simple overview of interest measures, there is no doubt but what the vocational aspect of guidance is the primary consideration in the inventories now being used to the almost utter exclusion of the other two phases of guidance deemed very necessary by experts - educational and avocational guidance.

Selection of Interest Categories. All the currently used interest inventories under discussion furnish varying amounts of information in their manuals regarding the selection of the areas of interest the instruments seek to measure. Garretson-Symonds, Kuder, and Strong selected their categories empirically, the two latter with much experimentation and revision. Baldwin, Lee-Thorpe, Gentry and Kobal-Wrightstone-Kunze chose theirs on a logical basis. Cardall analyzed more than a hundred work diaries of on-their-first-job employees, while Brainard and Thurstone depended on the previous careful research of others to justify their groupings.

Item Types. Upon a close examination of the item types used in interest inventories, one finds Gentry, Cleeton, Garretson-Symonds, and Kobal-Wrightstone-Kunze using the questionnaire check list, consisting of either single words or simply phrased activities which serve as stimuli for ac-

ceptance-rejection marking, or blanks to fill in. Thurstone and Lee-Thorpe use the paired-choice form, Kuder the triad choice, while Baldwin employs a multiple-matched comparison of items. The three last are also examples of the forced-choice technique since they require a choice to be made regardless of the individual's true feelings. A rating scale type of item arrangement in terms of either Like, Dislike, or Indifferent or a numerical scale of weights above or below zero is used by Brainard, Cardall, Dunlap, and Strong.

Scoring. The scoring of the commonly used interest inventories is done in a variety of ways. Cleeton, Kobal-Wrightstone-Kunze, Baldwin, Lee-Thorpe, and Thurstone use a simple additive process usually in terms of area breakdowns, while Brainard and Garretson-Symonds use algebraic adding. Cardall, Gentry, and Strong employ a very complicated weighted scoring technique, and Kuder used weighted scoring also but its complexity is not evident to the user, since it has been resolved into a process of mere addition for actual manipulation of the raw scores.

Interpretation of Scores. When one is old enough to take an interest inventory, especially of a vocational nature, he is always concerned about the outcomes of such a measure. Therefore, one of the important elements for an interest inventory author to consider is the manner of reporting the results.

The most common method is the use of a profile chart or

psychograph as used by Brainard, Cleeton, Kuder, Lee-Thorpe, and Thurstone. In interpreting a profile chart used with an interest inventory where there are competing activities, one must remember that there is constant interplay among the factors being profiled; the "highness" of some areas and the "lowness" of others are interwoven concomitants of such a situation. This is unavoidably true when the forced-choice technique is employed since each activity is chosen at the expense of some other activity. According to Cronbach,[1] this technique is "being increasingly used in tests of knowledge, attitudes, interests, and personality" because it "is the only form in common use for pencil-and-paper tests which appears to be free from response sets." It was used quite extensively by the Personnel Research Section of the Adjutant General's Office[2] in rating scales during World War II, but its application in that type of situation is not transferable to interest inventories where the multiple-choice item type is used.

Another method of reporting results is used by Strong -- an occupational rating sheet in terms of letter grades based on percentile ranks resulting from his very complicated

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1/Lee J. Cronbach, Essentials of Psychological Testing, Harper and Brothers, New York, 1949, p. 51.

2/Staff of Personnel Research Section of the Adjutant General's Office, "The Forced-Choice Technique and Rating Scales," American Psychologist 1, July , 1946, p. 267.

scoring system. Gentry uses what he calls "an individual analysis report." Baldwin, Cardall, Garretson-Symonds, and Kobal-Wrightstone-Kunze use no separate report form but interpret directly from the original answer sheets.

Interest scores are highly important to the individual, so it is very necessary that they be prepared for reporting in the most meaningful way possible.

Validity. Validity is the biggest problem involved in the construction of an interest inventory. Since an individual's interests have not been proven completely stable, longitudinal studies of validity over a period of years are necessary before the instrument can be used unqualifiedly for predictive purposes. This procedure has definite limitations, of course, and Strong is the only one who has furnished statistical validity evidence based on long-term research on cross-sectional populations while Cleeton, and Kobal-Wrightstone-Kunze make mention of empirical validity resident in their instruments. However, few of the commonly used interest inventories have been in existence long enough to provide evidence of acceptable statistical validity.

Reliability. All but one of the inventories reviewed report reliabilities and use one or more of the accepted statistical techniques. Of these, Cleeton, Cardall, Garretson-Symonds, and Thurstone used some phase of the split-half technique. Strong used the odd-even method on some scales and computed test-retest coefficients on the others. This latter

procedure was used likewise by Kuder on part of his data, while on the rest he used the Kuder-Richardson formulas. Brainard reports a use of the Ghiselli formula because his test did not allow of division into two equivalent parts. Gentry lists the percentage of change over a period of time, while one evades the issue of reliability entirely. The reliabilities reported range from .64 to .96, on groups differing in variability according to the size and make-up of the sample used, and the type of coefficient computed.

Norms. Practically all the norms used with interest inventories are percentile norms. Four, Brainard, Cleeton, Kuder, and Lee-Thorpe, have separate sex norms. Brainard, Cleeton, Cardall, Garretson-Symonds, Kobal-Wrightstone-Kunze, Kuder, Lee-Thorpe, Gentry, and Strong report the normative population in numbers and levels, but Baldwin is the only one who states any information relative to the representativeness of his sample.

Recapitulation.

In appraising the aforementioned inventories, there is definite evidence to substantiate the placement of the Kuder Preference Record at the top of the list of instruments currently used to assess the interests of the complete age range of adolescents, with the Strong Vocational Interest Blank claiming a fair share of attention in the junior and senior years of the high school and/or with the more mature students to whom an occupational index is of prime importance.

No measure yet designed meets all the standards of an ideal measure of interest. The writer has searched in vain for an instrument that takes into account all three phases of guidance -- educational, vocational, and avocational -- while also meeting the criteria of acceptable test construction in terms of item writing, validity, reliability, and norms, as well as a meaningful and safe method of interpretation. Thus, this review of research, besides providing a background of information relevant to the past and present phases of evaluation of interests, points up the fact that the field of interest measurement still has room for further experimentation and new instruments.

CHAPTER III

DESIGN OF THE ACTIVITY PREFERENCE INVENTORY

Motivation for Developing a New Instrument

To make an intensive study of interests, far more than the results of observation or casual expressions are necessary. Research of this kind requires the use of some measuring device by means of which an objective evaluation may be secured. To achieve this, two courses of action are open. First, a research study using an already available and currently published inventory could be done. On the other hand, a new instrument planned in terms of the author's own point of view concerning his particular problem could be constructed. The latter alternative was chosen because of the failure to find among the currently used measures any single inventory which adequately seemed to assess a wide enough range of adolescent interests.

Construction of the Instrument

Objectives. The interest inventory proposed for this study sought to fill two needs not adequately incorporated in any single inventory used at the present time: 1) the need to locate those interests which have a direct bearing on the educational, vocational, and avocational life of the adolescent; and 2) the need to meet the adolescent on his own level without asking him to project himself in terms of his interests into adult areas of thought.

Rubrics (Categories). When one picks up any pencil-and-paper measuring instrument, his first attention is usually given to the content of the test - the items and their grouping. However, before the "look-see" stage arrives, the test author has spent many laborious hours both in planning and writing. As Vaughn[1] says, "Before actual construction of items begins, it should be accompanied by an equally comprehensive analysis of the content to be sampled." In an interest inventory this content is in the form of interest categories, or, as they have been called in this instrument, rubrics.

The interest inventory which forms the basis of this study has been developed within a framework of rubrics logically derived from a combination of sources. In the first place, the writer spent much time in her own high school situation observing the activities of the pupils, both in school and out. Secondly, the categories and groupings used by other interest inventory authors were comprehensively listed and carefully studied in the light of the objectives of the proposed inventory. Thirdly, the writer secured from her school population which is a typical suburban group a free listing of the interests and activity preferences of the 949 students who were present on a given day. They were asked to do the following:

1/K. W. Vaughn, contributing author, Educational Measurement, E. F. Lindquist, editor, American Council on Education, Washington, 1951, p. 164.

"On this paper make as long a list as possible of all the things you enjoy doing or would like to do if it were possible: at home, at school, evenings, Saturdays, Sundays, vacations, at all seasons of the year. Typical responses might be: Go to a school dance; Read a mystery story; Work on my stamp collection; Play tennis; Go by plane to New York."

The results of all the above leads were collated and from them emerged the first tentative list of rubrics set up in terms of the purposes of this particular inventory:

Adventurous Activities
Appreciational Activities
Collecting
Creative Activities
Directing People or Things
Fine Muscle Activity
Working or Playing with a Group
Imparting Information or Ideas
Large Muscle Activity
Mathematical Activities
Manipulative Activities
Making Things from Directions
Outdoor Activities
Doing Things for Other People or Animals
Persuasive Activities
Being with the Other Sex
Religious Activities
Solo or Group Performing - Audience Approval
Vicarious Experience Activities
Working under Someone Else

This list, rough as it was, provided a springboard for further consideration and refinement. Some of the first list were overlapping, some were non-essential, when carefully analyzed, and there was need for a more concise listing.

The second attempt resulted in the following listing:

Interest in Aesthetic Activities
Interest in Altruistic Activities
Interest in Detail Planning
Interest in Fine Muscle Activities
Interest in Group Activity
Interest in Imparting Information or Ideas

Interest in Large Muscle Activities
Interest in Leadership
Interest in Making Organized Collections of Things or Ideas
Interest in Manipulative Activities
Interest in Mathematical Activities
Interest in Novel or Unusual Activities
Interest in Performing for Audience Approval
Interest in Persuasive Activities
Interest in Research and Creative Activity

This list was submitted to a summer session seminar consisting of doctoral students majoring in measurement at Boston University. Discussion by this group and suggestions from them helped in further refinement and final selection of the rubrics which seemed to best represent the areas which must be included if the inventory was to fulfill its original purpose. Thus, through a series of logical analyses, the following fifteen rubrics were finally chosen for the framework of the experimental edition of what was now to be known as the ACTIVITY PREFERENCE INVENTORY:

1) Aesthetic: Appreciation of the beautiful as evidenced by interest in nature and the fine arts, including painting, drawing, architecture, sculpture, poetry, classical music and artistic dancing.

2) Altruistic: Interest in going out of one's way to do things that benefit others, especially in social service situations where one must establish rapport easily.

3) Audience Approval: Interest in appearing before the public as evidenced by participation in platform activities connected with music and/or the dramatic arts.

4) Competitive: Interest in competing with others in any situation where one's skill or talent is challenged.

5) Creative: Interest in giving expression to an original idea.

6) Detail: Interest in working with, or collecting, or organizing materials requiring persistent application over a period of time.

7) Directive: Interest in taking charge of things as evidenced by leadership activities and those involving responsibility.

8) Group: Interest in the companionship of others and in participating in group activities.

9) Home and Family: Interest in activities which are done at home, which imply harmonious relations with family members, and which indicate a desire on the part of the adolescent to include home life in his future life pattern of activities.

10) Manipulative: Interest in activities requiring motor coordination, especially manual skill, in operating or repairing machines, or equipment, or in making things from patterns, recipes, directions or scientific formulas.

11) Mathematical: Interest in computational activities requiring precision and accuracy.

12) Personal Improvement: Interest in improving one's self in appearance, skill, education, culture, character, or occupation.

13) Persuasive: Interest in influencing people to follow your suggestions by convincing arguments and direct pressured inducement.

14) Physical Activity: Interest in participating in activities of a non-competitive nature, involving particularly the large muscles used in recreational activities or unskilled labor routines.

15) Public Affairs: Interest in citizenship activities and public affairs as evidenced by reading, radio listening, audience participation, and/or personal contact with people and events of national and international significance.

These fifteen rubrics by no means covered all the possibilities for an interest inventory, but they did seem to include the major interest categories of adolescence and

permit a broad sampling of activities peculiar to the teen-age group.

At this stage, the rubrics chosen were only tentative. The final selection could be made only after a thorough analysis of the experimental data in terms of inter-correlations of the categories and an item analysis. By these means the rubrics retained or substituted will be those which are relatively independent variables within which substantial individual variation is found.

Type of Item. In the pre-planning stage, every type of item included in any of the currently used interest inventories was given due consideration. The forced-choice type of item was selected because it approximated a true-to-life situation where one is constantly faced with the problem of choosing between two or more activities which simultaneously compete for attention. The use of this type of item thus guarantees some degree of face validity in that it relates the inventory to the real life activities of the adolescent whose preferences it seeks to measure. This meets Adams'[1/] criterion of face validity - "that a test which is to be used in a practical situation should appear practical, pertinent and related to the purpose of the test - it should not only be valid but it should also appear valid."

1/Sidney Adams, "Does Face Validity Exist?" Educational and Psychological Measurement 10, Summer, 1950, pp. 320-328.

Even though the forced-choice form of item seems to have enough in its favor to take precedence over other item types, its limitations must always be borne in mind. One of these is that it is not always easy to achieve the balance necessary among the sub-item factors. As indicated by Fehrer and Strupp,[1] the scores obtained from using this method "should be most reliable when the items are matched for all factors that might influence choice except interests or personal values." Fowler,[2] who used the forced-choice technique to some extent in his study of the ability scores and preference scores of 46 high school junior boys, elaborates on these factors when he describes his competing activities as those which "take about the same amount of time, are done at the same time of day or season of year and involve about the same degree of effort and drudgery."

A possible disadvantage of the forced-choice technique is that there exists what might be called a "closed circuit" situation, i.e., each activity expressive of interest in one rubric is chosen at the expense of some other activity related to another interest field or rubric in the same item set-up. A person might have dominant interests in many areas being

1/E. Fehrer and H. Strupp, "Effect of Equating Interest Test Items for Prestige Value," Journal of Applied Psychology 33, June, 1949, pp. 222-230.

2/Hanford Fowler, Preference Ability Types of High School Junior Boys, Unpublished doctoral dissertation, Harvard University, 1945.

measured by an inventory. However, when he comes to consider the activities for any given situation, he is forced to choose only one even though he may be much interested in one or more of the other three competing activities. So, when his interest profile comes to be made, these lesser, even though perhaps strong interests do not show in the picture. Rather, they contribute to the low end of the scale, since if an individual is high in one rubric, he invariably must be low in some other. Thus, the forced-choice technique signifies that any individual's profile of interests is a picture of the interplay of "highness" and "lowness" of the several interest rubrics being scored instead of resulting in a series of wholly independent scores.

One possible way to circumvent this disadvantage may be the use of what is called in this inventory a Strength Mark. The purpose of this was to get some measure of the intensity of the like or dislike an individual had for an activity. This was accomplished by the use of a fifth answer space on the standard IBM answer sheet which the pupil filled in if he particularly liked or disliked the activity he had selected for his answer to the situation presented to him. Perhaps by so registering his intensity, if he desired, the "force" in the use of the forced-choice technique could be lessened and a more valid picture of the individual's true interests and aversions might result. At any rate, the investigation seemed worthy of an attempt.

Definitions Used in Describing the Content. Before attempting to describe the further construction of the ACTIVITY PREFERENCE INVENTORY, a listing of definitions seems necessary to clarify the step-by-step development of the content and to avoid any misinterpretation of the terminology used.

Rubric: any category or area of interest used in this instrument.

Exercise: a problem consisting of a situation and four competing activities.

Situation: a true-to-life question structured in terms of the knowledge, experiences, and immediate interests of adolescents in general which forms the stem of the exercise.

Activity: any one of the competing choices presented to an individual for his consideration in connection with a given situation.

Item: the interaction of any situation and any activity in this inventory.

Content of the Inventory. The ACTIVITY PREFERENCE INVENTORY consists of two presumably equivalent forms, A and B, set within a framework of fifteen rubrics, with 75 four-choice forced-choice exercises per form. The situations as well as the activities were selected as the result of the study of other existing interest inventories, the memory and experience of the authors, observation of and close contact with hundreds of adolescents over a long period of time, and the free response list previously mentioned.

Each situation in Form A has a counterpart or near-counterpart in Form B, and each activity is used with one or more situations other than its original in order to give the

activity an opportunity to compete with several other interest possibilities. Each form contains approximately nineteen activities for each of the fifteen rubrics, plus fifteen activities as yet unclassified, labeled "p"; these act both as fillers and distractors and may prove to be significant enough to be categorized after the tryout. A sample item is shown below:

X. If you were to choose one of the following to do next Saturday night, which would you most prefer? which least?

h. Go to a school dance
d. Play in a basketball game
c. Take part in a play
a. Go to a community concert

Assignment of Activities to Rubrics. The activities were assigned to the rubrics by the judgment of the authors substantiated by the judgment of a doctoral seminar of mature students with teaching experience. The placement at present is tentative, since after the rubric inter-correlations and item analysis are completed there will doubtless be shifts and drop-outs and additions. Until there is statistical analysis, the case rests on logical analysis.

Content in Terms of Guidance Implications. The final selection of situations and activities was based on their logical implications for guidance in the three areas which profoundly affect the adolescent age - educational, vocational, and avocational. The inclusion of all three of these phases is vital to adequate counseling of the teen-age group, for every adolescent's life is a combination of his school life

and his out-of-school life, and each new day brings him nearer to the point where he must make his own decisions.

High School is not the time to set him down in his vocational niche, but it is the time to let him look in on many niches that he might be interested in occupying provided he has the other necessary qualifications. The purpose of the ACTIVITY PREFERENCE INVENTORY, from the vocational point of view, is to present certain activities which are normally engaged in during adolescence which, if chosen by an individual, indicate definite leanings toward specific occupational groupings or fields of work, although not to a definite single occupation.

Educationally speaking, the guidance possibility lies in being able to relate the preferred activities of a student to the immediate or more remote choices he must make in terms of courses or college or other post-secondary training.

Last, but by no means least, this instrument is built upon the concept of the value of worthy use of leisure time, and seeks to assess or direct the interests of pupils along the lines of what the normal adolescent really enjoys doing.

Marking of Responses. A separate answer sheet, the standard IBM type (Appendix), is used, and the individual answer spaces are coded in terms of the interest areas represented:

a Aesthetic
b Altruistic
c Audience Approval

d Competitive
e Creative
f Detail
g Directive
h Group
i Home and Family
j Manipulative
k Mathematical
l Personal Improvement
m Persuasive
n Physical Activity
o Public Affairs
p (Fillers or Distractors)

Two rows of answer spaces are used for each item; the top row marked "M" will contain the response MOST PREFERRED among the four choices; the bottom row marked "L" will contain the response LEAST PREFERRED among the same four. The fifth answer space in every row is labeled "S" signifying Strength Mark, and as heretofore explained, denotes strength of Like or Dislike. If a student feels a very strong liking for the activity he has already marked as his most preferred choice, he fills in the S space in addition to his "M" mark. If he fells a very strong dislike for the activity he has already marked as his least preferred choice, he fills in the S space in addition to his "L" mark.

Scoring. In scoring the inventory, the number of responses in the "M" row for each rubric plus all strength marks for that rubric are to be counted. The same is to be done for the "L" row. The total score for each rubric will be the "M" score minus the "L" score plus 50 as a constant to eliminate dealing with negative numbers on the profile chart. For a composite score on each rubric the average of the totals of

Forms A and B will be used.

Pupil Profiles. The results of the inventory are to be reported on a preliminary profile chart (Appendix) for each person. This chart when completed will give a picture of one's dislikes and likes as measured by this particular inventory.

At the top of the profile chart are the fifteen areas of interest which the ACTIVITY PREFERENCE INVENTORY seeks to measure. At the bottom of the chart is a row of boxes in which to place the separate rubric scores transferred from the answer sheet. These scores will be used to locate the dots on the fifteen vertical axes. Horizontally across the center is a line marked 50 which represents the point at which there is no apparent interest or aversion - the indifference level. Dots above that line mean a liking for interests represented by that particular axis where the dot occurs, while dots below the line mean that that kind of activity is disliked.

The profile chart as set up for the experimental tryout is only tentative but in future use of the instrument a similar chart is anticipated on which, if desired, the pupils might profile their own inventory scores. Pupil scoring would be possible also. These features would have definite advantages in a pupil self-appraisal program.

From these profiles may be seen the general pattern of pupils' interests. These should furnish some educational and vocational help in making plans for the future, as well as in locating special types of things that could well become happy

and profitable leisure-time activities. THE ACTIVITY PREFERENCE INVENTORY does not purport to direct a person to any single occupation or career; it merely serves as a guidepost to interest trails one might well follow or avoid if he is to find happiness in the years ahead.

Preliminary Questionnaire. A questionnaire is to be filled out by each student before doing the inventory. This is being done to secure pertinent information to use both as a validity check and as a means of accumulating significant data relevant to future research and experimentation in connection with this interest measure. Asked for in this questionnaire (Appendix) are:

Name
Sex
Address
Age
School
Year in School
Course
Most Preferred Subject
Least Preferred Subject
School Organizations in Which Membership is Held
School Organizations in Which Membership is Desired
Out-of-School Organizations in Which Membership is Held
Out-of-School Organizations in Which Membership is Desired
Post-High School Plans
Life Work Ambition
Father's Occupation
Mother's Occupation
Physical Handicap (if any)

Immediate Plans for the Application of the Inventory

The ACTIVITY PREFERENCE INVENTORY together with its accessory materials for administration and interpretation

seeks to provide a new and necessary instrument in the field of interest evaluation. Subsequent chapters will report the procedures carried out in the tryout, the techniques employed in the statistical treatment of the results, and the findings resulting from all phases of the initial administration of the ACTIVITY PREFERENCE INVENTORY.

CHAPTER IV

INITIAL TRYOUT OF THE ACTIVITY PREFERENCE INVENTORY

An interest inventory may be designed in accordance with the best principles of test construction currently known to the builder and planned with a view to meeting the statistical criteria of the most painstaking researchers, yet if the completed instrument lacks administrability and utility, it has failed in its mission. Hence, the value of the ACTIVITY PREFERENCE INVENTORY as a measuring instrument can be justified only by putting it into action in a live situation and then subjecting the results of its tryout to a rigid analysis, from both the statistical and practical points of view.

Sampling

Since the ACTIVITY PREFERENCE INVENTORY was designed to assess the interests of teen-agers, it naturally was tried out on a group of adolescents. The sampling used with this experimental edition consisted of three population groups.

The first examinees were 406 students in Deering High School, Portland, Maine. Of these, 104 were in Grade 9; 87 in Grade 10; 107 in Grade 11; and 108 in Grade 12. Sixteen English classes comprised the Portland population: two college preparatory sections and two non-college sections of each of the four classes. Since the classes in this particular school are grouped homogeneously in English, the writer strove to

maintain a balance of good and not-so-good students. (It should be stated here that the grouping is done through a combination of letter grades plus teacher judgment, hence does not meet the criterion of true homogeneity based upon objective data.) The community in which this school is located is the suburban area of Maine's largest city, and although its outskirts include the typical "fringe" population, by and large, the students come from the upper middle and lower upper socio-economic levels. Approximately sixty per cent of the graduating classes of recent years have gone on to college or have pursued higher education in junior colleges, business colleges, or hospitals, hence the reason for perhaps more emphasis on the traditional classical curriculum.

The second segment of the initial tryout population was from Randolph, Vermont. Here is located a consolidated high school which draws not only pupils from its compact village community but from the rural areas of its own and two surrounding towns which do not have their own secondary schools. The entire school population present at the time of testing participated. This included 50 in Grade 9; 54 in Grade 10; 50 in Grade 11; and 33 in Grade 12. This town, almost in the center of the state, is a rugged New England semi-rural community. The course lines are very indefinite and the college course is differentiated solely by those who take Latin.

The third school in the experimental program of the ACTIVITY PREFERENCE INVENTORY was Falmouth High School in

Falmouth, Maine, with 167 pupils cooperating, this being the number of enrolled students present when the inventory was administered. Of these 35 were in the ninth grade; 57 in the tenth; 35 in the eleventh; and 40 in the twelfth. This town is Portland's nearest neighbor on the north and east, and from the steps of the school one may look across to the adjacent city. Thus, the students in this school have city advantages, and, for the most part, habits and leisure time activities which savor more of the city than the country. Falmouth has a somewhat cosmopolitan population consisting of at least four distinct groups: 1) the native New England rural stock; 2) the sea folk who earn their livelihood by fishing; 3) the upper middle and/or lower upper socio-economic families who have professional or managerial positions across the river but who have built homes either along the shore line of their own town or in a socially selective inland area; and 4) the ordinary working folk who labor in offices, factories, or small business establishments in their own, or surrounding, towns. The course offerings in this school are college preparatory, commercial, and general, each of which adequately serves the needs of the students in this mixed suburban-rural area.

Administrative Procedure for the Portland Population

The writer wished to appraise the ACTIVITY PREFERENCE INVENTORY not only from the analysis of the written responses of the pupils in terms of the validity and reliability of the

measure, but also from the student reactions as they took the inventory. Therefore, she personally administered the instrument in the school where she was teaching at the time the experimental edition was ready for its try-out. The college preparatory students of Grade 12 were inventoried first, then the non-college group of that grade, followed by the same pattern in the other three grades in descending order, thus totaling eight separate administrations of the inventory.

Randomization of Forms. The format of the experimental edition of the ACTIVITY PREFERENCE INVENTORY (Appendix) was such that as one opened the booklet, one form was found on the right-hand pages; then, at the end of this form, by turning the booklet upside down, one faced the other form. On the days appointed for the administration of the inventory, each examinee took a booklet from one of two pre-arranged piles, one pile with Form A's on top, the other half with Form B's on top. In this way randomization of the order of taking the forms was secured. Within each booklet was the separate answer sheet and also the personal data questionnaire.

Questionnaire. The first step in the actual administration procedure was the filling out of the personal data questionnaire described in Chapter III, page 84. This yielded a body of significant data relevant to the curricular and extra-curricular life of the student and served as a valuable frame of reference for the appraisal of each individual's interests as well as making it possible to compare the expressed

interests of the teen-ager with his dominant manifest interests. Furthermore, much of this information will serve as a basis for future research and experimentation not within the scope of the study as delimited for this dissertation.

Directions for Administering. The directions as outlined step-by-step in the "Directions for Administering" found in the Appendix were used for the administration of the initial try-out of the ACTIVITY PREFERENCE INVENTORY in both the writer's school and the other two cooperating schools.

Time Element. In the writer's school both forms were taken at one sitting. A two-hour period had been allocated for each group and this proved to be more than ample in every case, the average time required being one and one-half hours.

