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MOTIVES INFLUENCING NEEDS TO ACHIEVE IN VOCATIONAL EDUCATION.

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THIS RESEARCH SOUGHT TO MEASURE MOTIVATION UNDERLYING ACHIEVEMENT-ORIENTED BEHAVIOR AT THE SECONDARY LEVEL, SPECIFICALLY OF STUDENTS IN VOCATIONAL PROGRAMS. PARALLEL INSTRUMENTS OF 42 ITEMS WERE CONSTRUCTED TO MEASURE MOTIVE FOR STRIVING, BASED ON MASLOW'S HIERARCHY OF NEED FOR SECURITY, BELONGINGNESS, ESTEEM, AND SELF-ACTUALIZATION. STRENGTH OF EACH MOTIVE WAS MEASURED ACCORDING TO KRATHWOHL'S TAXONOMIC LEVELS OF RESPONDING, VALUING, ORGANIZING VALUES, AND CHARACTERIZING BY A VALUE. PRETESTING SHOWED THAT ADMINISTERING A TEST OF 42 ITEMS WAS IMPRACTICAL. A 20-ITEM TEST RESULTED FROM ELIMINATION OF THE MASLOW CATEGORIES FROM THE LOWER LEVELS OF KRATHWOHL'S SCALE. EXPERIMENTATION WAS DESIGNED TO PROVIDE A VALIDATION OF THE INSTRUMENT BY CREATING DIFFERENT MOTIVATION LEVELS THROUGH MANIPULATING SUCH SPECIFIC VARIABLES AS (1) PERFORMANCE SCORE, (2) SELF-CONCEPT, AND (3) TASK RELEVANCE. MOTOR AND COGNITIVE TASK SITUATIONS, INVOLVING DIFFERENT LEVELS OF THESE VARIABLES, WERE DEvised AS THE SETTING FOR MOTIVATION AROUSAL. RESULTS OF THE PRETESTING OF THE AROUSAL INSTRUMENT AND THE EXPERIMENT WERE LISTED. (GC)

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**MOTIVES INFLUENCING NEED TO ACHIEVE IN
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ABSTRACT

Motives Influencing Need to Achieve in Vocational Education

Purpose

The research sought to measure motivation underlying achievement-oriented behavior at the secondary level, specifically in students in vocational programs. In order to accomplish this over-all objective two subordinate goals were set: a) to construct an instrument to elicit basic motives as categorized by Maslow and measure their strength, using Krathwohl's taxonomy of affect levels; b) to measure experimentally-induced motivation in terms of affect, level of aspiration and effort criteria.

The research was designed to test the following hypotheses: a) a task perceived as highly relevant for one's vocational preference and for which one correctly perceives himself as competent, will elicit a higher level of affect (aspiration, effort) than a task that is irrelevant and for which self concept of ability is low; 2) the relationship of affect and its antecedents: career-relevance of task, self concept, and observed ability will vary with different subgroups of sex, SES, and grade level when grade point average is controlled.

Procedure

Parallel instruments of 42 items were constructed to measure motive for striving, based on Maslow's hierarchy of need for security, belongingness, esteem, and self-actualization. Strength of each motive was measured according to Krathwohl's taxonomic levels of responding, valuing, organization of values, and characterisation by a value. Pretesting showed that a test of 42 items entailed too much time in administering to make it feasible to use with the projected experiment. A 20-item test resulted from elimination of the Maslow categories from the lower levels of Krathwohl's scale. These latter measure

striving strength, and do not specify the motive for trying to achieve. Revisions of the 20-item test followed pretesting of the original.

Experimentation was designed to provide a validation of the instrument by creating different motivation levels through manipulating specific variables: performance score, self concept, and task relevance. Motor and cognitive task situations, involving different levels of these variables, were devised as the setting for motivation arousal. A pretest was used to establish a specific level of self concept in the subject. Upon each performance of the assigned task the subject was given a prearranged success or failure score that was consonant with self concept in half of the experimental treatment groups and divergent in the other groups. Seven performance trials were allowed, each of which was preceded by asking the subject to set the score he was going to try to make on the performance that was to follow. Subsequent to each performance the subject was given the opportunity to study or practice, thus providing evidence of effort. Upon completion of seven trials he was asked to fill in the affect instrument.

Pretesting of the experiment was done but actual testing has not been undertaken because of the unavailability of subjects at the time requested.