Pupil Reactions. Judging from the happy expressions of a large majority of the Portland sample, the pupils enjoyed filling out the inventory. However, on the faces of a group of over-age retarded cases were bored looks. Also, toward the end of the time required, several appeared a bit fatigued and this convinced the writer beyond all doubt that the try-out in the two remaining communities should not be in a single sitting. Since the content was such that practice effect would be a negligible factor, the results would suffer no harm if the administration were in two parts.

Change in Procedure for the Randolph and Falmouth Groups

In Randolph the inventory was administered by the guidance director. It was done in two different sittings with

exactly a week's interval between, as the guidance classes met only once a week.

At Falmouth, selected classroom teachers administered, and the two sittings were less than a week apart, varying according to the class schedules.

In both communities the procedure of randomizing the form order was requested and reported to have been carried out.

Scoring Keys

The scoring keys for the experimental edition were logically and subjectively derived. In the initial scoring an activity was keyed to the one rubric to which it seemed to bear the strongest relation. The author is well aware of the fact that an activity may be related, to a greater or less degree, to some rubric other than the one to which it was keyed. However, multiple scoring on the results of the experimental edition was not used in order that the independence of the rubrics might be preserved, thus avoiding the possibility of an artificial correlation between the rubrics when the inter-correlations were done. Later refinement of the instrument on the basis of the results of the initial try-out calls for re-assignment of activities to other rubrics where necessary.

Scoring Procedure

The Portland sheets were sent for machine scoring, but the Strength Mark feature posed a definite snag. No way could be found to circumvent the difficulty which arose when the

Strength Mark was used, since it was common to all four columns and when the test-scoring machine picked it up and registered it there was no way of distinguishing for which of the activities in the ~~row~~ it denoted the strong like or dislike. Therefore, although the machine expedited the scoring of the regular response columns, the Strength Marks had to be covered on the machine stencil mask and tallied separately by hand for each rubric.

The Randolph and Falmouth answer sheets were hand-scored, using a tally sheet with lines for each rubric (Appendix). This tallying procedure proved to be superior to the stencil-scoring method. By way of experiment, student scoring by the use of the tally method was successfully done by three of the writer's classes, later re-checking disclosing very few errors in scoring by the pupils.

There is no such thing as a composite score for the entire inventory; rather, there are fifteen rubric scores plus an unused (at present) total of the "p" or filler-distractor responses chosen. For each rubric, two raw scores are possible, one with, and one without the use of the Strength Mark. The score used for reporting results to the students and for individual guidance was the one re-enforced by the Strength Mark. For the statistical analysis, the other raw score, secured without the inclusion of the Strength Mark, will be used.

As stated earlier, the raw score was derived by subtracting the number of least preferred responses from the number of

most preferred responses for each separate rubric, with 50 added as a constant to eliminate the negative number problem in profiling.

Reporting Results to Pupils

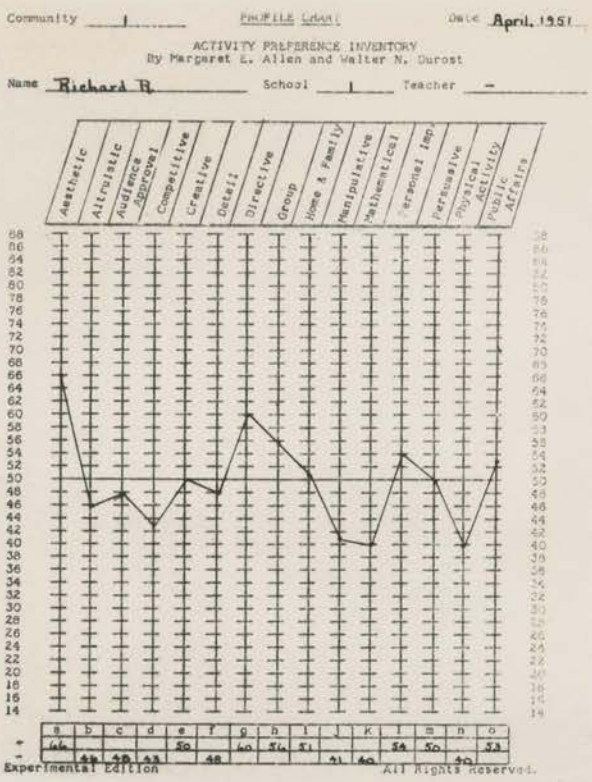
After an individual has taken a test or has been subjected to any type of measuring instrument his next query is, "How did I do?" The ACTIVITY PREFERENCE INVENTORY try-out population was no exception, and as soon as it could be completed, a profile chart was ready for each student.

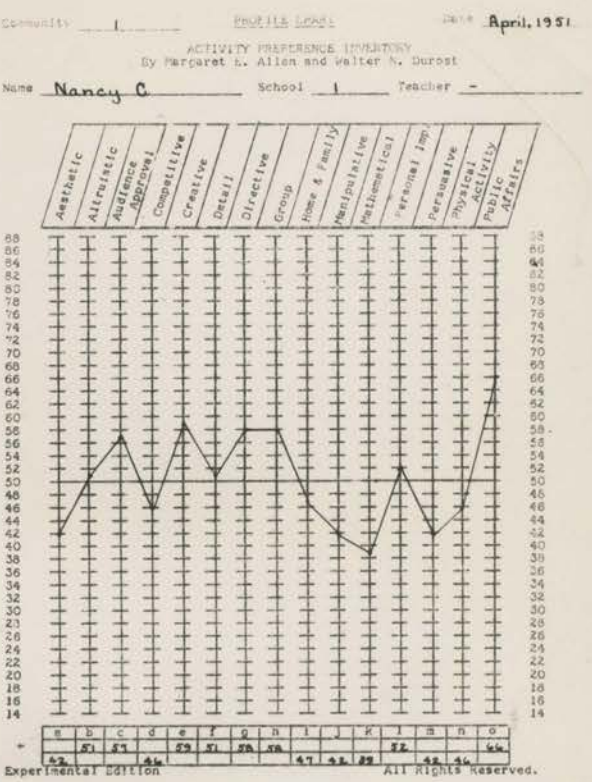
The chart as described in Chapter III, page 82, was drawn to show the likes and dislikes of each student in terms of his fifteen separate rubric scores.

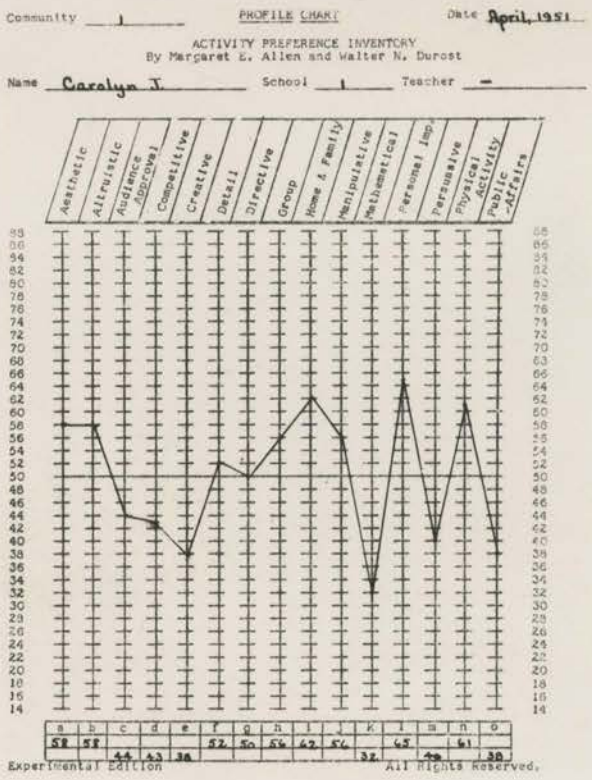
Interpretation of the Profiles

Figure 1 shows four sample profile charts reduced in size to allow for placement on one page for illustrative purposes. Below is a brief verbal interpretation of them in terms of the actual participatory activities of these students as known to the writer and as evidenced by their answers to the personal data questionnaires filled out before they saw the inventories or knew they were forthcoming.

1) Richard R. is a senior. He is an accomplished musician, a concert pianist in the making. He also plays one of the brasses in the school band. According to his questionnaire, he wants to do concert or orchestra work for his career, and plans to continue his education at a music school. He belongs to three of the school's musical organizations as well







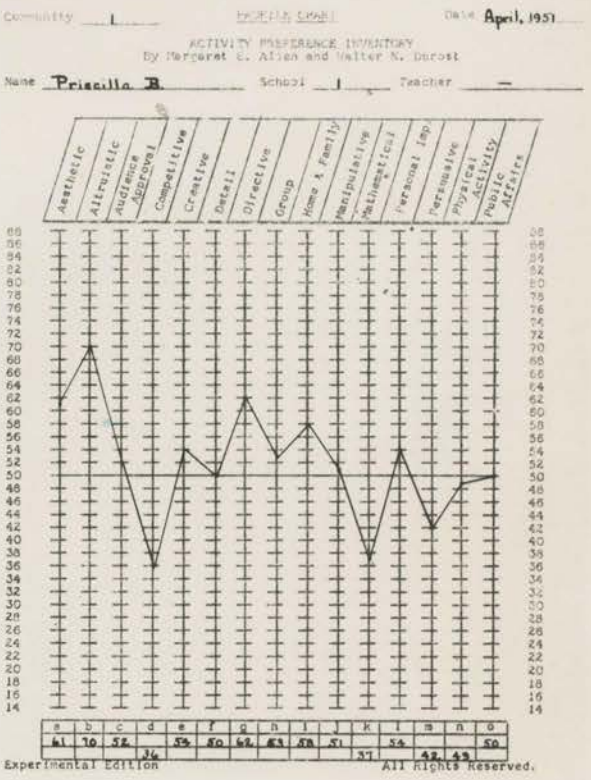


Figure 1 ACTIVITY PREFERENCE INVENTORY: Sample Profile Charts

as the Student Philharmonic Orchestra and the Portland Symphony Orchestra in which he was one of the few high school students to qualify for membership. Thus, his educational, vocational and avocational interests all lean toward music. His interest profile chart from the ACTIVITY PREFERENCE INVENTORY corroborates these. His least preferred school subject, Biology, is substantiated by his low mark in the "manipulative" rubric on the chart. His non-membership in all phases of the school sports program is attested by his "down under" profile in the "competitive" and "physical activity" rubrics.

2) Nancy C. is a junior. She has the highest recorded I.Q. in the present school population. She is a very aggressive individual and is well aware of her mental superiority. She wants to be a journalist and even though still in high school she wishes she might be a current member of the Creative Writing class at our local junior college for girls. She belongs to the school dramatic and French clubs, participates in archery, and is enrolled in the elective woodworking class for girls. Her favorite study is "Problems of Democracy". Nancy's profile chart squares with her manifest interests except in the field of woodworking where one might expect a higher level in the "manipulative" rubric. However, Nancy's motive in that group is to create original things, which may explain the differential.

3) Carolyn J. is a sophomore. Her chief interest is in preparing to be a nurse, although she is a fine musician.

She plans to enter one of our local hospitals upon graduation from high school. Her only school organizational membership is in the orchestra, and outside of school she is a member of her church choir as well as belonging to a teen-age social club. Her profile chart with dominant interests in the "altruistic", "home and family", "manipulative", and "physical activity" rubrics is in line with her questionnaire answers and her actual life activities. Her strong participation in music coincides with her expressed interests in "aesthetic" activities while her least preferred subject, World History, finds a counterpart on the chart in her extreme dislike of "public affairs" activities.

4) Priscilla B. is a freshman. She is a minister's daughter and wants to be a pastoral missionary. She intends to go to a theological school. She is a member of the school orchestra and her church choir, and also of the young people's fellowship at her church. According to her questionnaire, she participates in tennis at school and is a member of the wood-carving group. Her profile chart with the "altruistic" rubric holding top place justifies Priscilla's missionary leanings, and strong interests in "directive" and "home and family" activities also substantiate her expressed vocational desire. The quite-a-bit "aboveness" of the "aesthetic" score and the some-though-little "aboveness" of the "manipulative" rubric score carry out her musical and craft interests. Her least preferred subject, Algebra, is found on the profile chart as

the very low score on the "mathematical" rubric. Her participation in tennis which would ordinarily signify interest in "competitive" and "physical activity" experiences is not substantiated on her profile chart. This, without a personal interview with Priscilla, must be interpreted as one of the lesser interests which are not enough in number or strength to command one of the dominant interest levels.

Use of the Profiles

The purpose of the profiles is to give the pupils broad over-all pictures of their major interests in areas believed common to the average teen-ager. In case the pupil's interest patterns as revealed by this inventory do not square with what he is now doing, in school and/or out, or hopes to do, guidance may be possible to make his life experiences more in line with what he is interested in. Also, guidance will be valuable in those cases where there are no dominant interests. It is just as necessary to help some individuals to find interests as it is to advise those who are perturbed because they have so many. The ACTIVITY PREFERENCE INVENTORY does not pigeon-hole the students in terms of career, or educational plans, or leisure-time activities; it merely delimits the range of occupations, courses, or avocational pursuits in which they would be likely to find the greatest amount of happiness as evidenced by their interest patterns.

Summary

One of the chief aims of the public school is to give

sound guidance to its young citizenry educationally, vocationally, and avocationally. The initial try-out of the ACTIVITY PREFERENCE INVENTORY has attempted, from the practical side, to prove its validity in terms of the fulfillment of the above objective. The chapter on the statistical analysis which follows will strive to justify the validity in statistical terms, as well as report the reliability coefficients, the rubric intercorrelations, the results of the analyses of variance, the item intercorrelations, and the outcome of the item analysis.

CHAPTER V

STATISTICAL TREATMENT OF THE ACTIVITY PREFERENCE INVENTORY

The experimental edition of the ACTIVITY PREFERENCE INVENTORY was given in the Spring of 1951 to a sampling of 760 high school pupils from Deering High School in Portland, Maine; Falmouth High School in Falmouth, Maine; and Randolph High School in Randolph, Vermont. The break-down of this experimental population is shown in Table I below.

TABLE I

EXPERIMENTAL POPULATION BY SCHOOL, GRADE, COURSE, AND SEX

SCHOOL	GRADE											
	BOYS				GIRLS				TOTAL			
	9	10	11	12	9	10	11	12	9	10	11	12
Deering												
College	29	29	17	12	25	30	38	32	54	59	55	44
Non-college	32	20	16	30	22	28	16	30	54	48	32	60
Falmouth												
College	11	7	15	7	11	7	9	8	22	14	24	15
Non-college	11	9	20	8	7	12	13	12	18	21	33	20
Randolph												
College	6	2	11	7	6	12	12	19	12	14	23	26
Non-college	5	19	15	11	16	17	16	13	21	36	31	24
Totals	94	86	94	75	87	106	104	114	181	192	198	189

Reliability

In analyzing and appraising the reliability of the ACTIVITY PREFERENCE INVENTORY, two measures have been used:

the inter-form reliability coefficients and the standard error of measurement.

The uncorrected reliabilities between forms for each rubric are given in Table II. In the same table also are reported the corrected reliability coefficients which are estimates of the reliability of the composite of Forms A and B. For the computation of these latter, the Spearman-Brown prophecy formula was used, since from the known reliability of the shorter test an estimate of the reliability of the longer test was desired

Spearman-Brown Prophecy Formula $$r(1+2) = \frac{2r_{12}}{1+r_{12}}$$

These reliability coefficients represent a measure of the extent to which it is possible judgmentally to set up two groups of items measuring the same thing, hence substantiate the use of the Spearman-Brown formula which assumes that the long test is comparable to the shorter test.

The standard error of measurement ($SE_{meas} = \sigma\sqrt{1-r}$) is reported for each distribution of rubric scores on the ACTIVITY PREFERENCE INVENTORY, separately by sex and order of taking the forms. These are computed on the uncorrected coefficients. Because of the fluctuation due to the operation of chance factors on a single test performance, the standard error of measurement statistic is applied to get an estimate of the spread of this fluctuation were it possible to administer an almost unlimited number of comparable measures of

TABLE II

INTER-FORM RELIABILITY COEFFICIENTS AND STANDARD ERRORS OF MEASUREMENT - BY RUBRIC, SEX, FORM AND ORDER OF FORM

	Rubric	Sex	Form A 1st Mean	Form A 1st Sigma	Form A 2nd Mean	Form A 2nd Sigma	r	*r_c	S.E. Meas	Form B 1st Mean	Form B 1st Sigma	Form B 2nd Mean	Form B 2nd Sigma	r	*r_c	S.E. Meas
a.	Aesthetic	B	46.0	4.8	45.0	5.6	.73	.84	2.7	44.8	6.8	46.1	6.2	.88	.94	2.3
		G	50.3	5.1	51.1	6.1	.84	.91	2.2	51.2	5.3	49.8	5.7	.80	.89	2.5
b.	Altruistic	B	49.2	3.5	49.7	3.9	.61	.76	2.3	48.9	4.1	46.2	4.3	.58	.73	2.7
		G	52.5	3.7	53.2	4.1	.66	.76	2.3	52.8	3.9	53.2	4.3	.73	.84	2.1
c.	Audience Approval	B	46.6	4.2	47.3	4.7	.63	.77	2.7	46.4	5.0	46.9	4.8	.73	.84	2.6
		G	49.8	4.8	49.2	5.0	.64	.78	3.0	49.3	5.2	48.4	5.1	.77	.87	2.5
d.	Competitive	B	53.0	4.6	55.2	5.5	.65	.79	3.0	52.9	4.7	54.4	5.7	.76	.86	2.6
		G	50.6	4.4	50.5	4.8	.66	.76	2.7	49.8	4.9	50.5	5.1	.78	.88	2.3
e.	Creative	B	44.1	4.3	43.8	4.6	.69	.82	2.5	44.9	4.7	49.1	4.7	.62	.77	2.9
		G	43.9	5.2	46.7	5.1	.73	.84	2.7	45.0	5.1	47.2	5.0	.72	.84	2.3
f.	Detail	B	49.4	3.4	49.0	3.5	.48	.65	2.5	49.6	3.4	50.4	3.2	.52	.68	2.3
		G	51.8	3.8	50.6	4.1	.62	.77	2.5	51.4	3.8	49.7	3.3	.59	.74	2.3
g.	Directive	B	52.2	4.2	50.3	4.5	.58	.73	2.8	51.5	4.5	49.5	4.4	.69	.82	2.5
		G	50.1	4.1	50.1	4.4	.66	.76	2.5	50.3	4.2	50.1	4.4	.68	.81	2.4
h.	Group	B	52.6	4.3	52.3	4.1	.71	.83	2.3	53.2	4.7	54.3	3.6	.60	.75	2.6
		G	54.9	4.9	55.3	4.5	.78	.88	2.6	55.5	5.3	55.4	4.4	.74	.85	2.5
i.	Home and Family	B	49.1	3.6	48.3	3.9	.58	.73	2.5	49.3	4.0	48.5	4.0	.53	.69	2.7
		G	51.0	4.6	50.5	4.5	.74	.85	2.4	51.1	4.6	50.4	5.2	.72	.84	2.6
j.	Manipulative	B	53.4	4.2	53.6	4.5	.66	.80	2.6	53.7	4.5	54.1	5.6	.71	.83	2.8
		G	48.4	3.9	47.7	4.4	.61	.76	2.6	48.5	4.3	48.0	4.1	.62	.77	2.6
k.	Mathematical	B	50.5	4.2	51.4	4.9	.65	.79	2.7	50.2	4.4	50.6	4.8	.70	.82	2.5
		G	47.0	4.4	48.2	5.1	.73	.84	2.5	47.8	5.0	48.8	5.3	.75	.86	2.6
l.	Personal Improve-	B	51.8	3.1	50.2	3.3	.51	.68	2.2	51.9	3.6	50.6	3.5	.47	.64	2.5
		G	54.8	3.2	54.0	3.6	.44	.61	2.5	54.8	3.5	55.7	3.3	.40	.57	2.6
m.	Persuasive	B	47.5	4.1	47.2	3.8	.62	.77	2.5	48.4	4.4	48.9	4.1	.61	.76	2.6
		G	45.7	4.0	46.5	3.7	.49	.66	2.8	46.1	4.1	46.5	3.7	.56	.72	2.6
n.	Physical Activity	B	54.0	4.0	54.0	4.2	.49	.66	2.4	53.5	4.4	53.9	4.8	.69	.82	2.6
		G	50.9	4.2	51.4	5.0	.57	.73	3.0	50.6	4.5	52.0	4.3	.74	.85	2.2
o.	Public Affairs	B	48.8	4.9	49.2	5.5	.66	.76	3.0	48.4	4.5	48.1	4.4	.58	.73	2.9
		G	46.0	5.0	45.4	5.8	.78	.88	2.5	44.9	4.6	44.7	5.3	.73	.84	2.6

*r_c Correlation coefficient corrected by the Spearman-Brown Prophecy Formula

the same thing. In this study, these signify the amount by which an individual's actual score on any one rubric is likely to vary two-thirds of the time from his unknown true score, which score, as indicated above, is obtainable only by giving this person an infinite number of forms of the same test, a situation not possible in actuality.

To understand fully the reliability coefficients in Table II, one must realize the nature of the variables under consideration and the administrative procedures followed. In 406, or better than half of the 760 cases tested in the experiment, the students took the entire inventory, both Forms A and B, at one sitting. In the 187 cases in the second segment, there was an interval of exactly a week between the administration of the forms. The remaining 167 testees likewise took the inventory in two sittings, but the interval varied from two days to a week due to administrative functions in scheduling. However, in all three population segments of the experiment, the forms were randomized, thus equalizing the effect of external conditions on the forms at the time of taking. Table II represents the composite of these three groupings, separated by sex and the order in which the forms were taken. Although the table is set up in terms of inter-form reliabilities, a kind of test-retest situation enters in also, since the testee faces up to each activity twice during the inventory, yet in a different cluster of activities and in a different situation. Under such conditions one would

expect a high correlation, yet not necessarily a perfect one if an individual's feelings toward a certain type of activity were at the borderline of liking and disliking. Thus, since the reliability coefficients reported here are a measure of the consistency of an individual's answers in such a situation, unless a clear-cut response always in the same direction is elicited in these borderline activities, the reliability coefficient would of necessity fall below unity.

Therefore, interpreted against this background plus the restricted range of scores (38 raw score points, as there are 19 activities assigned to each rubric, and thus one may record 19 responses in either the "like" or "dislike" direction), the reliability coefficients reported may be considered to be quite satisfactory, all the more so, because they were computed separately for boys and girls, further broken down into the order in which the forms were taken.

Intercorrelations of Rubrics

The intercorrelations of the rubrics, separately for boys and girls, were secured. An analysis of the intercorrelation matrices in Tables III-A and III-B, resulting in a preponderance of very low correlations, indicates on the surface that all fifteen of the rubrics are relatively independent. However, the matrices were undoubtedly strongly affected by the employment of the forced-choice technique, i.e., there would naturally be a tendency for very low and also many negative correlations because as a score goes up in one rubric it must

	Aud. Appr.	Aesthetic	Competitive	Creative	Group	Phys. Activ.	Pub. Aff.	Directive	Math.	Manipulative	Persuasive	Home & Fam.	Detail	Altruistic	Pers. Impr.	Average inter-r
Aud. Appr.		(.161)	-.034	.018	-.058	(-.187)	-.074	(.163)	(-.390)	(-.260)	-.082	(-.154)	(-.225)	-.022	-.013	-.082
Aesthetic			(-.260)	(.212)	(-.229)	-.124	(-.148)	-.017	(-.320)	-.053	-.113	-.005	(.140)	-.034	-.074	-.088
Competitive				-.067	.073	(.258)	-.114	.023	-.012	.039	-.050	(-.393)	(-.147)	(-.232)	(-.228)	-.082
Creative					(-.169)	.169	-.103	-.105	(-.241)	(-.196)	(-.245)	(-.180)	(-.323)	(-.174)	(-.150)	-.088
Group						(.247)	-.114	(.229)	-.025	(-.220)	.047	(-.180)	-.099	(-.208)	.102	-.068
Phys. Activ.							-.085	(-.281)	.002	(.295)	.100	(-.166)	-.085	(-.183)	(-.218)	-.067
Pub. Aff.								(.206)	-.120	(-.214)	.100	(-.170)	-.012	.002	-.086	-.087
Directive									(-.229)	(-.295)	(-.175)	(-.199)	-.105	-.104	-.072	-.062
Math.										(.158)	-.035	(.188)	(.188)	-.091	-.067	-.061
Manipulative											(-.132)	-.032	-.003	-.085	(-.204)	-.058
Persuasive												.025	(-.201)	(.171)	-.037	-.054
Home & Fam.													(.265)	(.210)	.039	-.054
Detail														.031	(.156)	-.051
Altruistic															.079	-.046
Pers. Impr.																-.042

Legend:

Red - positive significance at the 1% level

Green - negative significance at the 1% level

(.127)

	Creative	Competitive	Manipulative	Aesthetic	Aud. Approval	Directive	Pub. Affairs	Phys. Activ.	Mathematical	Persuasive	Group	Home & Fam.	Altruistic	Pers. Impr.	Detail	Average Inter-r
Creative		-.087	.110	(.304)	.037	-.109	(-.168)	-.028	(.233)	(-.280)	(-.152)	-.049	(-.178)	(-.212)	-.065	-.079
Competitive			-.043	(-.384)	-.136	.039	-.020	(.250)	.029	-.060	(.160)	(-.272)	(-.138)	(-.211)	(-.235)	-.079
Manipulative				(-.213)	(-.300)	(-.249)	(-.219)	(.303)	.050	(-.213)	-.022	.027	(-.148)	(-.224)	.044	-.078
Aesthetic					(.248)	-.003	(-.183)	(-.212)	(-.343)	(-.181)	(-.280)	.070	-.006	-.024	.114	-.078
Aud. Appr'l						(.179)	-.137	(-.339)	(-.390)	-.001	-.085	-.118	-.025	(.162)	-.132	-.074
Directive							(.180)	(-.255)	(-.230)	-.109	(.146)	(-.293)	-.133	.039	(-.235)	-.074
Pub. Affairs								-.097	.045	.023	-.081	(-.186)	-.085	-.099	.038	-.069
Phys. Act.									.081	-.072	-.006	-.091	(-.214)	(-.183)	-.105	-.069
Mathematical										-.107	.055	.077	-.096	-.031	.129	-.069
Persuasive											.048	.028	(.167)	.094	(-.198)	-.065
Group												(-.238)	(-.193)	-.014	(-.232)	-.064
Home & Fam.													(.252)	(-.158)	(.205)	-.058
Altruistic														.124	-.030	-.050
Pers. Impr.															.044	-.048
Detail																-.047

Legend:

Red - positive significance at the 1% level

Green - negative significance at the 1% level

(.138)

of necessity drop in another.

In the construction of an instrument sub-divided into separate factors, one, of course, strives for low inter-correlations to guarantee as much freedom from overlapping as possible.

Also, the independence of scoring (scoring for only the rubric to which the activity logically seemed to bear the strongest relation) made it possible for the intercorrelations to approach zero.

As a further interpretation of the intercorrelation matrices the standard error of a correlation coefficient was applied, since, according to Walker,[1] "when the population value, or p, is zero and N is not small, the sampling distribution of r is normal and has a standard deviation of $\frac{1}{\sqrt{N-1}}$!"

The mean of the distribution of intercorrelations for the girls' scores was -.084, while for the boys the mean was -.086. This average correlation closely approximates the chance value of -.07 that such a matrix of correlations would have if one postulated a true value of zero. This value for the above matrices was worked out for the writer and her adviser by Dr. Truman L. Kelley, Professor Emeritus of Harvard.

Less than half the correlations in either matrix had any significance either positively or negatively at the 1% level,

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1/Helen M. Walker, Elementary Statistical Methods, Henry Holt and Company, New York, 1943, p. 247.

and few of these ran very high, the highest being -.390 between Mathematical and Audience Approval for both sexes.

On the basis of the intercorrelations as revealed by this study, no justification could be found for eliminating any rubric because it seemed to be measuring any other rubric. The intercorrelations were so low that it was deemed useless to do a factor analysis in this situation.

Analysis of Variance

In the experimental tryout of the ACTIVITY PREFERENCE INVENTORY, as many meaningful approaches as possible were sought for a full appraisal of the resulting data. In addition to securing the inter-form reliabilities along with their standard errors of measurement, and then determining the independence of the rubrics through intercorrelations, an analysis of variance was done separately by sex for each of the fifteen rubrics.

This technique, embodying the breaking down of the total variance into the separate and independent factors of which it is composed makes it possible to study the cause and significance of the separate variations of score. It has two major values: 1) it is possible to study the separate elements of the total variance simultaneously rather than having to compute separately a standard error for each of the possible factors one might wish to single out; and 2) it provides, in addition to its efficiency in time and labor saving, an exact

test of the null hypothesis, thus obviating Johnson's[1] chief objection to the standard error technique which is "that in many cases the obtained estimates of standard errors may not differ beyond merely sampling errors" which is not so accurate as "pooling the sums of squares of deviation from the different means and by applying the combined estimate in the test of significance."

The analyses of variance done in connection with this study and reported in Table IV comprise separately by sex the total variance in terms of the variables of course and grade, their interactions, and the residual. The residual is that part of the total variance which can be attributed to chance fluctuation or unassignable causes of error.

The column of the table labeled "sum of squares" contains the sum of the squares of the deviations of all the variables about the grand mean. The figures in the "mean square" column were obtained by dividing the sums of squares of deviations by the degrees of freedom which are one less than the number of means involved in the variable being studied.

The significance is studied in terms of the F-ratio, found by dividing the mean square deviation of any one of the main effects or interactions by the mean square of the residual. Snedecor's "F Table" is entered to determine whether the source

1/Palmer O. Johnson, Statistical Methods in Research, Prentice-Hall, Inc., New York, 1949, p. 216.

TABLE IV

ANALYSES OF VARIANCE OF THE RUBRIC SCORES SEPARATELY BY SEX IN TERMS OF COURSE AND GRADE

	SOURCE OF VARIATION	d.f.	SUM OF SQUARES	MEAN SQUARE	F RATIO
AESTHETICS Girls	Course	1	1770.5	1770.50	15.95 *
	Grade	3	812.6	270.87	2.44
	Course x Grade	3	183.5	61.17	.55
	Residual	403	44,726.2	110.98	
	Total	410	47,492.8		
AESTHETICS Boys	Course	1	58.4	58.40	.47
	Grade	3	249.0	83.00	.66
	Course x Grade	3	226.4	75.47	.60
	Residual	341	42,532.2	124.73	
	Total	348	43,066.0		
ALTRUISTIC Girls	Course	1	517.4	517.40	10.25*
	Grade	3	784.2	261.40	5.18*
	Course x Grade	3	505.3	168.43	3.34
	Residual	403	20,340.5	50.47	
	Total	410	22,147.4		
ALTRUISTIC Boys	Course	1	1092.8	1092.80	24.77 *
	Grade	3	1158.5	386.17	8.75 *
	Course x Grade	3	-174.5	- - -	- - -
	Residual	341	15,042.6	44.11	
	Total	348	17,119.4		
AUDAPPROVAL Girls	Course	1	497.1	497.10	5.81
	Grade	3	115.5	38.50	.45
	Course x Grade	3	306.0	102.00	1.19
	Residual	403	34,480.4	85.56	
	Total	410	35,399.0		
AUDAPPROVAL Boys	Course	1	1115.9	1115.90	15.87 *
	Grade	3	257.3	85.77	1.22
	Course x Grade	3	145.7	48.57	.69
	Residual	341	23,984.2	70.33	
	Total	348	25,503.1		

* Significant at the 1 per cent level

TABLE IV, cont'd

ANALYSES OF VARIANCE OF THE RUBRIC SCORES SEPARATELY BY SEX IN TERMS OF COURSE AND GRADE

		SOURCE OF VARIATION	d.f.	SUM OF SQUARES	MEAN SQUARE	F RATIO	
COMPETITIVE	Girls	Course	1	.7	.70	.01	
		Grade	3	455.2	151.73	1.74	
		Course x Grade	3	126.1	42.03	.48	
		Residual	403	35,112.2	87.13		
		Total	410	35,694.2			
	Boys	Course	1	3.7	3.70	.04	
		Grade	3	126.5	42.17	.45	
		Course x Grade	3	401.4	133.80	1.44	
		Residual	341	31,625.2	92.74		
		Total	348	32,156.8			
CREATIVE	Girls	Course	1	238.4	238.40	2.78	
		Grade	3	244.8	81.60	.95	
		Course x Grade	3	528.6	176.20	2.05	
		Residual	403	34,560.1	85.76		
		Total	410	35,571.9			
	Boys	Course	1	405.3	405.30	5.86	*
		Grade	3	177.1	59.00	.85	
		Course x Grade	3	463.1	154.37	2.23	
		Residual	341	23,588.3	69.17		
		Total	348	24,633.8			
DETAIL	Girls	Course	1	351.1	351.10	8.15	*
		Grade	3	113.9	27.97	.88	
		Course x Grade	3	880.0	293.33	6.81	*
		Residual	403	17,364.5	43.09		
		Total	410	18,709.5			
	Boys	Course	1	3.5	3.50	.11	
		Grade	3	26.5	8.83	.27	
		Course x Grade	3	417.2	139.07	4.25	*
		Residual	341	11,146.5	32.69		
		Total	348	11,593.7			

* Significant at the 1 per cent level

TABLE IV, cont'd

ANALYSES OF VARIANCE OF THE RUBRIC SCORES SEPARATELY BY SEX IN TERMS OF COURSE AND GRADE

	SOURCE OF VARIATION	d.f.	SUM OF SQUARES	MEAN SQUARE	F RATIO
DIRECTIVE Girls	Course	1	3438.0	3438.00	67.65 *
	Grade	3	208.5	69.50	1.37
	Course x Grade	3	283.3	94.43	1.86
	Residual	403	20,480.6	50.82	
	Total	410	24,410.4		
DIRECTIVE Boys	Course	1	2198.0	2198.00	37.51*
	Grade	3	679.4	226.47	3.86*
	Course x Grade	3	91.6	30.53	.52
	Residual	341	19,982.0	58.60	
	Total	348	22,951.0		
GROUP Girls	Course	1	192.5	192.50	2.55
	Grade	3	1644.6	548.20	7.27 *
	Course x Grade	3	304.6	101.53	1.35
	Residual	403	30,390.5	75.41	
	Total	410	32,532.2		
GROUP Boys	Course	1	187.5	187.50	3.23
	Grade	3	263.2	87.73	1.51
	Course x Grade	3	239.0	79.67	1.37
	Residual	341	19,803.1	58.07	
	Total	348	20,492.8		
HOME & FAMILY Girls	Course	1	1303.6	1303.60	2.03
	Grade	3	30.3	10.10	.02
	Course x Grade	3	737.6	245.87	.38
	Residual	403	25,822.5	640.76	
	Total	410	27,984.0		
HOME & FAMILY Boys	Course	1	368.3	368.30	7.89 *
	Grade	3	105.9	35.30	.76
	Course x Grade	3	59.6	19.87	.43
	Residual	341	15,920.9	46.69	
	Total	348	16,454.7		

* Significant at the 1 per cent level

TABLE IV, cont'd

ANALYSES OF VARIANCE OF THE RUBRIC SCORES SEPARATELY BY SEX IN TERMS OF COURSE AND GRADE

		SOURCE OF VARIATION	d.f.	SUM OF SQUARES	MEAN SQUARE	F RATIO
MANIPULATIVE	Girls	Course	1	1.8	1.80	.03
		Grade	3	559.6	186.53	3.52
		Course x Grade	3	122.0	40.67	.77
		Residual	403	21,360.2	53.00	
		Total	410	22,043.6		
	Boys	Course	1	76.3	76.30	1.04
		Grade	3	375.3	125.10	1.70
		Course x Grade	3	55.5	18.50	.25
		Residual	341	25,117.6	73.66	
		Total	348	25,624.7		
MATHEMATICAL	Girls	Course	1	2346.8	2346.80	30.03*
		Grade	3	296.7	98.90	1.27
		Course x Grade	3	-10.9	- - - -	- - -
		Residual	403	31,485.2	78.13	
		Total	410	34,117.8		
	Boys	Course	1	33.0	33.00	.45
		Grade	3	328.4	109.47	1.50
		Course x Grade	3	285.5	95.17	1.30
		Residual	341	24,901.4	73.02	
		Total	348	25,548.3		
PERSON IMPROV	Girls	Course	1	15.1	15.10	.49
		Grade	3	206.5	68.83	2.25
		Course x Grade	3	281.8	93.93	3.08
		Residual	403	12,302.2	30.53	
		Total	410	12,805.6		
	Boys	Course	1	214.7	214.70	6.76*
		Grade	3	276.4	92.13	2.90
		Course x Grade	3	220.6	73.53	2.31
		Residual	341	10,835.4	31.77	
		Total	348	11,547.1		

* Significant at the 1 per cent level

TABLE IV, cont'd

ANALYSES OF VARIANCE OF THE RUBRIC SCORES SEPARATELY BY SEX IN TERMS OF COURSE AND GRADE

		SOURCE OF VARIATION	d.f.	SUM OF SQUARES	MEAN SQUARES	F RATIO
PERSUASIVE	Girls	Course	1	914.7	914.70	20.93*
		Grade	3	313.5	104.50	2.39
		Course x Grade	3	273.0	91.00	2.08
		Residual	403	17,610.7	43.70	
		Total	410	19,111.9		
	Boys	Course	1	448.6	448.60	8.37*
		Grade	3	269.1	89.70	1.67
		Course x Grade	3	-22.2	- - -	- - -
		Residual	341	18,263.1	53.56	
		Total	348	18,958.6		
PHYS ACTIVITY	Girls	Course	1	76.7	76.70	1.27
		Grade	3	218.2	72.73	1.20
		Course x Grade	3	659.9	219.97	3.64
		Residual	403	24,367.3	60.46	
		Total	410	25,322.1		
	Boys	Course	1	508.3	508.30	8.73*
		Grade	3	341.8	113.93	1.96
		Course x Grade	3	215.7	71.90	1.23
		Residual	341	19,857.3	58.23	
		Total	348	20,923.1		
PUB AFFAIRS	Girls	Course	1	870.0	870.00	9.17*
		Grade	3	645.6	215.20	2.27
		Course x Grade	3	578.6	192.87	2.03
		Residual	403	38,247.1	94.90	
		Total	410	40,341.3		
	Boys	Course	1	489.4	489.40	6.66
		Grade	3	384.8	128.27	1.75
		Course x Grade	3	484.9	161.63	2.20
		Residual	341	25,059.8	73.49	
		Total	348	26,418.9		

* Significant at the 1 per cent level

of the variation being tested is contributing to the total variance to a statistically significant degree.

Due to the large number of tests of significance (90) and the resulting inflation of probabilities, the more stringent 1% level of significance rather than the 5% level has been chosen. In only one rubric is there "grade" significance for both sexes and this is purely a chance expectation at the 1% level.

Although several of the "course" effects are statistically significant for either one sex or the other, in only three rubrics is this true for both sexes. This reflects the fact that the delineation of course content is not known in this study nor the factors underlying the selection of the courses.

In three of the thirty separate analyses, negative sums occur. This is a chance effect that can arise when cell frequencies are unequal. The plotting of the means for these three analyses containing negative sums revealed that for two of them there was no interaction whatsoever, while for the Altruistic rubric for boys there was interaction at the ninth grade level.

In the Detail rubric for both sexes where was found the only other statistically interaction, this was at the ninth and twelfth grade levels, as gleaned from a plotting of the means for each. This exceeds the chance expectation, yet the significance of each is reduced in importance due to the fact that there is a total of thirty such tests.

The results of the analyses preclude the need to pay further attention to "courseness" or "gradeness" in interpreting the results of the experimental tryout of the ACTIVITY PREFERENCE INVENTORY.

Validity

One of the criteria of a good test is high validity but this is one of the hardest criteria to establish statistically, especially on an interest measure. It would be desirable to conduct a longitudinal study over a period of years to see if those who in adolescence professed interests in the broad areas sampled by this inventory apply these interests in tangible form as they enter the adult world of work and play. Such, of course, is not possible with the ACTIVITY PREFERENCE INVENTORY in its present state, since one of the purposes of the experimental tryout was to have a basis for refining the present instrument which in its status quo will not be used again.

However, the ACTIVITY PREFERENCE INVENTORY does have face validity in that it samples a wide range of activities common to high school youth in general and does not require the adolescent to prematurely consider interests on an adult level. This can be substantiated by a careful study of each of the 150 situations and 600 activities presented in the inventory.

Another phase of logical validity is presented, namely, that of comparing the expressed interests of adolescents as reported on the personal data sheets made out prior to taking the inventory. For example, for those who said they preferred

Aeronautics, it was judged that the most closely related rubric would be "manipulative" and 100% of these pupils had manipulative scores above the mean (50) on the profile chart. For all who said their least preferred subject was Biology, 81% had a rubric score below the mean (50) on the profile chart in the "manipulative" rubric which seemed to bear the strongest relation to Biology.

The listings in terms of Most and Least Preferred Subjects are reported in Tables V and VI. In preparing the data for Table VII, all the activities the students said they were participating in or would like to if they had the chance were assigned to rubrics on the same judgmental basis, and the percentage of those whose activities squared with their rubric scores was found in terms of total activity choices.

TABLE V

PERCENTAGE OF PUPILS
WHOSE MOST PREFERRED SUBJECT IS ACCOMPANIED BY A SCORE
ABOVE THE MEAN IN THE RUBRIC TO WHICH THAT SUBJECT WAS ASSIGNED

MOST PREFERRED SUBJECT	APPLICABLE RUBRIC	PERCENTAGE
Aeronautics	Manipulative	100.0
Art	Aesthetic	90.9
Biology	Manipulative	76.2
Bookkeeping	Mathematical	83.3
Chemistry	Manipulative	90.9
History	Public Affairs	60.0
Home Economics	Home and Family	75.8
Mathematics	Mathematical	77.4
Mechanical Drawing	Mathematical	70.6
Navigation	Manipulative	66.7
Physics	Manipulative	100.0
Music	Aesthetic	90.0
Pre-Nursing	Altruistic	100.0
Problems of Democracy	Public Affairs	75.0
Radio	Manipulative	100.0
Science	Manipulative	80.0
Sewing	Detail	100.0
Shop	Manipulative	96.8
Shorthand	Detail	75.0
Sociology	Altruistic	66.7
Typing	Detail	86.4

TABLE VI

PERCENTAGE OF PUPILS
WHOSE LEAST PREFERRED SUBJECT IS ACCOMPANIED BY A SCORE
BELOW THE MEAN IN THE RUBRIC TO WHICH THAT SUBJECT WAS ASSIGNED

LEAST PREFERRED SUBJECT	APPLICABLE RUBRIC	PERCENTAGE
Biology	Manipulative	81.0
Bookkeeping	Mathematical	50.0
Chemistry	Manipulative	76.2
Civics	Public Affairs	81.5
History	Public Affairs	81.8
Home Economics	Home and Family	83.3
Mathematics	Mathematical	72.2
Mechanical Drawing	Mathematical	100.0
Physics	Manipulative	100.0
Problems of Democracy	Public Affairs	92.3
Science	Manipulative	53.3
Typing	Detail	42.9

TABLE VII

PERCENTAGE OF PUPILS
WHOSE RUBRIC SCORES ARE IN LINE WITH THEIR ACTUAL OR
DESIRED PARTICIPATORY ACTIVITIES BOTH IN SCHOOL AND OUTSIDE

RUBRIC	PERCENTAGE OF PUPILS
Aesthetic	58.2
Altruistic	83.3
Audience Approval	70.1
Competitive	85.8
Creative	87.5
Detail	68.4
Directive	74.5
Group	91.2
Home and Family	83.3
Manipulative	75.3
Mathematical	33.3
Persuasive	46.2
Physical Activity	81.8
Public Affairs	42.9

Item Analysis

The final step in the treatment of the data resulting from the initial tryout was the item analysis. The procedure followed was suggested by Dr. Leonard V. Gordon, formerly of the Boston University faculty, who has done much work with the forced-choice technique.

The Gordon Technique. A random sample of 200 answer sheets was selected. The answer sheets were divided into two piles of 100 each. The 100 top scores for rubric "a" were placed in one pile, and the 100 lowest scores in the other pile. For each paper in the upper group and for each paper in the lower group was tabulated the number of most preferred and least preferred responses for the entire 75 situations and their 300 activities for Form A. The same was done for Form B. This procedure was repeated for each of the 15 rubrics. The data resulting therefrom was set up in 2 x 3-cell contingency tables, the cells on the 3-way side being labeled "Most," "Omit," and "Least"; and on the 2-way side, "Upper 50%" and "Lower 50%."

For each of these tables a correlation was computed by the use of a special formula derived by Dr. Gordon to use in working out simple Pearson product moments in a forced-choice situation as in the ACTIVITY PREFERENCE INVENTORY.

	Most	Omit	Least
Upper	d		g
Lower	a		c
	A		C

$$r_{rP}^2 = \frac{[(a + g) - (c + d)]^2}{N(C + A) - (C - A)^2}$$

A = a - d
C = c - g
N = total number of papers

Results of the Item Analysis. After the 9000 correlations (Appendix) had been computed, the cutting line of significance was determined in terms of the standard error of a correlation coefficient. A correlation of .183 was found to be the lowest correlation statistically significant from zero. On this basis the individual intercorrelations were studied. First, those activities which, keyed to their own rubrics, proved significant were isolated first. Next were analyzed the activities which in their own rubric did not produce a significant correlation; these, wherever statistically significant and logically sensible, were allocated to another rubric. Lastly, careful study was given to all activities which had significant correlations in rubrics other than their own, and wherever multiple scoring was deemed wise, these activities were assigned to more than one rubric. However, in many instances there was no logical relationship between an activity and the rubric to which it bore statistical significance. Serious consideration of this problem led the writer to attribute this to the employment of the forced-choice situation which may have resulted in some artificial inter-relationships. The data presented in Tables VIII and IX serve not only as a re-

port of the major factors of the item analysis but also as the springboard from which this test can be revised and refined for future use beyond the scope of this study. Table VIII is a summarization of the predictive activities resulting from the item analysis while Table IX breaks the summary down into individual activity-rubric combinations coded to the items in the experimental edition.

TABLE VIII

PREDICTIVE ACTIVITIES RESULTING FROM THE ITEM ANALYSIS IN TERMS OF ACTIVITIES SIGNIFICANT IN THEIR OWN RUBRIC, RE-ALLOCATED ACTIVITIES, AND ACTIVITIES PERMITTING MULTIPLE SCORING

RUBRIC	FORM	SIGNIFICANT IN OWN RUBRIC	RE-ALLOCATED ACTIVITIES	MULTIPLE SCORING	TOTAL
a	A	16	2	2	20
a	B	19	1	0	20
b	A	13	2	2	17
b	B	16	6	1	23
c	A	13	4	2	19
c	B	14	3	5	22
d	A	15	4	5	24
d	B	17	1	3	21
e	A	16	2	4	22
e	B	17	2	6	25
f	A	12	2	1	15
f	B	13	2	2	17
g	A	12	2	1	15
g	B	14	0	0	14
h	A	16	2	2	20
h	B	13	2	5	20
i	A	18	0	1	19
i	B	15	2	0	17
j	A	12	2	3	17
j	B	14	2	13	29
k	A	15	1	1	17
k	B	16	0	0	16
l	A	12	2	2	16
l	B	11	3	2	16
m	A	14	0	1	15
m	B	11	0	0	11
n	A	17	3	9	29
n	B	12	1	9	22
o	A	16	4	0	20
o	B	18	0	0	18

TABLE IX

PREDICTIVE ACTIVITIES RESULTING FROM THE ITEM ANALYSIS IN TERMS OF ACTIVITIES SIGNIFICANT IN THEIR OWN RUBRIC, RE-ALLOCATED ACTIVITIES, AND ACTIVITIES PERMITTING MULTIPLE SCORING CODED TO THEIR SITUATION NUMBER IN THE EXPERIMENTAL EDITION

Rubric "a" - Form A

Significant in own rubric: 12a, 15a, 18a, 20a, 26a, 33a, 35a, 40a, 44a, 48a, 49a, 56a, 57a, 61a, 64a, 74a.

Re-allocated activities: 52n, 72c.

Multiple scoring possibilities: 32e, 36i.

Rubric "a" - Form B

Significant in own rubric: 2a, 8a, 10a, 16a, 25a, 29a, 30a, 34a, 35a, 41a, 44a, 45a, 48a, 54a, 58a, 65a, 71a, 74a, 75a.

Re-allocated activities: 45i.

Multiple scoring possibilities: --

Rubric "b" - Form A

Significant in own rubric: 3b, 13b, 22b, 25b, 41b, 50b, 51b, 54b, 55b, 60b, 61b, 62b, 72b.

Re-allocated activities: 13m, 63j.

Multiple scoring possibilities: 27n, 45k.

Rubric "b" - Form B

Significant in own rubric: 3b, 14b, 18b, 20b, 22b, 25b, 36b, 38b, 42b, 45b, 63b, 66b, 67b, 68b, 71b, 73b.

Re-allocated activities: 18c, 35p, 40c, 43g, 62g, 62n.

Multiple scoring possibilities: 6f.

TABLE IX, cont'd

PREDICTIVE ACTIVITIES RESULTING FROM THE ITEM ANALYSIS IN TERMS OF ACTIVITIES SIGNIFICANT IN THEIR OWN RUBRIC, RE-ALLOCATED ACTIVITIES, AND ACTIVITIES PERMITTING MULTIPLE SCORING CODED TO THEIR SITUATION NUMBER IN THE EXPERIMENTAL EDITION

Rubric "c" - Form A

Significant in own rubric: 9c, 11c, 16c, 22c, 24c, 25c, 31c, 44c, 45c, 49c, 53c, 65c, 75c.

Re-allocated activities: 18g, 55m, 65p, 66d.

Multiple scoring possibilities: 32g, 55j.

Rubric "c" - Form B

Significant in own rubric: 1c, 2c, 11c, 14c, 19c, 32c, 33c, 34c, 43c, 44c, 45c, 47c, 59c.

Re-allocated activities: 15l, 34h, 63d.

Multiple scoring possibilities: 8a, 28g, 29l, 50e, 72d.

Rubric "d" - Form A

Significant in own rubric: 10d, 15d, 16d, 21d, 24d, 28d, 31d, 34d, 41d, 43d, 51d, 67d, 68d, 69d, 73d.

Re-allocated activities: 19g, 24p, 41n, 53l.

Multiple scoring possibilities: 2n, 11h, 12n, 37n, 52n.

Rubric "d" - Form B

Significant in own rubric: 1d, 3d, 22d, 23d, 27d, 31d, 34d, 43d, 48d, 49d, 50d, 51d, 57d, 59d, 65d, 70d, 72d.

Re-allocated activities: 16h.

Multiple scoring possibilities: 8n, 21n, 25n.

TABLE IX, cont'd

PREDICTIVE ACTIVITIES RESULTING FROM THE ITEM ANALYSIS IN TERMS OF ACTIVITIES SIGNIFICANT IN THEIR OWN RUBRIC, RE-ALLOCATED ACTIVITIES, AND ACTIVITIES PERMITTING MULTIPLE SCORING CODED TO THEIR SITUATION NUMBER IN THE EXPERIMENTAL EDITION

Rubric "e" - Form A

Significant in own rubric: 3e, 4e, 7e, 9e, 22e, 32e, 38e, 41e, 42e, 52e, 54e, 56e, 57e, 59e, 65e, 70e.

Re-allocated activities: 7b, 70b.

Multiple scoring possibilities: 40a, 44a, 49a, 61a.

Rubric "e" - Form B

Significant in own rubric: 2e, 5e, 11e, 13e, 14e, 18e, 28e, 30e, 31e, 32e, 33e, 39e, 48e, 50e, 53e, 56e, 74e.

Re-allocated activities: 2f, 7p.

Multiple scoring possibilities: 16a, 29a, 41a, 44a, 54a, 58a.

Rubric "f" - Form A

Significant in own rubric: 4f, 7f, 14f, 17f, 23f, 27f, 32f, 40f, 45f, 46f, 52f, 58f.

Re-allocated activities: 10k, 66b.

Multiple scoring possibilities: 60m.

Rubric "f" - Form B

Significant in own rubric: 5f, 13f, 22f, 24f, 26f, 32f, 52f, 56f, 60f, 61f, 64f, 68f, 73f.

Re-allocated activities: 60m, 66l.

Multiple scoring possibilities: 17k, 17m.

TABLE IX, cont'd.

PREDICTIVE ACTIVITIES RESULTING FROM THE ITEM ANALYSIS IN TERMS OF ACTIVITIES SIGNIFICANT IN THEIR OWN RUBRIC, RE-ALLOCATED ACTIVITIES, AND ACTIVITIES PERMITTING MULTIPLE SCORING CODED TO THEIR SITUATION NUMBER IN THE EXPERIMENTAL EDITION

Rubric "g" - Form A

Significant in own rubric: 14g, 25g, 27g, 32g, 38g, 45g, 46g, 50g, 60g, 61g, 65g, 75g.

Re-allocated activities: 14o, 22m.

Multiple scoring possibilities: 22b.

Rubric "g" - Form B

Significant in own rubric: 1g, 6g, 23g, 26g, 27g, 28g, 33g, 44g, 49g, 52g, 60g, 61g, 64g, 69g.

Re-allocated activities: --

Multiple scoring possibilities: --

Rubric "h" - Form A

Significant in own rubric: 1h, 5h, 8h, 15h, 28h, 31h, 33h, 35h, 43h, 44h, 47h, 54h, 62h, 68h, 69h, 73h.

Re-allocated activities: 20e, 29p.

Multiple scoring possibilities: 361, 52e.

Rubric "h" - Form B

Significant in own rubric: 20h, 23h, 31h, 36h, 42h, 46h, 49h, 54h, 55h, 66h, 67h, 68h, 75h.

Re-allocated activities: 12p, 65p.

Multiple scoring possibilities: 3j, 18b, 741, 291, 61g.

TABLE IX, cont'd

PREDICTIVE ACTIVITIES RESULTING FROM THE ITEM ANALYSIS IN TERMS OF ACTIVITIES SIGNIFICANT IN THEIR OWN RUBRIC, RE-ALLOCATED ACTIVITIES, AND ACTIVITIES PERMITTING MULTIPLE SCORING CODED TO THEIR SITUATION NUMBER IN THE EXPERIMENTAL EDITION

Rubric "i" - Form A

Significant in own rubric: 2i, 8i, 11i, 12i, 19i, 21i, 25i, 33i, 36i, 37i, 40i, 43i, 47i, 50i, 56i, 62i, 70i, 71i.

Re-allocated activities: --

Multiple scoring possibilities: 20j.

Rubric "i" - Form B

Significant in own rubric: 3i, 7i, 9i, 12i, 15i, 20i, 21i, 23i, 38i, 46i, 51i, 55i, 63i, 70i, 74i.

Re-allocated activities: 19j, 37l.

Multiple scoring possibilities: --

Rubric "j" - Form A

Significant in own rubric: 1j, 4j, 17j, 20j, 26j, 35j, 36j, 39j, 55j, 58j, 66j, 71j.

Re-allocated activities: 17p, 71m.

Multiple scoring possibilities: 23n, 27n, 30n.

Rubric "j" - Form B

Significant in own rubric: 3j, 10j, 14j, 15j, 18j, 26j, 29j, 35j, 38j, 40j, 42j, 58j, 62j, 69j.

Re-allocated activities: 35c, 72n.

Multiple scoring possibilities: 1d, 8n, 21n, 24n, 43n, 48e, 55n, 59c, 59d, 61n, 63n, 64f, 72d.

TABLE IX, cont'd

PREDICTIVE ACTIVITIES RESULTING FROM THE ITEM ANALYSIS IN TERMS OF ACTIVITIES SIGNIFICANT IN THEIR OWN RUBRIC, RE-ALLOCATED ACTIVITIES, AND ACTIVITIES PERMITTING MULTIPLE SCORING CODED TO THEIR SITUATION NUMBER IN THE EXPERIMENTAL EDITION

Rubric "k" - Form A

Significant in own rubric: 4k, 17k, 20k, 26k, 31k, 38k, 39k, 42k, 45k, 46k, 49k, 50k, 51k, 72k, 75k.

Re-allocated activities: 39f.

Multiple scoring possibilities: 58m.

Rubric "k" - Form B

Significant in own rubric: 6k, 8k, 11k, 17k, 19k, 27k, 30k, 36k, 44k, 52k, 53k, 56k, 58k, 60k, 71k, 73k.

Re-allocated activities: --

Multiple scoring possibilities: --

Rubric "l" - Form A

Significant in own rubric: 11, 21, 71, 161, 211, 291, 301, 361, 661, 691, 701, 711.

Re-allocated activities: 43p, 53p.

Multiple scoring possibilities: 6o, 48o.

Rubric "l" - Form B

Significant in own rubric: 01, 101, 121, 161, 211, 271, 291, 401, 511, 741, 751.

Re-allocated activities: 46p, 57h, 71f.

Multiple scoring possibilities: 23h, 38j.

TABLE IX, cont'd

PREDICTIVE ACTIVITIES RESULTING FROM THE ITEM ANALYSIS IN TERMS OF ACTIVITIES SIGNIFICANG IN THEIR OWN RUBRIC, RE-ALLOCATED ACTIVITIES, AND ACTIVITIES PERMITTING MULTIPLE SCORING CODED TO THEIR SITUATION NUMBER IN THE EXPERIMENTAL EDITION

Rubric "m" - Form A

Significant in own rubric: 3m, 9m, 24m, 32, 38m, 39m, 42m, 53m, 58m, 59m, 60m, 63m, 72m, 45m.

Re-allocated activities: --

Multiple scoring possibilities: 75k

Rubric "m" - Form B

Significant in own rubric: 7m, 11m, 17, 26m, 28m, 32m, 39m, 50m, 55m, 69m, 73m.

Re-allocated activities: --

Multiple scoring possibilities: --

Rubric "n" - Form A

Significant in own rubric: 2n, 12n, 13n, 21n, 23n, 27n, 28n, 30n, 37n, 44n, 46n, 54n, 64n, 68n, 69n, 73n, 75n.

Re-allocated activities: 13g, 30g, 18e.

Multiple scoring possibilities: 5n, 15d, 16d, 19g, 24d, 31d, 31h, 43d, 51d.

Rubric "n" - Form B

Significant in own rubric: 8n, 21n, 22n, 24n, 25n, 42n, 43n, 49n, 54n, 55n, 63n, 70n.

Re-allocated activities: 72h.

Multiple scoring possibilities: 16h, 23d, 34d, 48d, 51d, 57d, 59c, 59d, 72h.

TABLE IX, cont'd

PREDICTIVE ACTIVITIES RESULTING FROM THE ITEM ANALYSIS IN TERMS OF ACTIVITIES SIGNIFICANT IN THEIR OWN RUBRIC, RE-ALLOCATED ACTIVITIES, AND ACTIVITIES PERMITTING MULTIPLE SCORING CODED TO THEIR SITUATION NUMBER IN THE EXPERIMENTAL EDITION

Rubric "o" - Form A

Significant in own rubric: 6o, 8o, 10o, 15o, 16o, 19o, 26o, 29o, 34o, 36o, 40o, 48o, 56o, 57o, 67o, 74o,

Re-allocated activities: 10c, 34g, 48j, 57c.

Multiple scoring possibilities: --

Rubric "o" - Form B

Significant in own rubric: 5o, 8o, 9o, 10o, 12o, 13o, 15o, 16o, 17o, 19o, 29o, 30o, 37o, 38o, 41o, 48o, 53o, 65o.

Re-allocated activities: --

Multiple scoring possibilities: --

CHAPTER VI

SUMMARY AND CONCLUSIONS

Summary of the Problem

The major objective of this thesis has been to study intensively the interests of adolescents so that more meaning might be attached to them in terms of guidance possibilities.

A careful review of research relevant to this problem plus a detailed analysis of all published means of evaluating interest at the secondary school level pointed up the need for a type of interest measure not currently represented. It was felt that a means of interest appraisal based entirely on the interests of the teen-ager without requiring him to project his thinking into adult areas would be a very necessary addition to the field. Furthermore, if within a single adolescent-centered measure could be found possibilities for guidance educationally, vocationally, and avocationally, a three-fold significance might be attached to the interpretation of the results.

The ACTIVITY PREFERENCE INVENTORY

Development. The major tool of research to fulfill the purpose outlined above was the ACTIVITY PREFERENCE INVENTORY. This instrument was built around a framework of fifteen areas of interest determined subjectively but substantiated by the mature experienced judgment of several graduate students and

workers in the field of measurement. Into this framework were fitted 150 situations common to the average adolescent, and for each situation there were four competing activities or a total of 600 for the entire inventory. These were divided into two forms as nearly equivalent as it was possible to make them before they were tried out. The data sought in the inventory were the pupils' most preferred and least preferred responses to the activities.

Tryout. The experimental edition was administered to a total of 760 high school pupils in grades 9 to 12 inclusive from two communities in Maine and one in Vermont. The results for each pupil were reported to him on an individual profile chart in terms of the implications for educational, vocational, and avocational guidance resident in that particular student's profile.

Statistical Analysis. The statistical treatment of the data began with the computing of the reliability coefficients between forms, 60 of these, since they were done separately by sex and by the order of taking the forms. Inasmuch as each reliability coefficient was based in actuality on a 19-item sub-test, the reliabilities were considered satisfactory.

The intercorrelations of the rubrics were found and the tables of matrices including 210 intercorrelations indicated a relative independence of all 15 of the rubrics. However, one must take into consideration that the forced-choice technique employed in this study would cause many low and negative

correlations.

An analysis of variance by course and grade separately by sex and for each rubric was done. There were few significant F-ratios in the main effects of course and grade, and only two significant interactions of these two variables, thus obviating the need for separate interpretation by course and grade. It must be reported that negative sums occurred in three of the interactions, a factor believed attributable to unequal cell frequencies.

The item analysis resulted in 9000 item discrimination indices based on a sampling of 200 cases. Each of the activities was correlated with the rubric to which it was originally assigned as well as to every other rubric. These correlations were studied and classified into three groups: those significant in their own rubric; those not significant in their own rubric but statistically and logically significant in another rubric to which they were transferred; and those not only significant in their own rubric but in one or more of the other rubrics, hence justifying multiple scoring possibilities.

Validity. Although no comparison with the usual expected external criterion was possible, the rubric scores were compared with the manifest interests of the experimental population and showed substantial agreement. The content of the items reflects satisfactory face validity and the inventory measures that which it is purported to measure.

Norms. Since the experimental edition as such will never be used again, no norms were set up. The individual profile, since there were truly no right or wrong answers en masse, served as the norm for any particular individual.

Limitations of the Study

The writer recognizes at least four limitations to the present study.

The use of the strength mark could not be as fully investigated as had been hoped. Its use in the fifth answer space of the standard IBM answer sheet posed a machine scoring problem which to date has not been solved, namely, that the recording in that space is common to any and all of the other four spaces and cannot be registered solely with the response which it was meant to intensify.

It is felt that the use of the forced-choice technique affected many of the statistical results, especially the rubric intercorrelations and the item discrimination indices. This "closed circuit" situation may not give as valid results, perhaps, as would unpressured choices.

Any comparison of intelligence and separate rubric scores was impossible due to the lack of comparability among the data already available, and also because it was not possible, administratively, to give an intelligence test concurrently with the ACTIVITY PREFERENCE INVENTORY.

At this stage of development, the instrument is ready to turn over to the publisher who will participate actively in

the planning the collection and analysis of data leading to the establishment of norms, thus removing this phase from the province of this study. Hence, this dissertation was delimited to those phases connected with the actual construction and tryout of the experimental edition.

Suggestions for Further Study

Continuous research with this instrument is planned. This will include refinement of the existing scoring keys and revision of the experimental edition.

It might be helpful to administer the test in two forms to the same population, one form being taken in a forced-choice situation, the other, as an "open end" form where the student would express his choice along a continuum. In this type of experiment one might find out whether or not the forced-choice procedure does have any affect on the statistical results.

The strength mark feature has untapped possibilities. It would seem to have implications as a personality measure. An investigation of the scores of those who have extreme likes and dislikes holds promise of valuable knowledge concerning those who so register their intensity.

While the analysis suggests little relationship between intelligence and rubric scores in that course and grade appear to have no appreciable amount of significance, it would nevertheless be interesting to study this element since the literature gives scant valid data on this phase of interest

measurement.

Conclusions

The writer offers the ACTIVITY PREFERENCE INVENTORY with its attendant statistical analysis resulting from the experimental tryout as the beginning of a new instrument in the field of interest testing. It is hoped that this measure embodying guidance possibilities educationally, vocationally, and avocationally on a strictly adolescent level may provide a sound and welcome addition to the already existing evaluative techniques for interest appraisal. In this way a deeper significance perhaps may be attached to the interest patterns of adolescence and more valuable knowledge will be forthcoming concerning the stability of these patterns.

APPENDIX A

ITEM DISCRIMINATION INDICES IN TERMS OF ACTIVITY-RUBRIC INTERCORRELATIONS BY SITUATIONS FOR FORM A

SITUATION		ACTIVITY-RUBRIC INTERCORRELATIONS *														
		a	b	c	d	e	f	g	h	i	j	k	l	m	n	o
1.	h.	07	-16	00	10	05	-15	13	39	10	-15	00	02	03	-20	10
	j.	12	-15	12	01	09	00	03	-25	05	37	00	-32	05	25	05
	b.	11	16	09	08	08	04	03	03	04	-15	11	15	08	11	08
	l.	09	18	04	04	13	20	08	11	11	11	11	23	01	04	03
2.	j.	09	06	07	-16	15	10	01	03	07	04	09	07	07	13	06
	i.	09	12	08	11	-20	18	06	05	28	08	17	17	01	03	03
	l.	18	04	08	04	09	11	02	13	-19	06	06	18	08	-18	11
	n.	-18	10	09	32	04	-18	07	04	-16	09	02	-26	02	27	07
3.	e.	06	-22	08	06	44	-20	02	04	10	10	10	06	-17	02	08
	m.	-17	05	11	03	-31	15	11	00	18	01	11	01	22	01	14
	f.	06	13	15	02	13	08	03	00	03	08	08	02	08	15	02
	b.	04	36	14	04	10	01	05	05	10	-17	07	04	08	14	05
4.	f.	17	24	08	04	-21	34	11	13	20	-39	01	31	03	-25	00
	j.	06	14	04	10	04	-20	09	06	13	26	07	-17	09	09	16
	e.	07	05	02	12	23	05	05	07	05	12	-20	02	-18	10	13
	k.	05	05	05	04	05	09	02	01	-16	04	24	-15	05	08	05
5.	h.	03	11	11	00	00	07	21	49	14	-22	-17	07	03	-28	03
	i.	01	07	07	01	04	12	01	11	17	02	02	04	04	11	01
	l.	09	09	03	08	06	06	-16	-23	14	00	19	16	12	01	-16
	p.	05	03	07	07	09	-15	07	-18	13	19	02	-23	11	17	17
6.	p.	03	08	14	00	00	02	02	10	10	-22	02	15	03	-20	08
	a.	10	04	04	04	04	06	12	08	03	01	06	10	04	01	15
	c.	-18	-23	-15	09	03	-20	09	00	07	20	04	-28	04	18	28
	b.	09	17	01	09	09	17	03	03	05	01	01	09	07	01	11
7.	l.	13	13	07	09	12	01	05	13	12	-27	12	29	02	-16	09
	b.	12	01	04	08	-22	12	04	10	12	01	04	03	17	04	01
	e.	11	15	00	03	44	08	01	14	-21	21	11	-23	-20	12	06
	f.	-19	04	04	02	-17	23	00	09	00	08	06	04	04	09	02
8.	h.	05	-16	13	04	18	12	06	29	12	01	05	11	06	05	09
	i.	00	05	06	13	05	05	01	01	31	01	08	09	05	05	19
	o.	02	05	08	10	08	06	05	-19	-16	02	02	13	11	06	34
	l.	01	16	00	06	07	10	10	-15	03	00	00	13	01	04	03
9.	f.	-15	07	14	13	08	13	02	02	04	17	04	11	13	23	02
	m.	08	14	-17	14	14	04	07	08	14	04	10	10	36	01	21
	c.	20	01	25	07	00	00	01	04	04	-16	06	07	-20	-19	-22
	e.	03	04	06	10	22	09	03	01	-15	04	07	06	03	03	01

* Decimal points have been omitted before correlations.

Only the significant negative correlations are signed.

ITEM DISCRIMINATION INDICES IN TERMS OF ACTIVITY-RUBRIC INTERCORRELATIONS BY SITUATIONS FOR FORM A

SITUATION		ACTIVITY-RUBRIC INTERCORRELATIONS														
		a	b	c	d	e	f	g	h	i	j	k	l	m	n	o
10.	d.	11	14	05	21	05	05	01	06	05	17	05	-17	03	06	14
	k.	02	08	06	01	11	-24	01	02	02	02	09	11	04	11	01
	o.	06	15	01	12	07	16	03	09	10	09	-16	12	10	07	36
	c.	01	04	12	09	07	01	04	06	04	10	03	14	03	09	-22
11.	i.	02	20	02	13	04	09	02	02	25	04	02	11	11	02	07
	p.	14	10	07	05	05	08	02	16	08	16	02	-16	05	10	02
	h.	14	04	-19	19	06	09	04	09	09	01	09	09	04	06	01
	c.	27	01	24	-15	15	01	04	-16	01	12	12	16	02	05	04
12.	i.	06	10	03	-21	05	02	03	03	31	14	10	06	06	-23	02
	a.	26	14	20	-23	07	03	01	00	01	-26	-26	30	11	-24	09
	f.	02	04	02	02	02	04	13	07	11	-15	02	07	07	04	02
	n.	-31	-18	-22	38	09	04	05	05	-16	27	19	-30	00	40	09
13.	g.	04	11	05	09	04	04	12	03	11	11	12	14	04	-22	19
	b.	16	26	09	18	01	03	03	10	12	-20	01	16	10	-22	01
	m.	-20	-23	12	13	03	07	03	02	-18	13	00	-18	10	16	03
	n.	02	10	07	11	06	07	-18	09	05	14	11	10	11	23	-21
14.	b.	13	01	07	05	05	01	04	02	12	15	08	12	13	27	12
	g.	09	-20	09	09	17	-35	25	03	-22	07	13	-15	00	00	01
	o.	00	03	01	01	01	08	-20	08	17	06	09	05	01	01	08
	f.	20	16	01	-15	11	27	01	07	16	-26	11	20	14	-23	-18
15.	d.	-29	10	11	61	07	01	01	05	-31	16	02	-31	02	31	10
	h.	03	07	15	-24	03	-15	09	24	19	-19	11	22	05	-22	11
	a.	51	14	06	-40	08	11	14	06	17	-17	05	31	11	-23	-29
	o.	-21	11	04	02	02	01	08	08	02	16	11	-19	11	09	29
16.	o.	03	02	14	03	14	07	02	-21	05	14	03	14	09	05	29
	d.	-17	-18	12	50	01	10	04	06	-17	15	15	-33	09	36	06
	l.	12	24	06	-35	14	07	01	09	27	14	06	33	12	-24	-16
	c.	02	04	22	00	00	04	06	10	06	-18	08	16	06	10	08
17	p.	12	14	11	14	01	06	03	11	14	-29	12	25	08	-20	01
	f.	01	15	02	03	01	30	03	15	05	09	08	08	12	08	12
	k.	05	11	08	01	08	-18	04	12	06	08	37	06	05	01	01
	j.	-15	-15	00	16	08	-18	04	12	14	27	-16	-23	00	26	10
18.	j.	-19	14	-15	15	-25	06	05	06	01	08	10	05	03	12	03
	a.	33	07	06	13	30	10	10	04	10	01	01	01	12	12	06
	g.	03	05	34	01	17	06	09	12	01	-20	-17	17	01	-15	01
	e.	-16	09	-16	01	08	01	06	14	09	12	11	12	12	19	06

ITEM DISCRIMINATION INDICES IN TERMS OF ACTIVITY-RUBRIC INTERCORRELATIONS BY SITUATIONS FOR FORM A

SITUATION		ACTIVITY-RUBRIC INTERCORRELATIONS														
		a	b	c	d	e	f	g	h	i	j	k	l	m	n	o
19.	g.	-27	-22	02	48	01	09	09	03	-28	17	01	-31	09	25	02
	l.	15	01	09	-15	06	01	06	07	04	-17	01	17	07	-18	10
	o.	04	05	04	13	02	01	07	01	08	10	07	02	08	13	19
	i.	09	19	08	-23	08	11	07	09	23	05	07	19	07	03	11
20.	k.	05	12	12	-25	-21	05	08	02	27	-15	21	07	10	07	02
	j.	-25	-28	12	22	02	12	02	06	-20	43	03	-40	07	32	09
	a.	23	14	23	00	15	06	05	05	03	-32	-16	26	11	-30	05
	e.	04	04	02	01	06	01	06	-18	01	04	06	09	06	06	03
21.	n.	-22	04	-15	24	02	21	08	04	-21	13	01	-25	01	34	04
	d.	04	05	02	27	11	07	04	-15	-18	10	04	-24	05	05	01
	i.	00	15	09	-23	-23	15	11	06	45	-15	09	17	06	-25	06
	l.	19	01	01	-26	09	12	01	05	06	08	12	32	00	-15	01
22.	e.	13	02	08	06	30	06	08	-24	06	11	05	00	05	00	08
	c.	06	-15	22	03	04	11	04	10	01	-16	10	08	13	13	10
	m.	13	08	10	07	-15	14	24	17	01	01	02	-15	17	04	23
	b.	05	22	-20	02	10	12	-24	03	05	03	12	10	02	08	08
23	f.	04	11	01	00	14	23	04	08	10	-21	10	17	07	-20	01
	k.	04	11	04	07	00	11	11	00	14	05	02	04	05	07	11
	n.	01	01	14	09	00	08	-23	17	04	18	00	12	15	20	11
	d.	04	06	11	06	14	11	09	07	04	01	12	11	04	04	01
24.	c.	18	16	45	14	03	03	07	03	09	-21	-26	10	14	-24	05
	p.	09	04	04	-26	02	10	07	06	21	04	07	06	06	-15	04
	m.	12	13	-26	08	07	08	03	02	13	15	12	00	28	15	12
	d.	-16	05	13	48	07	05	04	04	-16	09	05	-15	09	23	10
25.	b.	11	40	-17	11	06	06	-20	08	08	05	05	17	09	06	00
	g.	14	14	-17	12	05	03	36	02	-18	07	03	-18	13	18	02
	i.	05	-21	-17	05	09	10	-19	12	23	03	14	02	02	02	07
	c.	09	05	46	05	08	10	03	05	06	-15	10	06	03	-16	03
26.	o.	10	16	06	06	05	05	09	13	06	-25	03	09	05	14	20
	a.	46	20	20	-24	05	07	-16	01	07	-25	-20	26	05	-16	-33
	j.	-25	-24	-27	21	05	-15	07	05	-19	48	00	-25	08	19	24
	k.	-15	11	03	09	09	05	01	08	08	01	26	11	01	11	09
27.	g.	07	04	06	-15	22	10	18	12	03	10	-18	03	06	-24	10
	f.	08	22	04	12	-15	39	14	07	10	14	14	26	01	-24	-15
	k.	11	02	02	02	12	12	01	09	14	06	17	02	02	02	02
	n.	12	-23	10	21	05	-17	01	10	-22	26	12	-25	05	40	08

ITEM DISCRIMINATION INDICES IN TERMS OF ACTIVITY-RUBRIC INTERCORRELATIONS BY SITUATIONS FOR FORM A

SITUATION		ACTIVITY-RUBRIC INTERCORRELATIONS														
		a	b	c	d	e	f	g	h	i	j	k	l	m	n	o
28.	d.	01	00	01	21	03	03	07	09	10	06	06	-18	03	06	01
	h.	02	09	13	09	14	18	09	39	09	-23	03	19	02	-27	13
	j.	02	04	06	12	04	06	06	-20	09	14	07	01	06	01	06
	n.	00	07	08	02	10	13	13	-18	00	08	03	05	05	28	08
29.	l.	17	12	10	-28	07	10	03	06	15	10	13	28	06	10	08
	p.	01	06	07	04	13	02	04	18	06	14	02	14	06	-18	-16
	f.	-16	07	08	11	08	16	04	05	-16	11	01	-17	10	10	-16
	o.	03	08	11	08	08	06	11	-19	03	11	06	-22	01	01	45
30.	n.	09	10	03	21	01	07	10	-16	-18	25	07	-24	05	39	14
	l.	07	10	05	-17	12	09	05	09	09	14	02	26	00	10	03
	d.	03	05	03	16	05	02	03	11	02	02	05	02	06	10	08
	g.	07	07	02	-23	14	01	13	08	14	14	05	05	11	-24	05
31.	c.	15	10	31	-33	06	03	03	03	03	-20	-19	13	04	13	08
	k.	05	05	-20	07	07	02	05	-22	07	29	24	09	04	11	05
	d.	-21	02	10	52	08	03	00	06	-21	13	06	-21	03	21	06
	h.	13	03	01	-39	04	04	08	30	13	-21	03	18	04	-20	04
32.	m.	00	06	00	03	-21	09	-17	06	14	05	14	02	19	13	02
	e.	19	10	01	05	45	-18	14	06	05	11	05	08	09	05	02
	f.	12	10	-16	04	-25	26	01	03	07	01	04	10	07	06	03
	g.	09	05	18	14	09	-15	32	11	-15	11	12	00	14	12	05
33.	h.	-24	-17	11	15	02	01	11	42	-24	04	07	06	01	04	01
	c.	08	-20	05	04	08	-19	10	05	11	13	01	13	05	05	04
	i.	11	18	01	-15	11	20	-15	09	28	15	01	13	03	09	05
	a.	26	25	07	08	02	05	10	-31	16	02	07	10	02	08	07
34.	g.	05	04	11	09	04	14	06	05	11	05	01	08	-18	01	-24
	o.	15	13	02	27	05	01	05	10	02	-16	12	12	05	12	26
	m.	10	08	01	07	16	14	07	04	07	13	01	10	13	01	04
	d.	13	01	13	31	07	01	08	01	07	08	11	10	01	13	04
35.	l.	09	02	01	11	11	12	02	14	02	04	04	11	00	06	11
	h.	-20	02	02	04	-17	04	04	39	13	10	02	13	02	11	02
	a.	35	01	04	06	09	07	00	07	03	09	12	01	00	04	04
	j.	07	05	02	20	17	01	01	17	11	22	05	-23	08	20	11
36.	l.	11	16	22	-15	00	22	09	18	06	-43	-16	40	13	-25	13
	j.	-25	-26	-17	26	01	14	08	-22	08	55	16	-43	06	42	05
	o.	09	13	07	09	05	07	11	01	07	05	03	13	13	01	33
	i.	29	30	03	-25	02	02	07	08	24	-25	07	27	03	-30	-18

ITEM DISCRIMINATION INDICES IN TERMS OF ACTIVITY-RUBRIC INTERCORRELATIONS BY SITUATIONS FOR FORM A

SITUATION		ACTIVITY-RUBRIC INTERCORRELATIONS														
		a	b	c	d	e	f	g	h	i	j	k	l	m	n	o
37.	n.	-19	09	-16	28	05	11	01	08	-25	16	01	-20	03	41	00
	i.	02	00	08	06	04	08	06	15	21	-19	02	15	10	-25	12
	p.	08	06	06	08	11	13	11	10	02	10	04	06	08	-25	06
	e.	18	06	06	-21	12	08	08	16	08	10	08	04	14	00	18
38.	e.	00	00	10	00	31	07	10	08	08	06	05	07	08	03	05
	m.	-18	17	07	-18	-15	01	01	01	06	-15	14	06	22	12	10
	k.	15	05	-26	05	-17	21	-26	03	25	04	30	04	01	05	05
	g.	05	10	14	11	02	-17	43	13	-25	03	-17	02	13	02	02
39.	f.	01	00	22	-17	03	07	20	09	03	-22	-22	13	-17	14	04
	m.	05	06	13	03	10	-18	10	03	06	-16	-21	03	20	02	11
	k.	17	11	01	03	06	18	11	03	06	09	36	06	08	-15	12
	j.	-17	-15	-30	21	11	08	-17	03	08	42	05	-20	07	28	03
40.	a.	28	04	15	-15	37	-17	07	02	09	05	13	02	-18	-17	10
	o.	09	11	06	11	08	01	05	11	12	05	00	09	05	09	46
	i.	11	00	04	04	-16	12	08	07	29	04	08	03	03	04	-26
	f.	05	13	03	01	09	26	10	01	10	05	03	03	09	10	06
41.	n.	22	-18	03	-22	07	03	10	02	07	03	08	00	02	07	08
	e.	20	02	08	-29	34	03	10	08	06	11	11	10	-20	-20	08
	d.	-31	04	13	51	-20	05	01	08	-24	08	12	-20	12	13	13
	b.	03	25	03	-18	-16	07	02	-20	16	00	05	15	03	03	00
42a.	e.	18	07	22	01	41	01	01	04	02	09	-19	02	-30	09	07
	a.	05	02	10	08	08	00	13	13	06	-17	14	03	-24	06	14
	m.	-16	02	11	06	-25	14	05	11	01	08	04	05	45	09	18
	k.	04	03	-18	01	-19	12	07	04	08	15	26	05	04	04	01
43a.	h.	-15	06	01	04	04	03	10	45	08	-17	03	13	03	-27	10
	d.	-20	06	12	40	08	05	01	11	-22	22	08	22	03	36	06
	p.	13	10	12	-25	04	03	09	-15	09	13	04	28	06	18	07
	i.	19	01	02	10	04	06	02	14	20	07	10	07	01	07	06
44.	a.	24	01	12	-15	18	09	01	09	01	05	05	03	11	14	01
	h.	-17	06	06	13	-17	06	12	26	04	12	04	06	18	07	06
	n.	13	07	-15	01	04	10	-17	-25	06	31	20	13	04	37	06
	c.	02	01	36	01	02	07	09	12	01	-28	-22	06	02	-20	01
45	k.	14	-19	-29	12	-19	04	-18	05	11	28	27	-17	18	22	06
	f.	22	23	06	12	13	41	12	04	04	10	01	12	-25	-15	06
	c.	10	13	29	13	02	04	07	01	04	-17	-17	10	07	13	05
	g.	-16	11	06	11	04	-33	35	10	-18	01	11	04	00	04	07

ITEM DISCRIMINATION INDICES IN TERMS OF ACTIVITY-RUBRIC INTERCORRELATIONS BY SITUATIONS FOR FORM A

SITUATION		ACTIVITY-RUBRIC INTERCORRELATIONS														
		a	b	c	d	e	f	g	h	i	j	k	l	m	n	o
46.	n.	17	00	14	01	05	14	04	07	08	07	14	02	05	21	10
	k.	-19	12	-22	16	07	04	07	04	01	12	27	-15	00	07	04
	f.	08	25	00	-17	05	45	-17	10	12	14	03	26	14	-17	13
	g.	11	-16	04	02	08	-33	31	14	07	02	-16	13	11	10	20
47	h.	12	10	10	03	03	06	01	29	06	05	05	05	01	01	06
	i.	09	08	00	05	05	06	11	08	26	03	15	06	03	11	12
	m.	02	05	07	14	07	05	09	07	09	02	04	11	16	04	07
	d.	01	02	04	16	04	04	04	11	14	01	09	12	12	16	12
48.	a.	41	01	00	13	09	09	01	00	01	04	04	15	09	01	-16
	o.	-22	09	01	16	04	07	01	-20	10	10	01	-23	19	14	44
	h.	16	00	02	03	00	05	06	16	06	03	03	05	08	02	13
	p.	07	08	02	05	05	04	08	05	-35	02	01	15	02	12	-18
49.	a.	53	00	01	11	18	07	-15	04	03	01	09	01	-15	11	-17
	k.	-28	04	-22	21	-22	04	-17	05	02	15	41	-19	09	08	01
	p.	02	06	04	02	02	06	13	01	02	06	11	13	04	02	01
	c.	-23	10	27	07	01	10	19	09	07	07	-22	04	03	06	16
50.	k.	09	02	13	09	00	00	02	02	02	00	40	13	00	02	07
	i.	03	00	12	10	05	02	12	03	30	13	07	10	02	08	-17
	g.	09	-38	07	18	03	09	18	00	-22	12	07	-22	06	07	13
	b.	19	36	28	-17	12	08	05	05	02	-21	-38	24	03	-15	06
51.	o.	01	01	04	05	10	05	09	02	09	04	04	02	17	09	13
	b.	15	48	15	-29	03	08	09	01	12	-18	-15	40	01	-20	14
	k.	06	-17	12	11	00	15	03	01	19	01	26	00	06	11	09
	d.	-19	29	05	44	07	-17	02	02	-22	20	07	-41	11	38	10
52.	j.	15	05	12	12	02	05	08	10	05	07	02	02	00	-17	08
	n.	-26	02	10	19	10	07	05	07	09	03	00	09	05	17	07
	f.	03	15	08	11	-26	18	04	04	06	-16	01	25	13	-15	08
	e.	06	08	09	05	25	06	01	-20	03	25	03	-17	-16	12	08
53.	m.	13	01	-26	01	10	03	09	07	02	14	11	09	26	10	05
	c.	25	06	37	01	14	-28	01	06	03	-28	-22	15	-21	-18	14
	l.	07	12	07	-20	07	07	-18	03	12	08	08	17	07	02	03
	p.	-17	-17	05	18	02	10	05	05	11	21	04	-21	13	07	07
54.	e.	00	06	02	08	26	04	04	08	12	04	04	-20	-18	02	06
	n.	09	12	01	01	07	02	04	-26	09	10	04	13	17	18	02
	b.	05	36	01	-21	12	03	12	14	25	08	10	16	05	-21	08
	h.	13	-33	02	08	05	03	16	43	-17	08	08	09	06	05	08

ITEM DISCRIMINATION INDICES IN TERMS OF ACTIVITY-RUBRIC INTERCORRELATIONS BY SITUATIONS FOR FORM A

SITUATION		ACTIVITY-RUBRIC INTERCORRELATIONS														
		a	b	c	d	e	f	g	h	i	j	k	l	m	n	o
55.	b.	10	33	04	-17	06	15	07	02	07	-15	12	15	10	09	04
	j.	02	-29	-19	14	07	14	02	11	13	35	04	-29	01	14	02
	m.	04	00	20	06	03	11	01	07	01	13	03	09	16	04	07
	o.	00	02	06	05	-16	13	03	06	05	08	11	06	08	02	10
56.	i.	-16	06	11	05	-21	13	02	03	31	00	10	00	00	02	02
	a.	40	09	00	13	01	25	10	00	10	04	13	18	09	01	-18
	e.	08	01	13	03	38	-21	01	05	03	03	01	07	01	09	-16
	o.	-17	04	04	15	-23	14	12	02	-15	01	06	10	10	10	41
57.	o.	-29	11	08	12	-17	04	04	06	06	12	01	08	14	17	32
	a.	34	06	08	01	00	01	06	13	11	04	04	07	00	01	03
	e.	02	02	-15	06	20	02	06	04	04	09	01	12	07	07	12
	c.	07	07	13	04	02	04	05	12	15	-16	02	12	07	09	-18
58.	k.	06	03	08	05	13	02	06	13	05	13	05	08	05	02	00
	f.	15	02	10	01	07	43	06	02	04	10	17	10	-15	-15	02
	j.	07	09	14	09	17	-19	02	09	07	27	05	-15	14	09	05
	m.	01	07	15	13	04	-23	02	02	07	02	-26	04	32	05	07
59.	m.	-21	11	11	07	-22	08	-15	04	01	21	09	09	37	15	14
	c.	13	10	16	05	02	05	01	01	02	06	06	03	12	12	-19
	e.	11	02	08	00	36	00	03	02	05	02	10	03	-21	00	02
	g.	01	01	12	01	05	12	16	03	03	11	05	08	05	03	07
60.	m.	-17	-29	14	13	05	-20	02	13	13	13	17	-18	25	16	05
	j.	00	06	03	01	10	04	13	00	06	13	10	00	01	01	01
	b.	11	25	20	09	02	14	-19	01	-09	-19	12	20	11	01	06
	g.	04	03	00	04	03	12	26	12	00	10	03	01	15	14	01
61.	g.	-21	-22	10	19	12	03	25	06	07	09	07	00	04	10	04
	p.	09	07	06	07	06	07	07	02	10	09	06	09	06	02	07
	b.	07	39	05	-17	-19	05	-17	00	07	07	07	20	12	-19	03
	a.	23	06	13	12	24	01	04	04	09	07	07	10	12	04	01
62.	i.	05	07	03	08	12	05	10	-32	28	10	02	02	03	13	02
	h.	01	12	05	09	14	04	12	33	-27	-15	04	01	02	05	07
	p.	12	-20	01	06	01	05	06	09	08	12	06	09	13	03	01
	b.	06	33	09	08	06	06	08	-18	09	04	06	11	13	08	06
63.	g.	-16	06	01	20	01	01	17	01	13	03	02	05	09	09	09
	f.	00	05	11	05	08	06	08	13	13	10	24	03	05	02	02
	m.	08	13	03	03	07	13	07	10	12	05	02	13	23	02	12
	j.	18	20	11	-17	00	06	-15	03	11	00	-20	17	06	08	-16

ITEM DISCRIMINATION INDICES IN TERMS OF ACTIVITY-RUBRIC INTERCORRELATIONS BY SITUATIONS FOR FORM A

SITUATION	ACTIVITY-RUBRIC INTERCORRELATIONS	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o
64.	i.	-29	10	03	03	-15	12	03	01	12	03	06	03	01	04	04
	l.	07	06	02	14	02	04	06	01	06	06	01	17	06	-16	09
	a.	49	01	02	-17	17	04	02	07	01	14	14	12	07	-15	-15
	n.	-32	13	02	27	05	02	01	07	-16	16	07	-26	01	26	10
65.	c.	12	24	26	10	05	10	01	13	12	-42	06	35	08	-27	13
	g.	08	01	16	09	04	03	28	11	09	01	08	09	03	01	11
	e.	02	-21	05	02	47	-19	04	01	-16	21	10	-22	04	08	01
	p.	03	06	-33	01	-34	09	-26	03	11	25	22	08	09	19	03
66.	b.	07	15	18	02	10	26	10	10	15	-21	20	10	06	07	12
	d.	21	02	39	00	08	-19	04	01	02	-24	-20	01	05	-21	02
	l.	05	01	11	11	-17	09	05	06	03	06	06	25	17	01	09
	j.	16	-17	-17	14	16	10	01	05	13	39	01	-32	05	31	05
67.	o.	04	06	00	13	07	07	02	06	02	04	07	06	06	06	22
	h.	01	03	07	11	09	01	05	09	05	05	03	01	-15	03	-26
	a.	10	12	10	-17	08	08	00	-22	08	00	03	10	07	00	10
	d.	06	12	04	20	06	13	02	07	06	07	12	-15	13	07	09
68.	j.	13	03	13	04	-17	01	10	06	14	13	14	03	01	14	03
	h.	01	09	10	-22	01	10	02	35	15	23	07	19	09	-33	04
	d.	08	03	11	24	00	03	01	07	-22	01	01	-15	03	08	03
	n.	03	09	07	10	16	07	07	-19	06	09	07	03	03	25	01
69.	n.	07	14	03	21	11	05	00	10	-17	12	01	14	05	39	01
	h.	01	00	10	-35	06	01	07	39	-22	22	00	13	00	-34	09
	d.	06	04	13	20	02	09	04	07	06	18	06	-25	02	07	04
	l.	11	11	01	05	04	04	04	-22	01	08	04	24	08	14	14
70.	l.	05	05	08	05	-15	03	03	07	02	-20	00	37	03	10	05
	i.	05	02	09	02	07	-17	02	05	21	03	03	-17	12	02	12
	b.	08	10	04	10	-29	18	04	08	04	02	10	02	02	02	02
	e.	07	12	03	00	45	02	05	08	-22	18	12	-22	13	10	05
71.	l.	29	16	24	-25	03	06	10	03	03	24	08	35	10	-16	11
	j.	-17	-26	-31	25	02	14	11	-17	-17	51	05	-45	04	37	14
	m.	05	10	12	05	05	02	03	08	03	-20	02	02	15	03	12
	i.	04	27	04	13	10	13	01	16	27	-21	01	21	10	-27	-18
72.	c.	21	05	13	03	09	11	15	01	13	09	-21	02	11	09	07
	m.	14	07	04	05	08	02	05	08	02	01	11	01	30	07	10
	b.	07	28	10	07	01	07	-22	-16	12	07	13	08	05	01	07
	k.	01	-15	-23	08	02	08	09	08	05	03	20	05	-20	02	05

ITEM DISCRIMINATION INDICES IN TERMS OF ACTIVITY-RUBRIC INTERCORRELATIONS BY SITUATIONS FOR FORM A

SITUATION		ACTIVITY-RUBRIC INTERCORRELATIONS														
		a	b	c	d	e	f	g	h	i	j	k	l	m	n	o
73.	n.	11	04	07	08	07	08	01	17	08	04	22	01	10	20	-17
	d.	15	02	13	21	00	11	05	03	08	08	00	08	07	02	00
	h.	04	08	07	-25	08	04	08	21	07	07	-19	04	13	07	04
	c.	04	13	11	01	01	01	03	06	06	04	03	03	09	14	13
74.	o.	12	13	01	12	01	09	10	06	09	03	01	09	18	04	28
	f.	05	06	08	00	13	00	11	01	11	11	08	-17	08	-03	01
	a.	23	10	09	04	06	06	-17	01	18	07	02	10	-18	14	-25
	l.	08	11	01	08	-16	03	05	05	01	06	03	16	06	01	08
75..	c.	06	00	52	08	06	06	09	02	13	-20	-34	09	13	12	06
	n.	02	05	-19	08	05	06	03	02	00	05	10	05	08	21	02
	g.	01	-19	-19	03	06	11	22	04	06	17	01	10	11	01	11
	k.	05	09	-29	04	08	-11	-25	02	21	06	46	01	18	05	04

ITEM DISCRIMINATION INDICES IN TERMS OF ACTIVITY-RUBRIC INTERCORRELATIONS BY SITUATIONS FOR FORM B

SITUATION		ACTIVITY-RUBRIC INTERCORRELATIONS														
		a	b	c	d	e	f	g	h	i	j	k	l	m	n	o
1.	c.	20	01	45	09	02	05	04	11	11	12	05	15	09	-20	12
	n.	06	05	11	03	11	08	-17	01	11	08	03	09	03	09	-19
	d.	04	13	-21	24	17	08	07	02	-23	32	01	-29	08	26	14
	g.	12	06	14	12	09	06	28	12	01	12	01	05	05	-16	17
2.	f.	-19	13	03	08	-25	14	05	09	05	05	01	03	17	01	01
	c.	-21	11	18	11	11	04	16	07	04	07	08	04	01	00	17
	e.	01	13	07	13	50	-27	02	03	-18	17	02	-22	03	01	06
	a.	36	13	07	-17	-17	18	13	12	18	14	12	16	10	02	-24
3.	i.	18	07	03	-23	14	03	02	07	26	-18	02	18	03	-18	-16
	b.	07	39	02	07	-20	07	06	04	12	-25	02	20	01	10	06
	d.	-24	-27	01	36	05	06	05	15	-24	03	03	-20	06	16	01
	j.	04	-20	04	14	25	03	01	-25	07	33	03	12	04	07	07
4.	b.	04	12	08	13	03	06	01	06	08	06	03	12	06	04	04
	p.	11	04	09	14	11	00	05	07	09	02	07	09	05	11	05
	l.	06	01	02	11	01	01	06	02	04	09	02	16	02	02	09
	j.	08	10	14	-15	12	05	08	12	05	05	08	03	00	03	10
5.	e.	02	10	10	05	22	08	06	08	01	09	02	08	10	01	-16
	f.	10	08	06	05	03	11	-19	-18	06	06	05	02	02	11	-16
	l.	07	12	01	10	04	13	15	05	05	12	01	17	02	-15	01
	o.	13	07	05	09	-15	13	09	18	00	04	01	08	07	04	28
6.	m.	05	02	02	04	08	14	04	07	07	08	05	05	14	05	07
	g.	05	09	05	05	09	-21	31	16	14	05	11	12	04	01	01
	k.	02	12	-15	04	04	08	11	01	01	01	32	05	02	11	12
	f.	11	22	11	05	02	25	-15	09	06	11	-15	13	07	05	05
7.	p.	03	01	03	09	19	01	09	00	06	01	01	06	01	08	01
	i.	17	17	05	06	-17	13	-17	06	41	14	09	08	-16	02	13
	m.	13	-18	09	15	00	-17	04	08	13	22	02	-28	23	18	18
	l.	05	06	09	-16	01	09	12	15	-17	10	09	30	10	12	08
8.	o.	12	01	09	05	03	08	03	08	05	12	11	14	03	01	40
	k.	-18	12	09	01	-19	01	10	10	12	13	28	10	16	07	00
	a.	52	16	18	-35	05	06	08	01	15	-18	11	18	12	-19	-28
	n.	24	04	00	37	11	01	01	01	-21	18	06	14	07	24	10
9.	i.	06	12	02	02	02	09	01	07	31	09	04	06	07	-21	06
	o.	05	08	08	10	05	07	01	-19	05	10	13	13	05	02	28
	l.	07	07	10	01	07	09	02	01	10	10	07	09	14	28	-19
	p.	04	11	18	05	14	07	02	11	14	11	-16	01	11	08	05

ITEM DISCRIMINATION INDICES IN TERMS OF ACTIVITY-RUBRIC INTERCORRELATIONS BY SITUATIONS FOR FORM B

SITUATION		ACTIVITY-RUBRIC INTERCORRELATIONS														
		a	b	c	d	e	f	g	h	i	j	k	l	m	n	o
10.	o.	13	13	18	08	06	02	02	05	13	-24	10	02	14	08	27
	l.	04	19	02	16	-21	00	02	16	21	14	05	27	02	02	-18
	j.	-15	-18	-28	15	16	04	03	04	-16	35	10	-29	00	15	10
	a.	29	11	12	08	09	03	06	12	09	01	05	08	11	06	-21
11.	m.	01	06	00	05	14	01	01	05	03	11	12	08	18	08	03
	c.	03	08	35	04	10	12	25	03	06	14	-18	01	04	03	15
	k.	-17	04	-27	14	-28	13	-18	00	16	14	42	03	03	04	07
	e.	16	07	08	01	49	01	05	01	07	09	12	03	-23	01	11
12.	i.	03	06	12	-18	06	10	14	09	35	10	14	01	03	10	00
	p.	-17	07	04	11	03	-16	03	24	11	01	07	13	00	12	-21
	⊙.	03	03	09	01	06	06	01	-29	12	09	14	08	00	05	22
	l.	13	01	18	04	04	02	15	11	10	-21	-18	22	05	10	02
13.	e.	04	00	10	00	31	-24	14	07	14	00	10	08	08	08	-22
	⊙.	01	04	03	04	-15	01	12	08	01	03	01	01	04	01	22
	m.	14	05	03	03	09	06	06	12	15	06	08	00	14	06	06
	f.	08	08	07	06	-16	33	01	03	01	08	08	10	00	04	13
14.	e.	09	05	24	04	38	01	05	07	09	01	01	01	07	01	04
	j.	-17	-15	-33	15	10	08	14	12	10	49	04	-33	14	36	10
	b.	03	39	11	11	-27	13	04	08	27	-16	15	23	08	-15	03
	c.	07	11	53	01	02	04	10	10	05	-29	14	11	11	-20	02
15.	l.	07	01	27	04	00	05	11	08	08	-30	09	12	04	14	-15
	o.	01	01	04	06	06	04	13	08	-15	04	-15	01	10	04	26
	j.	09	-15	-27	12	08	00	12	05	-19	46	09	-32	01	25	09
	i.	04	16	04	-22	14	02	10	04	43	14	13	23	02	10	-16
16.	h.	-20	13	14	38	07	14	03	12	-17	19	06	-32	03	20	09
	l.	01	12	07	-22	09	15	03	18	18	-25	00	39	00	-27	-22
	a.	34	04	01	-19	29	02	09	14	02	01	07	02	-16	04	07
	o.	13	04	06	01	12	03	03	-21	03	06	01	10	13	12	24
17.	m.	04	08	11	01	12	-19	04	08	02	05	-15	05	32	05	04
	⊙.	08	01	06	06	10	08	05	09	-16	14	-31	08	02	06	31
	k.	04	01	10	05	08	26	-19	07	13	02	37	07	28	02	-35
	g.	08	06	09	11	-15	03	17	08	08	14	14	06	05	05	03
18.	c.	02	21	10	-17	06	04	08	06	10	10	02	04	02	04	04
	b.	03	21	16	01	10	07	05	18	05	-36	10	29	03	-23	01
	j.	05	-21	-29	10	05	05	05	-18	08	44	11	-29	00	28	02
	e.	00	-18	08	05	18	02	07	03	05	03	02	00	03	12	03

ITEM DISCRIMINATION INDICES IN TERMS OF ACTIVITY-RUBRIC INTERCORRELATIONS BY SITUATIONS FOR FORM B

SITUATION	ACTIVITY-RUBRIC INTERCORRELATIONS	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o
19.	k.	05	06	-24	06	13	02	-16	03	02	08	43	08	02	08	13
	c.	06	01	36	00	00	-17	20	01	09	-19	-20	19	03	-19	01
	j.	05	13	14	14	07	10	13	03	22	14	07	07	09	02	-25
	o.	03	11	03	07	04	06	09	06	-16	04	-27	-19	06	09	40
20.	h.	02	07	02	07	04	14	07	32	07	-17	10	09	06	14	04
	i.	06	17	04	10	13	03	11	-41	29	01	13	03	10	08	04
	b.	17	35	05	13	11	21	13	-15	01	03	01	21	-17	-15	09
	p.	-15	-28	02	24	00	-32	10	07	-16	22	00	-26	12	20	00
21.	i.	26	07	14	-44	08	15	00	01	33	-15	-17	28	11	-21	11
	l.	10	06	17	14	04	04	01	17	07	-30	02	30	02	-33	14
	b.	03	14	10	10	-19	06	03	01	10	03	03	08	17	08	06
	n.	-27	-15	-19	52	05	13	04	14	-28	37	05	-48	04	47	18
22.	b.	20	24	20	-25	11	06	08	01	02	-17	12	20	12	-29	01
	d.	-23	-20	11	53	01	-19	01	13	-16	03	08	-29	12	18	09
	f.	13	12	05	-23	07	31	03	12	13	-20	05	18	-15	-30	05
	n.	07	11	13	11	14	03	10	-24	07	28	07	04	11	32	06
23.	i.	16	18	06	12	03	06	-16	07	34	10	12	16	03	-18	01
	h.	04	13	15	-16	04	01	04	18	08	08	06	28	09	13	06
	g.	09	-18	01	00	04	12	34	06	-15	06	06	-16	06	00	16
	d.	03	10	03	31	02	06	13	02	12	10	13	-23	01	27	12
24.	n.	01	01	11	16	04	01	08	-20	02	22	08	-17	14	43	05
	f.	02	10	02	03	10	18	11	08	11	-16	08	11	02	-23	03
	m.	02	07	15	03	02	12	02	05	08	07	12	10	13	03	10
	k.	04	04	04	09	04	07	01	18	02	13	12	16	04	-26	-18
25.	l.	00	00	07	03	03	03	10	08	10	14	14	15	02	-20	14
	a.	42	01	09	-24	02	12	06	07	16	14	09	09	09	-16	06
	n.	-37	-18	-15	25	11	01	12	04	-17	18	01	-22	02	37	06
	b.	00	22	02	02	07	-17	02	06	07	07	04	02	06	07	00
26.	g.	03	03	16	03	02	02	31	01	-16	-17	-21	08	-20	13	10
	m.	06	11	03	06	00	14	00	08	06	01	06	03	36	03	05
	f.	01	07	02	10	10	25	01	07	09	01	09	09	12	06	07
	j.	01	07	13	11	11	07	-32	13	03	19	09	13	01	21	09
27.	l.	05	11	02	-33	04	10	10	05	16	01	08	34	04	08	-16
	d.	14	02	05	47	04	11	06	04	-19	08	01	-31	04	22	06
	k.	08	05	08	12	03	01	11	14	12	06	26	05	08	01	01
	g.	01	14	12	05	03	00	27	12	08	14	-17	03	00	14	08

ITEM DISCRIMINATION INDICES IN TERMS OF ACTIVITY-RUBRIC INTERCORRELATIONS BY SITUATIONS FOR FORM B

SITUATION		ACTIVITY-RUBRIC INTERCORRELATIONS														
		a	b	c	d	e	f	g	h	i	j	k	l	m	n	o
	e.	11	00	06	04	37	03	-18	08	13	10	00	03	-20	07	13
28.	m.	06	04	07	11	-22	12	-16	06	12	12	09	12	30	01	04
	j.	01	12	12	01	07	01	-20	-17	13	17	09	-15	07	12	02
	g.	07	13	19	06	11	06	48	17	09	13	-25	05	01	-15	11
	a.	50	01	15	-19	19	01	09	01	05	-23	07	15	-18	-18	-18
29.	l.	04	17	27	10	07	14	04	28	13	-46	13	36	12	-27	-19
	o.	-22	06	06	15	09	01	23	01	06	02	10	-18	04	09	34
	j.	-30	12	-32	13	03	14	-16	-25	02	64	09	-30	14	32	03
	e.	01	05	13	06	25	11	06	05	01	06	-21	08	11	10	02
30.	o.	-31	06	04	12	08	01	14	08	04	04	-26	11	18	08	51
	k.	14	08	-26	13	-21	01	09	07	03	20	56	10	05	14	-21
	a.	48	10	13	-24	08	11	08	04	01	14	-16	32	14	-16	-29
	n.	14	02	16	10	05	03	-19	-17	07	14	05	07	09	12	02
31.	d.	-24	09	06	38	11	20	19	01	-19	08	08	09	03	14	14
	h.	10	08	12	-26	01	12	12	41	16	-30	10	25	03	-28	08
	e.	02	04	10	06	22	02	14	-22	02	08	06	08	10	00	06
	m.	13	07	10	14	11	-18	06	10	10	05	00	10	31	03	11
32.	e.	16	00	08	-25	22	01	05	09	06	12	09	14	-17	-17	11
	c.	04	00	21	09	05	10	04	07	07	01	07	13	-15	04	04
	f.	04	09	14	00	13	27	07	-26	11	07	16	10	04	16	06
	g.	04	06	07	06	07	04	27	07	01	11	01	01	07	07	01
33.	e.	10	10	15	12	34	09	10	19	01	01	09	03	06	03	06
	c.	02	05	21	08	01	-16	13	01	02	10	08	02	05	05	07
	p.	04	09	-25	01	-23	18	-23	12	03	15	15	01	15	13	00
	d.	-45	11	-21	53	-15	13	06	04	-16	23	11	-26	11	31	08
34.	h.	09	07	-22	14	02	09	04	11	02	16	02	05	09	05	05
	c.	02	05	40	-17	14	01	07	10	11	-24	-16	10	04	-20	02
	a.	54	09	01	-25	03	06	09	13	06	14	07	14	13	-16	14
	p.	12	25	24	-17	05	09	09	20	01	-51	12	36	01	-31	09
35.	c.	-28	11	01	16	07	01	02	05	01	21	02	13	17	22	01
	a.	42	01	04	07	02	01	14	02	01	07	01	01	08	08	11
	j.	-27	-15	-23	11	10	08	02	13	01	42	10	-27	08	20	01
	b.	10	37	10	14	05	08	08	-22	16	08	13	19	05	03	02
36.	k.	08	08	-21	06	06	14	08	-16	05	19	38	11	08	00	00
	h.	07	-17	01	04	04	11	18	40	14	09	-15	04	04	05	04
	d.	11	11	19	14	02	11	04	06	06	01	09	04	07	09	02

ITEM DISCRIMINATION INDICES IN TERMS OF ACTIVITY-RUBRIC INTERCORRELATIONS BY SITUATIONS FOR FORM B

SITUATION		ACTIVITY-RUBRIC INTERCORRELATIONS														
		a	b	c	d	e	f	g	h	i	j	k	l	m	n	o
37.	l.	01	01	11	01	03	03	01	08	-20	16	04	03	03	13	04
	e.	04	10	14	06	08	12	07	04	06	07	06	01	01	04	-22
	i.	05	22	02	02	02	05	07	07	16	-16	02	07	02	02	10
	o.	02	12	05	05	08	10	13	03	10	08	12	05	05	07	28
38.	i.	00	11	11	10	13	06	08	17	18	-31	14	17	01	-16	-18
	j.	12	-20	-23	16	08	07	08	-27	09	49	12	-21	04	23	03
	b.	15	29	09	05	00	18	09	03	00	-17	12	18	14	-15	-15
	o.	00	18	04	10	04	-16	09	09	09	06	-16	12	16	06	37
39.	c.	09	02	27	09	02	06	13	05	12	13	-15	01	13	06	08
	g.	03	03	06	03	12	08	15	01	14	01	03	05	10	03	01
	m.	09	03	-29	01	-38	01	-17	01	18	08	27	01	31	09	10
	e.	02	01	09	10	31	01	09	04	04	06	12	06	12	06	04
40.	l.	11	06	14	05	03	01	08	11	00	-31	03	26	01	-19	05
	i.	14	12	16	14	14	02	04	12	14	-20	00	14	04	-20	14
	j.	-20	-32	-32	29	08	-16	00	-16	11	46	14	-40	10	35	15
	c.	04	27	14	-24	04	22	04	01	04	14	-16	16	09	12	04
41.	a.	53	04	17	-20	19	07	12	03	01	-24	04	11	09	13	-35
	i.	-23	01	04	03	13	00	03	07	15	05	01	16	13	10	03
	o.	-18	14	-17	19	08	08	18	06	-35	22	08	-31	06	17	36
	l.	-17	12	06	05	-17	01	09	11	14	09	12	05	03	08	03
42.	h.	11	-20	06	01	03	06	21	38	05	11	09	00	12	14	-15
	n.	04	07	04	09	14	01	10	09	01	01	07	09	10	23	10
	j.	00	13	01	06	15	01	04	-26	13	23	01	08	03	13	10
	b.	17	46	04	03	01	08	-18	03	22	-17	04	20	06	-25	06
43.	g.	02	18	-17	-25	12	05	17	02	23	13	08	17	03	-27	03
	c.	18	03	44	13	03	05	10	03	05	12	10	18	02	13	02
	d.	07	-18	12	24	07	09	03	12	09	09	14	-19	05	03	09
	n.	-15	06	-23	14	14	01	08	04	09	18	09	17	00	41	03
44.	a.	29	05	03	-15	41	06	-16	08	01	12	08	03	-17	02	-17
	k.	-30	03	-32	15	-34	01	01	04	14	06	38	11	14	13	01
	c.	08	14	50	06	01	11	12	05	05	14	-23	12	01	09	05
	g.	06	12	11	06	09	05	31	08	09	06	09	03	01	06	12
45.	b.	-16	40	13	-16	04	15	04	08	09	01	08	25	01	09	06
	a.	20	-16	-15	15	03	06	01	05	08	01	08	08	01	01	02
	i.	-19	06	-16	06	01	06	06	09	13	02	08	13	02	08	06
	c.	08	10	35	02	06	10	08	06	10	02	04	02	00	00	02

ITEM DISCRIMINATION INDICES IN TERMS OF ACTIVITY-RUBRIC INTERCORRELATIONS BY SITUATIONS FOR FORM B

SITUATION		ACTIVITY-RUBRIC INTERCORRELATIONS														
		a	b	c	d	e	f	g	h	i	j	k	l	m	n	o
46.	p.	17	33	08	10	02	08	07	13	18	-15	08	27	00	12	07
	h.	-22	12	12	17	09	-19	19	36	-28	05	11	08	11	00	00
	i.	05	11	07	09	07	04	09	-18	24	07	18	-15	11	09	11
	o.	11	11	-15	03	00	08	03	06	10	13	03	05	02	05	16
47.	j.	05	07	07	09	15	01	07	04	12	04	01	10	01	05	09
	p.	03	18	-20	01	-26	15	-23	01	18	05	06	11	12	09	05
	g.	04	09	14	07	09	02	11	02	01	04	09	07	01	04	04
	c.	10	03	36	00	03	12	18	03	07	10	14	07	10	00	15
48.	d.	-34	03	-17	34	-17	07	03	05	05	17	12	-22	07	20	03
	o.	13	06	11	04	-25	01	04	04	13	06	16	04	19	09	33
	a.	34	06	14	-24	15	04	05	06	01	-27	14	24	04	-22	-15
	e.	06	02	13	02	26	04	02	09	07	22	13	02	-24	04	-21
49.	d.	12	01	07	35	10	00	01	14	-18	14	15	-18	03	04	12
	h.	15	04	06	-32	04	04	-15	23	23	-22	01	27	04	-27	08
	n.	04	04	05	06	06	04	11	09	11	17	01	-15	05	24	-17
	g.	05	01	08	-19	00	00	23	05	08	14	-17	12	01	06	11
50.	d.	05	11	05	36	05	06	12	01	-20	06	01	11	11	12	00
	m.	01	07	01	09	13	17	-15	04	10	09	05	01	20	04	02
	e.	10	03	20	13	42	-18	08	07	10	00	-25	01	08	08	01
	h.	06	01	-24	13	-25	08	06	10	20	03	18	07	01	01	00
51.	p.	11	09	07	11	14	07	06	02	01	09	06	09	01	11	04
	i.	12	11	08	-25	02	24	02	09	24	09	04	22	12	05	14
	l.	01	04	11	-21	01	01	01	13	02	-22	09	32	05	-23	05
	d.	-19	01	14	55	10	-17	06	02	-26	05	12	-38	06	19	12
52.	g.	-18	-25	01	13	12	-28	40	03	-24	12	-17	12	06	10	14
	m.	03	12	12	07	04	06	06	06	07	04	06	01	06	12	13
	f.	11	29	09	13	03	31	-24	06	10	-20	10	21	04	09	14
	k.	04	14	-22	07	05	04	-17	04	08	13	36	11	08	10	14
53.	k.	08	10	20	06	13	06	10	01	10	08	50	13	00	06	14
	o.	00	03	11	01	00	03	05	09	06	09	-22	06	01	09	25
	e.	07	02	11	09	34	-20	08	07	08	01	-33	07	09	05	09
	f.	02	10	01	05	-38	12	02	-18	04	01	02	01	12	08	01
54.	a.	31	10	10	-15	19	07	04	15	03	-25	-15	21	04	-28	09
	h.	-17	04	14	01	-24	09	12	37	01	07	06	07	07	14	06
	n.	06	09	01	10	04	06	01	-36	00	28	06	-20	12	34	19
	c.	08	03	04	06	03	08	10	13	06	04	04	08	01	08	-18

ITEM DISCRIMINATION INDICES IN TERMS OF ACTIVITY-RUBRIC INTERCORRELATIONS BY SITUATIONS FOR FORM B

SITUATION		ACTIVITY-RUBRIC INTERCORRELATIONS														
		a	b	c	d	e	f	g	h	i	j	k	l	m	n	o
55.	i.	01	18	06	13	13	13	02	-21	35	06	04	01	06	04	08
	p.	13	01	04	04	01	05	01	04	07	12	09	12	01	09	10
	n.	10	-17	07	07	13	00	11	-20	-27	36	01	-17	01	37	09
	h.	00	01	10	06	01	06	14	34	09	-20	11	06	03	-26	06
56.	e.	25	07	08	07	52	-15	00	00	-23	05	-23	14	12	00	00
	k.	00	06	02	06	-18	08	05	02	05	02	31	02	10	00	06
	f.	05	22	03	13	-17	25	02	00	17	-23	08	12	12	08	08
	m.	-22	06	06	01	-25	13	03	01	06	13	04	03	32	07	01
57.	h.	01	04	11	-16	02	01	04	04	13	-23	09	24	08	-18	09
	n.	12	00	00	12	16	00	10	03	06	01	01	03	12	01	01
	m.	00	07	05	10	07	07	07	03	10	03	12	05	17	05	13
	d.	11	09	13	33	08	05	08	03	-25	15	03	22	03	18	05
58.	a.	35	01	14	08	35	12	01	01	-20	-20	-23	05	13	10	01
	k.	-18	14	-19	19	-19	06	05	05	06	11	32	12	04	09	04
	p.	07	15	15	12	09	12	09	10	01	-15	12	16	07	-18	10
	j.	12	02	11	01	08	07	02	04	12	25	02	09	02	18	14
59.	f.	01	10	01	-15	03	04	08	10	04	10	06	08	03	01	06
	c.	17	18	29	-16	16	07	02	13	00	-29	-15	29	06	-30	-20
	d.	-31	-15	13	50	11	-15	04	10	-24	24	04	-32	11	33	13
	h.	12	02	-20	-23	06	06	09	04	23	01	09	07	09	01	04
60.	k.	00	10	11	00	07	09	-21	10	00	03	23	06	03	10	09
	m.	00	07	-19	13	00	-22	16	04	00	21	03	13	07	22	06
	f.	09	09	15	09	06	29	03	01	03	14	12	26	06	09	09
	g.	08	11	15	04	01	14	33	15	03	10	08	06	04	03	06
61.	g.	06	10	10	-17	13	06	26	10	03	-16	-22	09	08	-18	19
	f.	09	06	09	00	10	26	04	03	04	00	09	09	07	00	-19
	k.	13	-16	09	21	01	14	02	06	04	01	16	-16	02	06	11
	n.	07	04	03	03	04	05	-22	03	05	18	01	05	12	15	11
62.	b.	02	04	00	07	02	04	04	00	02	05	04	02	04	02	02
	j.	10	02	14	23	02	09	00	-15	14	25	06	-18	00	15	10
	n.	02	-23	03	06	02	05	08	10	01	01	13	09	03	02	05
	g.	14	20	13	-24	03	07	06	07	17	-30	-21	27	00	-20	03
63.	n.	11	-16	-19	18	06	12	01	06	-22	23	08	-26	01	38	04
	d.	05	05	34	01	14	06	09	11	-22	09	-19	08	03	12	01
	i.	11	05	14	09	09	05	01	11	29	02	22	04	08	-21	04
	b.	06	38	02	13	-15	02	13	08	19	-19	04	23	08	08	02

ITEM DISCRIMINATION INDICES IN TERMS OF ACTIVITY-RUBRIC INTERCORRELATIONS BY SITUATIONS FOR FORM B

SITUATION		ACTIVITY-RUBRIC INTERCORRELATIONS														
		a	b	c	d	e	f	g	h	i	j	k	l	m	n	o
	k.	09	01	11	06	12	-16	04	09	02	07	06	01	17	06	07
64.	g.	-18	07	02	13	06	10	23	07	-18	24	13	-16	03	14	10
	n.	09	05	03	05	01	-19	-17	08	03	03	05	06	08	12	01
	f.	05	11	08	13	-15	38	05	07	22	-21	12	22	-17	-20	-15
	a.	19	34	13	-17	05	05	-16	-19	16	03	11	16	-16	03	09
65.	d.	-18	-18	12	34	06	10	04	15	-21	18	06	-31	04	09	09
	e.	05	02	05	13	07	08	13	15	00	08	00	07	12	02	30
	p.	06	-18	07	06	07	03	01	18	06	07	06	09	01	04	-28
	h.	07	-16	09	05	02	02	04	27	13	09	05	02	12	10	01
66.	p.	14	12	06	06	05	-19	05	11	03	16	05	11	14	09	05
	b.	10	26	14	00	00	06	08	13	04	04	12	02	04	02	06
	l.	17	10	04	14	08	19	03	-32	23	04	12	14	01	01	01
	b.	05	27	02	14	-18	07	00	09	02	09	02	09	04	04	02
67.	h.	05	-28	01	08	14	-22	02	37	07	04	14	01	02	07	01
	m.	01	05	05	06	08	00	09	-25	01	06	06	03	16	00	08
	f.	14	01	09	04	07	17	12	06	04	06	11	06	-16	11	06
	h.	06	08	01	05	05	03	17	44	01	-17	-16	09	00	11	08
68.	f.	02	07	05	04	04	18	01	07	-15	10	10	05	05	05	03
	p.	01	-21	01	01	04	-18	03	13	08	04	18	08	04	01	03
	b.	07	37	07	03	14	02	-20	-27	10	03	10	03	02	07	02
	e.	13	04	16	09	16	06	07	07	04	14	10	07	11	13	10
69.	m.	00	05	06	06	03	-16	02	06	03	-19	00	03	21	00	00
	g.	04	08	13	04	13	05	28	08	08	-21	04	15	-15	-16	02
	j.	13	06	-27	07	00	02	-28	-18	00	32	11	-21	05	24	10
	j.	00	09	01	-17	03	00	05	09	08	03	03	09	06	12	01
70.	i.	09	04	09	-41	02	06	07	07	31	-17	07	20	01	-17	04
	n.	07	03	00	01	09	06	06	-15	06	10	09	04	12	20	15
	d.	-18	-15	08	47	08	01	04	15	27	03	11	-22	04	07	-15
	k.	-20	11	05	02	14	01	11	05	13	01	29	08	05	01	10
71.	a.	20	04	20	06	15	00	04	14	01	-30	-27	18	11	-20	-23
	f.	03	-23	08	09	06	02	20	01	-21	28	03	-20	02	26	23
	b.	04	42	05	07	07	04	-15	07	13	02	01	13	07	08	11
	h.	07	11	09	13	01	01	07	05	09	09	01	01	07	-23	01
72.	m.	02	06	08	-31	02	06	00	02	12	06	04	16	11	-18	12
	d.	-23	13	-20	37	12	09	01	01	-20	20	05	-26	10	17	07
	n.	18	00	08	08	12	07	03	02	05	-18	07	15	13	17	-17

ITEM DISCRIMINATION INDICES IN TERMS OF ACTIVITY-RUBRIC INTERCORRELATIONS BY SITUATIONS FOR FORM B

SITUATION		ACTIVITY-RUBRIC INTERCORRELATIONS														
		a	b	c	d	e	f	g	h	i	j	k	l	m	n	o
73.	f.	18	12	04	09	03	23	09	09	06	03	-18	12	03	04	04
	k.	07	-28	11	15	02	02	06	01	09	09	29	13	06	14	05
	m.	07	02	09	03	02	-21	07	05	05	09	09	10	19	07	02
	b.	03	39	22	05	00	07	09	05	00	13	-19	10	11	05	02
74.	e.	13	12	00	07	30	03	05	12	-15	12	02	-18	13	02	05
	a.	27	15	05	05	05	04	04	07	10	07	10	04	01	12	04
	i.	-26	06	12	05	-18	06	06	02	18	-19	14	19	04	28	04
	l.	11	03	08	06	14	06	16	21	05	-25	05	35	09	-17	13
75.	h.	07	02	04	19	02	06	09	25	12	01	10	12	06	04	01
	a.	29	10	02	11	11	10	02	13	10	00	08	02	11	02	10
	l.	01	27	06	-21	04	06	03	-15	11	12	04	38	03	-15	06
	p.	-20	-19	03	13	09	09	07	04	07	13	13	-23	03	13	04

APPENDIX B

ALLEN - DUROST

FORM A

ACTIVITY PREFERENCE INVENTORY

For High School Students

FORM A

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1. For a vacation evening, which one of the following would you most prefer? which least?

   h. Going to a party (Group)
   j. Making something from directions (Manipulative)
   b. Reading about a person who did much for others (Altruistic)
   l. Earning money for new clothes (Personal Improvement)

2. If you had been saving money from your allowance all year, for which one of the following would you most prefer to spend it? which least?

   j. Movie camera (Manipulative)
   i. Your share of the family vacation expenses (Home & Family)
   l. Trip to a new place (Personal Improvement)
   n. Some winter sports equipment (Physical Activity)

3. If your club were to make a scrapbook for a sick member, which one of the following would you most prefer to do? which least?

   e. Make the cover and some other illustrations (Creative)
   m. Get material for it from the members (Persuasive)
   f. Put the book together (Detail)
   b. Take the book to the member and visit a while (Altruistic)

4. If your school were to have an exhibition, which one of the following would you most prefer to do? which least?

   f. Arrange a hobby collection (Detail)
   j. Demonstrate a science experiment (Manipulative)
   e. Do woodcarving for the visitors (Creative)
   k. Draw to scale the floor plans of your school (Mathematical)

5. On a Saturday in the fall, which one of the following would you most prefer to do? which least?

   h. Go to a school game with the crowd (Group)
   i. Go to camp with the family (Home & Family)
   l. Earn $5 for things you need (Personal Improvement)
   p. Go for a ride in a plane (x)

6. On church day morning which one of the following would you most prefer to do? which least?

   p. Go to church (x)
   a. Listen to a radio program of organ music (Aesthetic)
   o. Read all the foreign news in the paper (Public Affairs)
   b. Stay with a sick neighbor so the family may go to church (Altruistic)

7. For which one of the following groups would you most prefer to shop? which least?

   l. Clothes (Personal Improvement)
   b. Gifts (Altruistic)
   e. Art and drawing supplies (Creative)
   f. Things for your collection (Detail)

8. If you were at a young people's conference, in which one of the following discussion groups would you most prefer to be? which one least?

h. How To Be Popular (Group)
i. A House or a Home-Which for You? (Home and Family)
o. Citizens of Tomorrow - Our Responsibilities (Public Affairs)
l. My Future - What, Where, How (Personal Improvement)

9. If you were to enter a radio contest, which one of the following would you most prefer to do? which one least?

f. Be on an information quiz program (Detail)
m. Try to persuade people to give to some worthwhile cause (Persuasive)
c. Take part in a talent show (Audience Approval)
e. Make up rhymes to advertise things (Creative)

10. If you were to spend a week-end in New York, which one of the following would you most prefer to do? which one least?

d. Try for a big prize at one of the broadcasts (Competitive)
k. Go to the Stock Exchange (Mathematical)
o. See the United Nations at work (Public Affairs)
c. Have your picture taken with a famous actor (Audience Approval)

11. On a summer evening, which one of the following would you most prefer to do? which one least?

i. Go for a speedboat ride with the family (Home & Family)
p. Go to a drive-in movie with someone of the opposite sex (x)
h. Go to a night baseball game with the gang (Group)
c. Go to a play rehearsal (Audience approval)

12. Which one of the following kinds of shows would you most prefer to attend? which one least?

i. Better Homes Exposition (Home & Family)
a. Flower Show (Aesthetic)
f. Hobby Show (Detail)
n. Sportsmen's Show (Physical Activity)

13. On a spring Saturday, which one of the following would you most prefer to do? which one least?

g. Take a group of younger folk to places of interest (Directive)
b. Collect used books for the City Hospital (Altruistic)
m. Take part in a Tag Day on the street (Persuasive)
n. Go roller skating (Physical Activity)

14. For which one of the following school activities would you most prefer to sign up? which one least?

b. Take part in a school service club project (Altruistic)
g. Be home room chairman (Directive)
o. Keep the bulletin board of news up to date (Public Affairs)
f. Help with office records and attendance (Detail)

15. If your school were to print a calendar of events, in which one of the following would you be most interested? which least?

d. Sports activities (Competitive)
h. Social activities (Group)
a. Musical programs (Aesthetic)
o. Current affairs forums (Public affairs)

16. In assembly, which one of the following programs would you most prefer? which one least?

o. Talk entitled,"Are You a Critical News Reader?" (Public Affairs)
d. Film of sports programs in near-by colleges (Competitive)
l. Discussion on how to make the most of your personal appearance (Personal Improvement)
c. Student planned program where you may be interviewed (Audience Approval)

17. If you were sick and could not go out which one of the following kinds of puzzles would you most prefer to do? which one least?

p. Cross word (x)
f. Jigsaw (Detail)
k. Mathematical (Mathematical)
j. Mechanical (Manipulative)

18. If the following elective courses were given in your school, in which one would you be most interested? in which one least?

j. Driver-training (Manipulative)
a. Art appreciation (Aesthetic)
g. Play production (Directive)
e. Woodcarving (Creative)

19. If you could have one of the following dreams come true, which one would you most prefer? which one least?

g. Be captain of one of the school teams (Directive)
l. Read your own biography and find it good (Personal Improvement)
o. Meet a famous news correspondent (Public Affairs)
i. Go away to school and still be at home every night (Home and Family)

20. If you went to a Better Homes Exposition in which one of the following exhibits would you be most interested? which least?

k. Exhibit of budgets for future home makers (Mathematical)
j. Demonstration of minor household repairs (Manipulative)
a. Ideas for interior decorating (Aesthetic)
e. Contest table - "Plans for Your Idea of a Home" (Creative)

21. If you were at summer camp and could do one of the following for a week-end which would you most prefer? which least?

n. Overnight canoe trip (Physical Activity)
d. Practicing for archery contest (Competitive)
i. Home for the week-end (Home and Family)
l. Bus trip to historic places (Personal Improvement)

22. If your school were to invite the class who will enter next year to spend a day with you, in which one of the following ways would you most prefer to help? which least?

e. Write a skit to be given (Creative)
c. Take part in a skit (Audience Approval)
m. Talk on a school activity to interest the group (Persuasive)
b. Be a "buddy" to one of the visitors for the day (Altruistic)

23. If you wanted to earn money for something special, which one of the following would you most prefer to do? which least?

f. Work in the city or town clerk's office (Detail)
k. Work on a news stand (Mathematical)
n. Wash dishes in a restaurant (Physical Activity)
d. Enter a radio contest telling why you prefer a certain product (Competitive)

24. In which one of the following would you most prefer to excel? in which least?

c. Dramatics (Audience Approval)
p. Your studies (x)
m. Debating (Persuasive)
d. Sports (Competitive)

25. If you had the chance to do one of the following for part of the summer, which one would you most prefer? which least?

b. Do volunteer service at the hospital (Altruistic)
g. Be a camp counselor (Directive)
i. Go with the family on a trip (Home & Family)
c. Have a part in a summer theater play (Audience Approval)

26. If you were asked to report on one of the following magazine articles which would you most prefer? which least?

o. A Day With a News Correspondent (Public Affairs)
a. What's Going On in the Classical Music World (Aesthetic)
j. New Developments in Science (Manipulative)
k. The New Calculating Machine at Harvard (Mathematical)

27. If you were to work during the summer which one of the following types of jobs would you most prefer? which least?

g. Being at an information desk (Directive)
f. Filing letters in an office (Detail)
k. Working as a clerk (Mathematical)
n. Being a life guard at the beach (Physical Activity)

28. If you were at summer camp and had a "free choice" afternoon, which of the following activities would you most prefer? which least?

d. Playing in an archery contest (Competitive)
h. Going with the gang to the nearest movie (Group)
j. Working on your handicraft project (Manipulative)
n. Rowing around the lake (Physical Activity)

29. To which of the following radio programs would you most prefer to listen? which least?

l. A career series (Personal Improvement)
p. Program of popular music (x)
f. Quiz program - "What's the Answer?" (Detail)
o. "It's News Time" (Public Affairs)

30. In the gym which of the following would you most prefer? which least?

n. Apparatus work (Physical Activity)
l. Corrective exercises (Personal Improvement)
d. Group games (Competitive)
g. Being marching leader (Directive)

31. On a Friday evening in the winter which one of the following would you most prefer? which least?

c. Going to a play rehearsal (Audience Approval)
k. Reading "Mathematics for the Millions" (Mathematical)
d. Playing basketball (Competitive)
h. Going to a school dance with the crowd (Group)

32. If you were to have one of the top staff positions on the school newspaper, which one would you most prefer? which least?

m. Advertising manager (Persuasive)
e. Art editor (Creative)
f. Circulation manager (Detail)
g. Editor-in-chief (Directive)

33. On a June evening, which of these would appeal to you most? which least?

h. Taking the gang with you in the family car (Group)
c. Playing in a dance band (Audience Approval)
i. Going somewhere with your Dad or Mother (Home & Family)
a. Going to a rehearsal of a program of church music (Aesthetic)

34. If you were to give an oral talk which of the following assignments would you most prefer?

g. I'd Like to Run This Place for a Day (Directive)
o. Yesterday Under the Capitol Dome (Public Affairs)
m. An exhibition of high pressure salesmanship (Persuasive)
d. The Last Five Minutes of the Big Game (Competitive)

35. On a stormy evening which would you most prefer? which least?

l. Reading an article on "How to Study" (Personal Improvement)
h. Calling up several people on the phone to chat (Group)
a. Listening to opera music on the radio (Aesthetic)
j. Developing and printing pictures (Manipulative)

36. If you were to buy one of the following magazines which would you prefer most? which least?

l. Seventeen or True (Personal Improvement)
j. Popular Mechanics (Manipulative)
o. Time or Newsweek (Public Affairs)
i. Better Homes and Gardens or American Home (Home and Family)

37. If you were to spend a winter afternoon with the "gang", which one of the following would you most prefer? which least?

n. Go skiing (Physical Activity)
i. Invite them to your house (Home & Family)
p. Go to the movies (x)
e. Make puppets (Creative)

38. If you were to contribute to your school magazine, which of the following would you most prefer to do? which least?

e. Write something original (Creative)
m. Get a personal interview from a well-known person (Persuasive)
k. Collect subscription money (Mathematical)
g. Be one of the editors (Directive)

39. If you were to have a vacation job in a newspaper office which of the following would you most prefer to do? which least?

f. Do proof reading (Detail)
m. Get subscriptions (Persuasive)
k. Work in the accounting office (Mathematical)
j. Run one of the machines (Manipulative)

40. If you were to spend an hour in a public library, in which of the following ways would you most prefer to spend it? which least?

a. Reading in the fine arts room (Aesthetic)
o. Reading about the United Nations (Public Affairs)
i. Reading magazines about houses and homes (Home & Family)
f. Looking up a list of references on some special topic (Detail)

41. On a Saturday morning in the winter which of the following would you most prefer? which least?

n. Skating (Physical Activity)
e. Making snow sculpture (Creative)
d. Playing basketball (Competitive)
b. Shoveling out for an elderly neighbor without pay (Altruistic)

42. If your group were to take a Christmas tree to the Children's Hospital, which of the following would you most prefer to do? which least?

e. Design favors and place cards (Creative)
a. Decorate the tree artistically (Aesthetic)
m. Get people to give the gifts or money for them (Persuasive)
k. Keep the account of the project (Mathematical)

43. On the afternoon of the first day of school, which of the following activities would you most prefer? which least?

h. Getting together with the crowd (Group)
d. Playing a fall sport (Competitive)
p. Looking over your new textbooks (x)
i. Going to the lake with the family (Home & Family)

44. If your school should set aside one period a day for an activity period which of the following would you most prefer? which least?

a. Art or Music (Aesthetic)
h. Social dancing (Group)
a. Cadets (Physical Activity)
c. Dramatics (Audience Approval)

45. If you were to do one of the following school service activities for a month, which would you most prefer? which least?

k. Sell tickets to school activities (Mathematical)
f. Be library assistant (Detail)
c. Serve as host or hostess to visitors (Audience Approval)
g. Be home room representative to student council (Directive)

46. If you were working at a summer hotel during vacation, which of the following would you most prefer to be? which least?

n. Waiter or waitress (Physical Activity)
k. Cashier in dining room (Mathematical)
f. Typist for the manager (Detail)
g. Head waiter or hostess (Directive)

47. Which one of the following activities would you most prefer for your winter vacation? which least?

h. Staying in a cabin with the gang (Group)
i. Staying at home with nothing you have to do (Home & Family)
m. Preparing for a debate at school (Persuasive)
d. Competing in a community winter carnival (Competitive)

48. If you were to have a season's pass to a group of community activities, which of the following would you most prefer? which least?

a. Community concerts (Aesthetic)
o. Lectures by foreign news correspondents (Public Affairs)
h. Community socials (Group)
p. Plays (x)

49. In which of the following types of school activities would you most prefer to excel? in which least?

a. Art or Music or both (Aesthetic)
k. Subjects based on the use of numbers (Mathematical)
p. Foreign languages (x)
c. Speaking activities (Audience Approval)

50. If, on Career Day, your school had discussion groups led by experts which of the following would you most prefer to attend? which least?

k. Pencil, Paper, Figures and Business (Mathematical)
i. My Work in My Home (Home & Family)
g. The Boss in Business (Directive)
b. A Career in Social Work (Altruistic)

51. Which one of the following would you most prefer to visit? which least?

o. City Council or Town Meeting (Public Affairs)
b. Patients at the City Hospital (Altruistic)
k. Business machines demonstration (Mathematical)
d. A boat race in which you take part (Competitive)

52. If your school had the following clubs, which one would you most prefer to join? which least?

j. The Camera Fans (Manipulative)
n. The Outdoor Club (Physical Activity)
f. The Collectors (Detail)
e. The Woodcarvers (Creative)

53. If a course in speech were required sometime while you are in high school, which of the following would you most prefer? which least?

m. Debating (Persuasive)
c. Dramatics (Audience Approval)
l. Speech improvement (Personal Improvement)
p. Public or radio reading (x)

54. During your spring vacation which one of the following would you most prefer to do? which least?

e. Design puppets (Creative)
n. Help prepare and plant a garden (Physical Activity)
b. Read daily to a blind person (Altruistic)
h. Go on a house party with the crowd (Group)

55. If you had a three-minute oral assignment in English, which one of the following would you most prefer? which least?

b. Tell about a person who had done much for the world (Altruistic)
j. Tell how to do a science experiment (Manipulative)
m. Give a high pressure sales talk (Persuasive)
o. Give a summary of the past week's news (Public Affairs)

56. If you were to choose one of the following topics for your next written lesson in English, which would you most prefer? which least?

i. A Family Costs Money (Home & Family)
a. America's Musical Heritage (Aesthetic)
e. Write a 12-line original poem (Creative)
o. What's Happening All Around Us (Public Affairs)

57. If you could see one of the following people at work, which of them would you most prefer it to be? which least?

o. Famous news commentator (Public Affairs)
a. Conductor of a famous symphony orchestra (Aesthetic)
e. Famous sculptor (Creative)
c. Famous actor (Audience Approval)

58. If you were to try to earn some Christmas money, which of the following would you most prefer doing? which least?

k. Being a clerk in a store. (Mathematical)
f. Checking sales slips in an office (Detail)
j. Making Christmas wreaths or greens (Manipulative)
m. Selling Christmas cards from house to house (Persuasive)

59. If you were to do a good turn for your community, which of the following would you most prefer? which least?

m. Get people to donate books for the veterans' hospital (Persuasive)
c. Sing or play for the blind (Audience Approval)
e. Design and make favors for the Home for the Aged (Creative)
g. Direct games for the neighborhood children (Directive)

60. If you were to visit for a day at a university, in which one of the following departments would you most prefer to be? which least?

m. Law (Persuasive)
j. Medicine or Nursing (Manipulative)
b. Social work (Altruistic)
g. Teaching (Directive)

61. During your summer vacation which one of the following activities would you most prefer? which least?

g. Being a junior counselor at camp (Directive)
p. Have nothing you have to do (x)
b. Volunteering for hospital service (Altruistic)
a. Work at an art museum (Aesthetic)

62. If you were to go to the movies, under which one of the following conditions would you most prefer to go? which least?

i. Go with the family (Home & Family)
h. Go with your crowd (Group)
p. Go with someone of the opposite sex (x)
b. Take someone of your own sex who doesn't have much money (Altr)

63. If you were to spend a day with a city or town official, with which of the following would you most prefer it to be? which least?

g. City manager, mayor, or first selectman (Directive)
f. City or town clerk (Detail)
m. City or town lawyer (Persuasive)
j. City or town doctor or nurse (Manipulative)

64. Which one of the following would you most prefer to do with money you had earned? which least?

i. Use it for part of a trip with the family (Home & Family)
l. Save it for further education (Personal Improvement)
a. Buy albums of classical music (Aesthetic)
n. Buy a bicycle (Physical Activity)

65. If your home room were to put on a talent show, which one of the following would you most prefer to do? which least?

c. Be in a teen-age fashion show (Audience Approval)
g. Coach the show (Directive)
e. Draw crayon portraits of people (Creative)
p. Be in the audience (x)

66. On a September evening which one of the following would you most prefer doing? which least?

b. Typing tickets at home for a school play (Altruistic)
d. Competing in a try-out for class play parts (Competitive)
l. Looking up information on your chosen career (Personal Impr)
j. Developing pictures (Manipulative)

67. If you were taking a train trip through a region new to you and through beautiful country, which of the following would you most prefer to do while riding?. which least?

o. Read a news magazine (Public Affairs)
h. Talk to someone you met on the train (Group)
a. Watch the scenery (Aesthetic)
d. Play cards (Competitive)

68. On a pleasant summer day, which one of the following would you most prefer to do? which least?

j. Have the family car to drive (Manipulative)
h. Go on a picnic with your friends (Group)
d. Play tennis (Competitive)
n. Go canoeing (Physical Activity)

69. If you were to spend a week at a winter sports lodge, in which one of the following would you be most interested? which least?

n. Going on the ski jump (Physical Activity)
h. Evening social affairs (Group)
d. Competitive events (Competitive)
l. Trying to improve your technique in some one thing (Pers Impr)

70. If you were looking through a mail-order catalog, in which one of the following sections would you be most interested? which least?

l. Clothes (Personal Improvement)
i. Furniture and home equipment (Home & Family)
b. Gift ideas (Altruistic)
e. Art supplies (Creative)

71. If you were to take one of the following practical elective courses, which would you most prefer? which least?

l. Course called "Understanding Ourselves" (Personal Improvement)
j. Course in caring for and doing small repairs on a car (Manip)
m. How to Be a Successful Salesperson (Persuasive)
i. Looking Ahead to Home Planning (Home & Family)

72. If your school asked you to help in a money-raising program, which of the following would you most prefer to do? which least?

c. Do a solo part of some kind (Audience Approval)
m. Sell tickets in the community (Persuasive)
b. Tend the checkroom during the program and dance (Altruistic)
k. Keep track of the expenses involved (Mathematical)

73. If you were to sign up for a school sport which one of the following reasons would influence you most? which least?

n. It involves much physical activity. (Physical Activity)
d. You like competition. (Competitive)
h. Most of the crowd is signing up. (Group)
c. You think you may be able to "shine" in this sport. (Aud Appr)

74. If your class were to visit the city of Washington, which one of the following would you most prefer to do? which least?

o. Listen to a Senate debate (Public Affairs)
f. See the museum collections at Smithsonian Institute (Detail)
a. See the Washington Cathedral (Aesthetic)
l. Visit famous historical buildings (Personal Improvement)

75. If your class were putting on a play, which one of the following would you most prefer to do? which least?

c. Be one of the players (Audience Approval)
n. Work behind the scenes (Physical Activity)
g. Act as stage manager (Directive)
k. Take over the ticket selling (Mathematical)

ALLEN-DUROST

FORM B

ACTIVITY PREFERENCE INVENTORY

For High School Students

FORM B

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FORM B

1. If you were at camp, which one of the following activities would you most prefer to sign up for? which least?

   c. Outdoor dramatics (Audience Approval)
   n. Horseback riding (Physical Activity)
   d. Sailboat racing (Competitive)
   g. Counselor training (Directive)

2. If your school were to put on a Christmas pageant, which one of the following would you most prefer to do? which least?

   f. Get together the costumes and properties (Detail)
   c. Be the narrator (Audience Approval)
   e. Design the scenery (Creative)
   a. Help with the music (Aesthetic)

3. For an evening in the fall which one of the following would you most prefer? which least?

   i. Stay at home with the family (Home & Family)
   b. Visit a sick friend who is in the hospital (Altruistic)
   d. Bowl on a team (Competitive)
   j. Go to crafts class (Manipulative)

4. If you were left quite a large sum of money by a relative, which one of the following would you most prefer to do with it? which least?

   b. Use some of it for things your parents have long wanted but couldn't have (Altruistic)
   p. Buy a television set (x)
   l. Save it for further education (Personal Improvement)
   j. Buy a movie camera and lots of film (Manipulative)

5. If you were allowed to spend your study periods in the library, which of the following would you most prefer to do? which least?

   e. Draw plans for your idea of a school (Creative)
   f. Look up information on your hobby (Detail)
   l. Read travel books (Personal Improvement)
   o. Read newspapers or news magazines (Public Affairs)

6. If your school were to entertain a visiting team, in which one of the following ways would you most prefer to help? which least?

   m. Find homes for the team to stay in (Persuasive)
   g. Take care of the dance arrangements (Directive)
   k. Sell dance tickets (Mathematical)
   f. Help collect and serve the eats (Detail)

7. If you were to enter an essay in a competition, which one of the following titles would you most prefer? which least?

   p. It's Later Than You Think (x)
   i. My Home Life Is Happy Because - (Home & Family)
   m. Military Training - Yes or No (Persuasive)
   l. The Ideal High School Student (Personal Improvement)

8. If you were to spend a day with a college student majoring in one of the following, which would you most prefer? which least?

o. Government work (Public Affairs)
k. Business (Mathematical)
a. Music (Aesthetic)
n. Physical Education (Physical Activity)

9. If you were to spend your vacation with your grandparents on a farm where there was no radio, which of the following would you miss most? which least?

i. The family (Home & Family)
o. Listening to the news (Public Affairs)
l. The chance to earn money (Personal Improvement)
p. Going to the movies (x)

10. If your school could have only one outside assembly speaker for the year, which of the following would you most prefer? which least?

o. Member of Congress (Public Affairs)
l. Speaker on the job outlook for youth (Personal Improvement)
j. Scientist (Manipulative)
a. Speaker on famous examples of architecture (Aesthetic)

11. If you had to pay a forfeit at a party, which of the following would be easiest for you to do? which least desirable?

m. Sell a Fuller brush (Persuasive)
c. Make a one-minute speech (Audience Approval)
k. Do a math puzzle (Mathematical)
e. Sketch someone on the blackboard (Creative)

12. If you were to have group discussions at a club conference, which of the following groups would you most prefer to join? which least?

i. Home Responsibilities of Youth (Home & Family)
p. Date Problems of Youth (x)
o. Citizenship Problems of Youth (Public Affairs)
l. Personality Problems of Youth (Personal Improvement)

13. If your week-end English assignment could be any one of the following, which would you most prefer? which least?

e. Write an original poem of at least 12 lines (Creative)
o. Write a summary of the national news of the past week (Pub Aff)
c. Write a letter to the School Board trying to convince them that Christmas vacation should be longer (Persuasive)
f. List 10 biographies written during the year, their authors and one sentence about each biography (Detail)

14. If you were to join only one of the following clubs, which would you most prefer? which least?

e. Creative art club (Creative)
j. Crafts club (Manipulative)
b. Good turn club (Altruistic)
c. Dramatic club (Audience Approval)

15. If you might attend one of the following during a study period, which would you most prefer? which least?

l. A discussion on "High School Students Face Life, Love and Competition" (Personal Improvement)
o. An explanation of how your city or town government is run (Public Affairs)
j. A film about science (Manipulative)
i. A talk on home budgeting for young people (Home & Family)

16. If you were to spend a Saturday afternoon in a large city which of the following would you most prefer to do? which least?

h. Go to a major league baseball game with friends (Group)
l. Shop for new clothes (Personal Improvement)
a. Go to the art museum (Aesthetic)
o. Visit a government office (Public Affairs)

17. If your school showed career movies weekly for anyone interested, which of the following would you most prefer to see? which least?

m. Career in Salesmanship (Persuasive)
o. Career in Government Service (Public Affairs)
k. Career in Accounting (Mathematical)
g. Career in Business Management (Directive)

18. If your club were to undertake a Christmas project, which of the following would you most prefer? which least?

c. Be on a program at the Home for the Aged (Audience Approval)
b. Try to cheer children in the hospital (Altruistic)
j. Repair broken toys for needy children (Manipulative)
e. Write a Christmas playlet (Creative)

19. If you were to elect one of the following courses at school, which would you most prefer? which least?

k. General math (Mathematical)
c. Public speaking (Audience Approval)
j. Shop or Home Economics (Manipulative)
o. World History (Public Affairs)

20. If you might have the family car for the evening, which of the following would you most prefer? which least?

h. Taking the gang with you (Group)
i. Taking the family with you (Home & Family)
b. Taking someone who has few chances to go to ride (Altruistic)
p. Taking a friend of the opposite sex (x)

21. If you were window shopping which of the following displays would interest you most? which least?

i. Home furnishings (Home & Family)
l. Clothing (Personal Improvement)
b. Gifts your parents might like (Altruistic)
n. Sporting and camping equipment (Physical Activity)

22. Which of the following would you be most interested in doing next Friday afternoon? which least?

b. Entertaining a foreign student (Altruistic)
d. Playing some competitive sport (Competitive)
f. Working at the library (Detail)
n. Working in a restaurant clearing tables (Physical Activity)

23. If you were to go to a young people's conference, in which one of the following would you be most interested? which least?

i. Discussion groups on home problems (Home & Family)
h. Meeting new people (Group)
g. Leadership training activities (Directive)
d. Games and contests (Competitive)

24. During your summer vacation which one of the following ways to earn money would you most prefer? which least?

n. Job on a farm (Physical Activity)
f. Sales slip checker in a store office (Detail)
m. House-to-house salesman (Persuasive)
k. Cashier in a cafeteria (Mathematical)

25. If you were given $5 for your birthday, which of the following would you prefer most to do with it? which least?

l. Buy some clothes (Personal Improvement)
a. Buy some symphony records (Aesthetic)
n. Use it toward a week-end at a sports lodge (Physical Activity)
b. Take a foreign student in your school to something special (Altr)

26. If your school published a yearbook in which of the following activities connected with it would you be most interested? which least?

g. Editorial staff (Directive)
m. Advertising staff (Persuasive)
f. Subscription staff (Detail)
j. Taking pictures of school activities (Manipulative)

27. At the end of your high school days for which of the following would you most prefer to be remembered by your class? which least?

l. For having made the most improvement in four years (Pers Impr)
d. For having your name on a sports trophy (Competitive)
k. For carrying honors in math (Mathematical)
g. For having been class president (Directive)

28. If your school were sending a Red Cross portfolio to a foreign country, which of the following would you most prefer to do? which least?

e. Make the cover (Creative)
m. Get people to furnish material for the portfolio (Persuasive)
j. Take pictures of school activities (Manipulative)
g. Be chairman of the project (Directive)

29. If you were to spend an afternoon in the magazine room at the public library, which one of the following types would you most prefer to read? which least?

✓a. Art or music magazines (Aesthetic)
✓l. Magazines dealing with clothes and good grooming (Pers Impr)
✓p. News magazines (Public Affairs)
✓j. Magazines telling how to make things (Manipulative)

30. If the following courses were offered at your school but not required, which one would you most prefer to elect? which least?

✓e. Creative writing (Creative)
✓p. Current history (Public Affairs)
✓k. Higher math (Mathematical)
✓a. Music appreciation (Aesthetic)

31. Which one of the following winter activities would you most prefer? which least?

n. Skating (Physical Activity)
d. Earning a winter sports letter (Competitive)
h. Going on a sleigh ride (Group)
e. Carving figures out of wood (Creative)

32. If your class were studying an important news question, which of the following would you most prefer to do? which least?

m. Debate one side of it (Persuasive)
e. Write an editorial on it (Creative)
c. Give an oral report on it (Audience Approval)
f. Assemble a list of references dealing with it (Detail)

33. If your school were putting on an entertainment which one of the following would you most prefer to do? which least?

g. Be chairman of the planning committee (Directive)
e. Write a skit for some group to do (Creative)
c. Be master of ceremonies (Audience Approval)
p. Be in the audience with nothing to do (x)

34. If you were to go to a private school, in which of their activities would you be most interested? in which least?

d. Sports (Competitive)
h. Club life (Group)
c. Dramatics (Audience Approval)
a. Musical organizations (Aesthetic)

35. If you were to spend an afternoon with patients in a hospital ward, in which of the following would you be most interested? which least?

p. Reading to the patients (x)
c. Doing sleight-of-hand tricks for the patients (Audience Appr)
a. Playing classical records for interested patients (Aesthetic)
j. Helping patients with mechanical puzzles (Manipulative)

36. On a day when there is no school which one of the following would you most prefer to do? which least?

b. Collect used magazines for the veterans' hospital (Altruistic)
k. Work on some math puzzles (Mathematical)
h. Meet the gang at the corner drug store (Group)
d. Play a game of cards (Competitive)

37. If you picked up a magazine containing the following articles, which title would interest you most? which least?

l. From Hobby to Career (Personal Improvement)
e. Name It Contest (Creative)
i. Week-end Fun for the Whole Family (Home & Family)
o. How to Read Newspapers (Public Affairs)

38. On a vacation evening which of the following would appeal to you most? which least?

i. Entertaining relatives (Home & Family)
j. Browsing through a book on how to make things (Manipulative)
b. Staying with a neighbor's children without pay (Altruistic)
o. Going to a program on current affairs (Public Affairs)

39. If your school were to put on a radio show, which of the following would you most prefer to do? which least?

c. Be one of the speakers (Audience Approval)
g. Direct the broadcast (Directive)
m. Persuade the local radio station to give the time (Persuasive)
e. Write the script (Creative)

40. If you had the chance to work in a store during your Christmas vacation in which one of the following departments would you most prefer to be? which least?

l. Teen-age clothing department (Personal Improvement)
i. Model rooms of furniture department (Home & Family)
j. Automobile parts and supplies (Manipulative)
c. Being Santa's helper in the store window (Audience Approval)

41. In assembly which one of the following types of programs would you most prefer? which least?

a. A high-grade musical program (Aesthetic)
i. Student discussion - "What My Family Has a Right to Expect of Me" (Home & Family)
o. A news reel of national and international events (Public Aff)
l. Speaker on "How to Make Wise Use of Leisure Time" (Pers Impr)

42. On a December evening which one of the following would you most prefer? which least?

h. Going on a straw ride with the group (Group)
n. Going skating (Physical Activity)
j. Making Christmas greens from outdoor materials (Manipulative)
b. Taking club gifts to a hospital ward (Altruistic)

43. If you were to spend your vacation at a summer resort which one of the following activities would interest you most? which least?

g. Directing game periods for the children of the guests (Directive
c. Taking small parts at the summer theater (Audience Approval)
d. Taking part in the tennis match (Competitive)
n. Swimming and water activities (Physical Activity)

44. If you were to send for some catalogs of specialized schools and colleges, in which one of the following would you be most interested? in which least?

a. Art school (Aesthetic)
k. Business school (Mathematical)
c. Dramatic school (Audience Approval)
g. Teachers' college (Directive)

45. In connection with music, which one of the following would be of most interest to you? which least?

b. Playing records for patients at Home for Aged (Altruistic)
a. Listening to classical music (Aesthetic)
i. Enjoying music at home with the family (Home & Family)
c. Playing or singing music in public (Audience Approval)

46. On New Year's Eve which one of the following would you most prefer? which least?

p. Going to a Church Watch Night Service (x)
h. Going to a dance with your crowd (Group)
i. Going to a midnight movie with the family (Home & Family)
o. Listening to radio reviews of the past year's events (Pub Aff)

47. If your class were doing a special project, which one of the following activities would you most prefer? which least?

j. Make something for it (Manipulative)
p. Follow whatever directions the teacher gives (x)
g. Take charge of a summary program at the end (Directive)
c. Report orally on something concerning it (Audience Approval)

48. If you could do one of the following which would you most prefer? which least?

d. Go bowling (Competitive)
o. Go to a talk on current affairs (Public Affairs)
a. Go to a ballet (Aesthetic)
e. Go to clay modeling class (Creative)

49. Which one of the following summer activities would you most prefer? which least?

d. Golf (Competitive)
h. Picnics (Group)
n. Diving (Physical Activity)
g. Directing a Scout or club group (Directive)

50. If your school were to have a winter carnival, in which one of the following ways would you most prefer to take part? which least?

d. Enter one of the competitive events (Competitive)
m. Solicit prizes (Persuasive)
e. Make snow sculpture (Creative)
h. Be a spectator (Group)

51. In reading a newspaper which one of the following parts would be of most interest to you? which least?

p. Comic strips (x)
i. Careers You Can Carry On at Home (Home & Family)
l. Column of problems of adolescents (Personal Improvement)
d. Sports page (Competitive)

52. If you were to be a club officer, which of the following would you most prefer? which least?

g. President (Directive)
m. Program chairman (Persuasive)
f. Secretary (Detail)
k. Treasurer (Mathematical)

53. If each person in your class were to care for the library display case for a week, which one of the following types of collections would you most prefer to bring? which least?

k. Math puzzles (Mathematical)
o. Historic newspapers or clippings (Public Affairs)
e. Miniature stage scenery you had made (Creative)
f. Coins, stamps or rocks (Detail)

54. Which one of the following types of rhythmic activities appeals to you most? which least?

a. Ballet (Aesthetic)
h. Social (Group)
n. Marching (Physical Activity)
c. Baton twirling (Audience Approval)

55. If your family were spending the week-end at the beach, which one of the following outdoor activities would you most prefer? which least?

i. Going with the family for a ride in the car (Home & Family)
p. Lying by yourself on the beach to get a sun tan (x)
n. Going rowing (Physical Activity)
h. Going to a beach party (Group)

56. If you were to spend the summer working for a magazine publisher, which of the following jobs would you most prefer? which least?

e. Working in the art section of the advertising department (Creative
k. Working with numbers in the circulation department (Math)
f. Proof reading (Detail)
m. Selling subscriptions from house to house (Persuasive)

57. On a summer afternoon which one of the following activities would you most prefer? which least?

h. Reading "How to Make Friends Easily" (Group)
n. Going bicycling (Physical Activity)
m. Trying to get donations for the community fair (Persuasive)
d. Playing golf (Competitive)

58. If you were to attend "open house" at the school of a friend, which of the following would you most prefer to see? which least?

a. Art exhibit (Aesthetic)
k. Business machines exhibit (Mathematical)
p. Exhibit of regular classwork (x)
j. Shop or home economics exhibit (Manipulative)

59. At one of the school games which one of the following would you most prefer to be? which least?

f. Manager of the team (Detail)
c. Cheer leader (Audience Approval)
d. Player (Competitive)
h. Spectator (Group)

60. If you were to take your share of the responsibility for a club picnic, which one of the following would you most prefer to do? which least?

k. Budget the expense and collect the money (Mathematical)
m. Get cars to take the group (Persuasive)
f. Buy and pack the food (Detail)
g. Be general chairman of the picnic (Directive)

61. If you had the chance to work at a bus terminal during the summer, which of the following would you most prefer to do? which least?

g. Be at the information desk (Directive)
f. Check the ticket stubs returned by the drivers (Detail)
k. Sell local tickets (Mathematical)
n. Work on the lunch counter (Physical Activity)

62. In a time of great emergency, which one of the following things would you prefer to do to help? which least?

b. Cheer people who are in trouble (Altruistic)
j. Help with first aid (Manipulative)
n. Serve food (Physical Activity)
g. Care for small children (Directive)

63. Which one of the following activities would you most prefer to do on an evening when you have no home work? which least?

n. Go swimming at the "Y" pool (Physical Activity)
d. Try out for a play (Competitive)
i. Be at home and do just as you like (Home & Family)
b. Visit a friend who is ill (Altruistic)

64. To earn money during the summer which one of the following would you most prefer? which least?

k. Be a clerk in a store (Mathematical)
g. Serve as a guide at a place of historical interest (Directive)
n. Work as waiter or waitress in a cafeteria (Physical Activity)
f. Be a filing clerk in an office (Detail)

65. Which one of the following nation-wide events would you like most to see? which least?

a. Easter Sunrise Service at Grand Canyon (Aesthetic)
d. Army-Navy Football Game (Competitive)
o. Opening of Congress (Public Affairs)
p. New Year's Eve in Times Square (x)

66. Which one of the following recess activities would you most prefer? which least?

h. Being with the "gang" (Group)
p. Being with someone of the opposite sex (x)
b. Helping a new student get acquainted with other students (Altr)
d. Looking up the correct way to do things at some special social affair (Personal Improvement)

67. Which one of the following telephone calls would you be most interested in making? which least?

b. Offering sympathy to someone in sorrow (Altruistic)
h. Chatting with a friend (Group)
m. Asking someone to give to a worthy cause (Persuasive)
f. Calling to get train time information (Detail)

68. On an evening in May which one of the following would you most prefer? which least?

h. Go for a walk with the crowd (Group)
f. Work on jigsaw puzzles (Detail)
p. Watch television (x)
b. Mow the lawn for a neighbor who is ill (Altruistic)

69. If you were to spend a day with some member of the staff of a newspaper office, with which one would you most prefer to be? which least?

e. An editorial writer (Creative)
m. Advertising manager (Persuasive)
g. Managing editor (Directive)
j. One of the people in the machine room (Manipulative)

70. Which one of the following summer activities would you most prefer? which least?

j. Taking a First Aid course (Manipulative)
i. Going often with the family to an amusement park (Home & Family)
n. Mountain climbing (Physical Activity)
d. Playing baseball or softball (Competitive)

71. If your school were to visit one of the following places which of the following would you most prefer? which least?

k. A bank (Mathematical)
a. A flower show (Aesthetic)
f. A natural history museum (Detail)
h. A hospital for crippled children (Altruistic)

72. On a Saturday afternoon in spring, which one of the following would you most prefer? which least?

h. Go on a hike with the gang (Group)
m. Go around the neighborhood asking for used things for a rummage sale (Persuasive)
d. Play baseball or softball (Competitive)
n. Go horseback riding (Physical activity)

73. If your group were preparing a basket for a needy family at Thanksgiving, which one of the following would you most prefer to do? which least?

f. Collect the things and pack them (Detail)
k. Estimate the entire cost and the quantity each should give (Math)
m. Get the members to donate the things (Persuasive)
b. Deliver the basket and talk with the family (Altruistic)

74. If you could go to one of the following which would you most prefer? which least?

e. Creative art exhibit (Creative)
a. Symphony concert (Aesthetic)
i. Home appliance exhibit (Home & Family)
l. Fashion show for teen-agers of both sexes (Personal Improvement)

75. On a stormy afternoon which one of the following would you most prefer to do? which least?

h. Brave the storm to go to club (Group)
a. Listen to an opera on the radio (Aesthetic)
l. Read an article on "How to Make the Most of Yourself" (Pers Impr)
p. Read comic books (x)

Form A

SAMPLES

d	c	a	s
d	c	a	s

f	m	k	s
f	m	k	s

Name _____ Age _____ Sex _____

Grade _____ School _____

Community _____

L
M-L

	h j b l s		o d l c s		c k d h s
1M	h j b l s	16M	o d l c s	31M	c k d h s
1L		16L		31L	
	j i l n s		p f k j s		m e f g s
2M	j i l n s	17M	p f k j s	32M	m e f g s
2L		17L		32L	
	e m f b s		j a g e s		h c i a s
3M	e m f b s	18M	j a g e s	33M	h c i a s
3L		18L		33L	
	f j e k s		g l o i s		g o m d s
4M	f j e k s	19M	g l o i s	34M	g o m d s
4L		19L		34L	
	h i l p s		k j a e s		l h a j s
5M	h i l p s	20M	k j a e s	35M	l h a j s
5L		20L		35L	
	p a o b s		n d i l s		l j o i s
6M	p a o b s	21M	n d i l s	36M	l j o i s
6L		21L		36L	
	l b e f s		e c m b s		n i p e s
7M	l b e f s	22M	e c m b s	37M	n i p e s
7L		22L		37L	
	h i o l s		f k n d s		e m k g s
8M	h i o l s	23M	f k n d s	38M	e m k g s
8L		23L		38L	
	f m c e s		c p m d s		f m k j s
9M	f m c e s	24M	c p m d s	39M	f m k j s
9L		24L		39L	
	d k o c s		b g i c s		a o i f s
10M	d k o c s	25M	b g i c s	40M	a o i f s
10L		25L		40L	
	i p h c s		o a j k s		n e d b s
11M	i p h c s	26M	o a j k s	41M	n e d b s
11L		26L		41L	
	i a f n s		g f k n s		e a m k s
12M	i a f n s	27M	g f k n s	42M	e a m k s
12L		27L		42L	
	g b m n s		d h j n s		h d p i s
13M	g b m n s	28M	d h j n s	43M	h d p i s
13L		28L		43L	
	b g o f s		l p f o s		a h n c s
14M	b g o f s	29M	l p f o s	44M	a h n c s
14L		29L		44L	
	d h a o s		n l d g s		k f c g s
15M	d h a o s	30M	n l d g s	45M	k f c g s
15L		30L		45L	

	n k f g s		g p b a s		h j b l s
46M	n k f g s	61M	g p b a s	76M	h j b l s
46L		61L		76L	
	h i m d s		i h p b s		j i l n s
47M	h i m d s	62M	i h p b s	77M	j i l n s
47L		62L		77L	
	a o h p s		g f m j s		e m f b s
48M	a o h p s	63M	g f m j s	78M	e m f b s
48L		63L		78L	
	a k p c s		i l a n s		f j e k s
49M	a k p c s	64M	i l a n s	79M	f j e k s
49L		64L		79L	
	k i g b s		c g e p s		h i l p s
50M	k i g b s	65M	c g e p s	80M	h i l p s
50L		65L		80L	
	o b k d s		b d l j s		p a o b s
51M	o b k d s	66M	b d l j s	81M	p a o b s
51L		66L		81L	
	j n f e s		o h a d s		l b e f s
52M	j n f e s	67M	o h a d s	82M	l b e f s
52L		67L		82L	
	m c l p s		j h d n s		h i o l s
53M	m c l p s	68M	j h d n s	83M	h i o l s
53L		68L		83L	
	e n b h s		n h d l s		f m c e s
54M	e n b h s	69M	n h d l s	84M	f m c e s
54L		69L		84L	
	b j m o s		l i b e s		d k o c s
55M	b j m o s	70M	l i b e s	85M	d k o c s
55L		70L		85L	
	i a e o s		l j m i s		i p h c s
56M	i a e o s	71M	l j m i s	86M	i p h c s
56L		71L		86L	
	o a e c s		c m b k s		i a f n s
57M	o a e c s	72M	c m b k s	87M	i a f n s
57L		72L		87L	
	k f j m s		n d h c s		g b m n s
58M	k f j m s	73M	n d h c s	88M	g b m n s
58L		73L		88L	
	m c e g s		o f a l s		b g o f s
59M	m c e g s	74M	o f a l s	89M	b g o f s
59L		74L		89L	
	m j b g s		c n g k s		d h a o s
60M	m j b g s	75M	c n g k s	90M	d h a o s
60L		75L		90L	

ALLEN-DUROST ACTIVITY PREFERENCE INVENTORY

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Form B

SAMPLES

X M	h	d	c	a	S
X L	h	d	c	a	S
Y M	n	f	m	k	S
Y L	n	f	m	k	S

a b c d e f g h i j k l m n o p

M

L

M-L

Name

Grade ___ Age ___ Sex ___ Community ___ School ___

1M c n d g S	16M h l a o S	31M n d h e S	46M p h i o S	61M g f k
1L c n d g S	16L h l a o S	31L n d h e S	46L p h i o S	61L g f k
2M f c e a S	17M m o k g S	32M m e c f S	47M j p g c S	62M b j n
2L f c e a S	17L m o k g S	32L m e c f S	47L j p g c S	62L b j n
3M i b d j S	18M c b j e S	33M g e c p S	48M d o a e S	63M n d i
3L i b d j S	18L c b j e S	33L g e c p S	48L d o a e S	63L n d i
4M b p l j S	19M k c j o S	34M d h c a S	49M d h n g S	64M k g n
4L b p l j S	19L k c j o S	34L d h c a S	49L d h n g S	64L k g n
5M e f l o S	20M h i b p S	35M p c a j S	50M d m e h S	65M a d o
5L e f l o S	20L h i b p S	35L p c a j S	50L d m e h S	65L a d o
6M m g k f S	21M i l b n S	36M b k h d S	51M p i l d S	66M h p b
6L m g k f S	21L i l b n S	36L b k h d S	51L p i l d S	66L h p b
7M p i m l S	22M b d f n S	37M l e i o S	52M g m f k S	67M b h m
7L p i m l S	22L b d f n S	37L l e i o S	52L g m f k S	67L b h m
8M o k a n S	23M i h g d S	38M i j b o S	53M k o e f S	68M h f p
8L o k a n S	23L i h g d S	38L i j b o S	53L k o e f S	68L h f p
9M i o l p S	24M n f m k S	39M c g m e S	54M a h n c S	69M e m g
9L i o l p S	24L n f m k S	39L c g m e S	54L a h n c S	69L e m g
10M o l j a S	25M l a n b S	40M l i j c S	55M i p n h S	70M j i n
10L o l j a S	25L l a n b S	40L l i j c S	55L i p n h S	70L j i n
11M m c k e S	26M g m f j S	41M a i o l S	56M e k f m S	71M k a f
11L m c k e S	26L g m f j S	41L a i o l S	56L e k f m S	71L k a f
12M i p o l S	27M l d k g S	42M h n j b S	57M h n m d S	72M h m d
12L i p o l S	27L l d k g S	42L h n j b S	57L h n m d S	72L h m d
13M e o m f S	28M e m j g S	43M g c d n S	58M a k p j S	73M f k m
13L e o m f S	28L e m j g S	43L g c d n S	58L a k p j S	73L f k m
14M e j b c S	29M a l o j S	44M a k c g S	59M f c d h S	74M e a i
14L e j b c S	29L a l o j S	44L a k c g S	59L f c d h S	74L e a i
15M l o j i S	30M e o k a S	45M b a i c S	60M k m f g S	75M h a l
15L l o j i S	30L e o k a S	45L b a i c S	60L k m f g S	75L h a l

THE ALLEN - DUROST ACTIVITY PREFERENCE INVENTORY

Manual of Directions

1. Purpose of the Inventory

Provision for individual differences is a "must" in every good school set-up. For a long time this was interpreted as meaning, principally, differences in mental capacity; however, within the last twenty years, the factor of interest has become one of the chief elements of this individual difference theory due to increasing emphasis on the fact that interest is a prime requisite of a happy adjustment to life.

The purpose of the Allen-Durost ACTIVITY PREFERENCE INVENTORY is to provide an evaluative instrument which, supplementing measures of achievement and intelligence, will give a more complete picture of high school students and make possible sounder guidance educationally, vocationally, and avocationally during the secondary school years. Because it is based on the interests of adolescents while they are adolescents and does not ask them to think ahead into adulthood, it provides a more realistic picture of these interests.

Most of the existing interest inventories are founded largely on occupational preferences, thus being primarily measures of vocational interest. A few include educational and avocational interest areas as well as vocational, but all seem to require the teen-ager to think in terms of interest and experience far in advance of his years.

An instrument that meets the adolescent on his own level and stays there with him cannot help but give a more accurate measure of the young person than one which makes it necessary for him to shuttle constantly back and forth mentally between actual adolescence and imagined adulthood during the time he is completing the interest inventory.

2. Classifications of Interests

The Allen-Durost ACTIVITY PREFERENCE INVENTORY is set up within a framework of fifteen areas of interest, as follows:

1) Aesthetic: Interest in things beautiful, in nature and the fine arts, including painting, drawing, architecture, sculpture, poetry, classical music, and artistic dancing.

2) Altruistic: Interest in going out of one's way to do things that benefit others, especially of a social service nature.

3) Audience Approval: Interest in appearing before the public as evidenced by taking part alone or in a group in musical or dramatic arts activities.

4) Competitive: Interest in competing with others in any situation where one's skill or talent is challenged.

5) Creative: Interest in producing something original in music, art, science, literature, or of a mechanical nature.

6) Detail: Interest in fussy jobs which involve working with, or collecting, or organizing materials, and which require one to keep at them for quite a long time.

7) Directive: Interest in taking charge of people or things where some measure of responsibility is involved.

8) Group: Interest in the companionship of others and in taking part in group activities.

9) Home and Family: Interest in activities which are done at home which imply happy relations with family members, and which indicate a desire on the part of the adolescent to include home life in his future life pattern of activities.

10) Manipulative: Interest in activities requiring motor coordination especially hand skill, in operating or repairing machines or equipment, or in making things from patterns, recipes, directions or scientific formulas.

11) Mathematical: Interest in activities requiring arithmetic skill precision and accuracy.

12) Personal Improvement: Interest in improving one's self in appearance, skill, education, culture, character, or occupation.

13) Persuasive: Interest in influencing people to follow your suggestions by convincing arguments and pressured persuasion.

14) Physical Activity: Interest in taking part in activities of a non-competitive nature, involving particularly the large muscles used in recreational activities or unskilled labor routines.

15) Public Affairs: Interest in citizenship activities and public affairs as evidenced by reading, radio listening, audience participation or personal contact with people and events of local, state, national or international significance.

3. Selection of Items

The inventory consists of two presumably equivalent forms, A and B. Each form contains 75 four-choice multiple choice items and the forced-choice technique is used, which means that every student is asked to make a choice on every question. The content for the questions, each of which is a situation within the knowledge, experience, and immediate interest of adolescents as a whole is the result of the study of other existing interest inventories, the memory and experience of the authors, observation of and close contact with hundreds of adolescents over a long period of time, and a free-response list of interests and preferences compiled from some 900 pupils in a representative New England high school. Each question in Form A has a counterpart or near-counterpart in Form B, and each sub-item is used with one or more questions than its original to give the activity a chance to compete with several other interest possibilities.

4. Time

The total time required to complete the inventory varies from one to two hours, the average being about one and one-half hours. While it may be given in one sitting, two are strongly recommended, one for each form. An advantage in administration is that it may be stopped and picked up at a later time with no apparent harm to the results.

5. Answer Sheet and Marking of Responses

A separate answer sheet, the standard IBM type, is used and the individual answer spaces are coded in terms of the interest areas represented. Two rows of answer spaces are used for each item; the top marked "M" will contain the response MOST PREFERRED among the four choices; the bottom marked "L" will contain the response LEAST PREFERRED among the same four. The fifth answer space in every row is labeled "S", signifying Strength of Like or Dislike. If a student feels a very strong liking for the activity he has marked as his most preferred choice, he fills in the S space, in addition to his "M" mark. If he feels a very strong dislike for the activity he has marked as his least preferred choice he fills in the S space in addition to his "L" mark.

6. Scoring

The scoring will be done by the test authors. In scoring the inventory, the number of responses in the "M" row for each interest area plus all strength marks for that area are counted and the number 50 as a constant is then added to the score to do away with the negative number problem. The same is done for the "L" score. The total score for each interest area on each form is the "M" score minus the "L" score. For one composite score the average of the totals of Forms A and B are used.

7. Pupil Profiles

An individual profile chart will be provided for each student. This chart when completed gives a picture of one's likes and dislikes as measured by this particular inventory.

At the top of the profile chart are the fifteen areas of interest which this inventory seeks to measure. At the bottom of the chart are two rows of boxes - a plus row and a minus row. The numbers shown there are the scores transferred from the answer sheet. These scores locate the dots on the fifteen vertical axes. Across the center will be found the line marked 50 which represents the point at which there is complete indifference to an interest area. Dots above that line mean a liking for interests represented by that particular axis where the dot occurs, while dots below the line mean that that kind of activity is disliked.

From these profiles may be seen the general pattern of one's interests. From these one should be able to find some educational and vocational help in making plans for the future. This ACTIVITY PREFERENCE INVENTORY does not intend to direct one to any single occupation or career; it merely serves as a guidepost to interest trails one might profitably follow or avoid if he is to find happiness in the years ahead.

8. Directions for Administering (To be read slowly to pupils)

Today you are asked to fill out an interest inventory. Th is not a test. There are no right or wrong answers so you nee not worry about your score.

Before you begin on the inventory you are to fill out a sh questionnaire. While you are filling that out, I shall place your desk a copy of the inventory and a special pencil you are use for it. Please do not touch the inventory until you are g further directions. Will you now fill out the questionnaire, please? (Collect the questionnaires when completed.)

Each question in the inventory is a true-to-life situation of the kind that most young people take part in at some time during their high school years or would take part in if they h the chance. By learning more about your interests, it is beli that more help can be given to you in understanding yourself a in planning your work and activities more happily both in scho and out. After this inventory is checked you will be shown a file chart of your own interest patterns.

A separate answer sheet is used. Remove the answer sheet the booklet and fill in the following information: your name, the name of your community, the name of your school, your grad your age and your sex. All of this goes in the spaces at the s

Now look at the sample questions on the front page of the let. Sample X says, "If you were to choose one of the followi to do next Saturday night, which would you most prefer? which least?"

Under this question are four activities from which to choo Select the one you most prefer and record your choice at the s of the answer sheet in the row of answer spaces marked XM and the letter corresponding to your choice. If you particularly the choice you have marked, fill in also the S space in the sa row. This is a Strength mark. If you aren't too keen about y choice, do not fill in the S space. Make your marks between t vertical answer space lines heavy and black.

Look again at Sample X. This time choose the activity you would least prefer among the same four and record your choice the XL row of answer spaces. If you particularly dislike your choice, mark the S space also. If you do not feel too strongly against it, do not mark the S space.

Do the same for Sample Y . . . .

Now be sure that the Form letter on the top of the answer sheet agrees with the Form letter on the front cover of the boo let- Form A answer sheet with Form A booklet; Form B answer she with Form B booklet. How many have Form A? How many have Form

Follow the same plan on all the other questions as you did the samples.

When you finish the form on which you are now working, turn answer sheet and booklet over and do the other form. Are there questions?

8. Directions for Administering - continued

REMEMBER THESE FIVE THINGS!

1) Do not mark on the booklets themselves.
2) Make your marks on the answer sheet heavy and black.
3) Mark the thing you most prefer in the M row of spaces, and the thing you least prefer in the L row of spaces.
4) Mark the S space only when you particularly like or dislike something.
5) Make a choice every time, please.

BEGIN!

9. Special Extra Directions to Teachers

1) Be sure a questionnaire is filled out for each pupil.

   This will furnish pertinent information to the test authors in carrying out the necessary research for the improvement and validation of the inventory.

2) Be sure the forms are given out alternately.

   This is necessary for securing the reliability of the forms, another of the research phases of the study.

3) Be sure to collect the special pencil from each child.

   These pencils which contain a high carbon content permit the answer sheets to be scored in a test-scoring machine.

4) Be sure that each pupil finishes the whole inventory.

   This is not a speed inventory and an answer to every item by every pupil is necessary to the worthwhileness of the data.

QUESTIONNAIRE: Allen-Durost ACTIVITY PREFERENCE INVENTORY

y Margaret E. Allen, Public Schools, Portland, Maine
nd Walter N. Durost, School of Education, Boston University

ame _____ Sex _____

ddress _____
Street City State

ge in years _____ Next birthday _____
Month Day

chool _____ Year _____ Course _____

hich one of the subjects you are taking now do you most prefer? _____

hich one of the subjects you are taking now do you least prefer? _____

chool organizations you belong to: _____

_____

chool organizations you would like to belong to: _____

_____

ave you always gone to school in this town or city? _____
f not, where else? _____

o you plan to take any further schooling after high school? _____
f so, where? _____

ould you like to go further in school after high school if you could? _____

hat would you like to do for your life work? _____

o you think you are going to be able to do this? _____

hat organizations, such as clubs, Scouts, etc., not connected with school do you
long to? _____

_____

hat organizations not connected with school would you like to belong to? _____

_____

hat is your father's occupation? _____

your mother is employed now, what is her occupation? _____

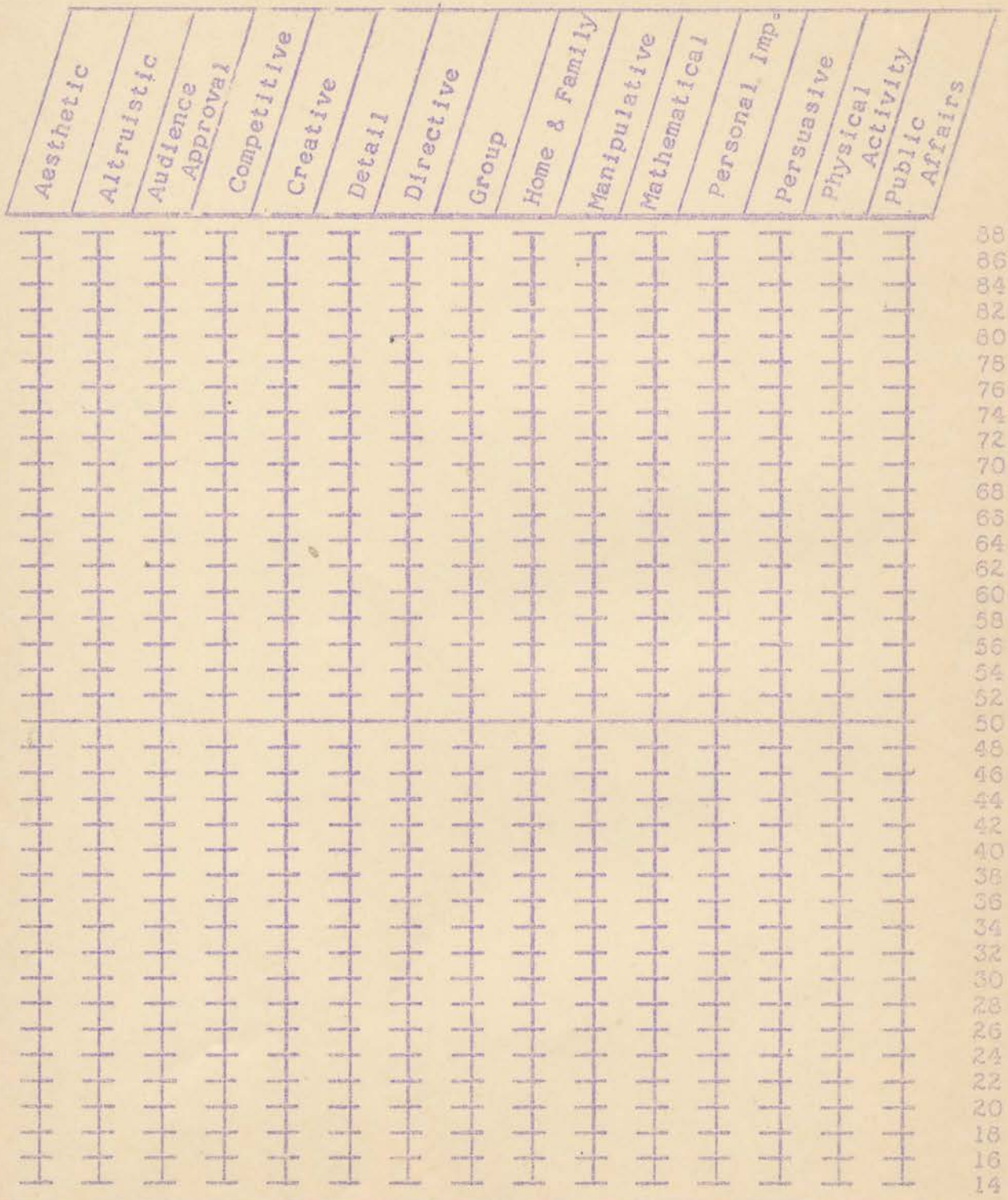
hat was your mother's occupation before she was married? _____

you have any serious physical handicap? _____

mmunity _____ PROFILE CHART Date _____

ACTIVITY PREFERENCE INVENTORY
By Margaret E. Allen and Walter N. Durost

me _____ School _____ Teacher _____



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Form A-1

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Name _____

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