Results

Only pretest results can be given as the research had to be terminated at that stage. Pretesting of the affect instrument resulted in several revisions. The final pretest results indicated that items written to measure different levels of affect did discriminate satisfactorily; they did not fall into the predicted difficulty levels hypothesized by Krathwohl's hierarchy, however. Belief items were entirely too easy to respond to in relation to their supposed order in the sequence. This finding led to rewording of the statements to include consistent behavior in line with one's belief.

Pretesting of the experiment indicated that the highly controlled procedure was feasible in terms of credibility on the part of the subjects and single-period administration. Motor and cognitive tasks proved to be satisfactory, but experimenters who are trained in administering the tasks are required.

Efforts to continue the research beyond the pretest phase proved abortive. Further attempts to validate the affect instrument through concurrent administration of Finger's Personal Values Inventory, yielding a persistence score, and French's Test of Insight, measuring need-achievement, likewise proved futile.

MOTIVES INFLUENCING NEED TO ACHIEVE IN VOCATIONAL EDUCATION

Purpose and Nature of Research

The proposed research sought to investigate certain variables relevant for vocational preparation and adjustment. It was reasoned that since all vocational training should have as a goal the individual's satisfaction or, more broadly, positive affective response to job performance, then training programs must be able to assess the motivational level of the trainee under varying situations. The purpose of the research was twofold:

- a) to devise an instrument to measure affect level under conditions of striving
- b) to arouse motivation under controlled experimental conditions, and to measure response, using the criteria of level of aspiration (intention), effort (exertion), and affect level (emotion or feeling).

An overview of the proposed research will be presented although only limited implementation was realized.

An experiment was designed to arouse achievement motivation under conditions present in job training and performance: namely, motor vs cognitive nature of the task, its perceived vocational relevance vs irrelevance, high vs low self concept of ability to perform the task, and success vs failure level of performance. Motivation was to be measured by goal for next performance set by the subject to indicate the score he was going to try for (intention), number of attempts the subject made to improve score (exertion), and self-reported attitude toward striving (emotion). Data were to be analyzed according to grade level (10th and 12th), sex, socioeconomic status of father or guardian (high, middle, low), and grade point average in school.

Hypotheses to be tested:

- 1) A task perceived as highly relevant for one's vocational preference, and for which one correctly perceives himself as competent, will elicit

a higher level of affect than a task that is irrelevant and for which self concept of ability is low.

2) The relationship of affect and its antecedents: career-relevance of task, self concept, and observed ability will vary with different subgroups of sex, SES, and grade level when grade point average is controlled.

Similar hypotheses using level-of-aspiration and effort-to-improve measures instead of affect will be tested as part of Experiment I in order to evaluate the motivational implications of affect level. If there is some validity to the speculation of Heider (1958) that a relationship exists among intention, exertion and affect, then similar effects can be expected from the variables in the task situation whether data are a measure of aspiration, effort or emotion relative to striving.

Related Research

Investigations have been made into the relationship of self concept, the individual's abilities and needs, and significance of the task to vocational selection and job satisfaction. Since these dimensions are incorporated in the proposed study, their previous contributions to research are noteworthy here.

Self concept. According to Super (1963) self concept is a fundamental factor in vocational development. He regards self-knowledge as basic to selection of a vocation that enables the individual to realize maximum satisfaction. This is not to deny the importance of knowledge of the field. According to the self-concept explanation of job selection, knowledge of self is related by the individual to known qualities of a specific area of work. Impetus for vocational selection comes from perceived satisfaction, which is a function of the self-fulfillment that the job allows.

Carter's work on adolescent interests (1940) relates vocational preference to the individual's self concept. Prior to the selection stage, opinions of self lead to the development of preferences for certain kinds of work. Direction throughout the process of vocational maturing is given by the self concept.

Abilities and Needs. Maslow (1953) posits self-actualization as a need within an individual that steers him into specific courses of action. "What a man can be he must be" (p. 382). The drive towards realization of self finds its directive in the self concept of the person. It can be concluded that the individual would derive satisfaction from jobs that allow him to use his ability or skills. Satisfaction is assumed to be proportionate to the extent to which one's level of ability is tapped. Brown and Ghiselli (1953) found a greater turnover among cab drivers with aptitude scores markedly above and below the average for their occupation. A negative relationship between levels of ability versus job demands on that ability resulted in cessation of work. Veroff, Atkinson, Feld, and Gurin (1960) found in a national sample of employed men that job satisfaction was related positively to workers' reports of their adequacy on their jobs.

Although satisfaction with a job has been found to be related to opportunity for realizing one's potential on the job, according to Maslow the strength of the underlying self-actualization need is not the same for all individuals. He theorizes that needs are hierarchical, those lower on the scale requiring reduction before higher level needs dominate the individual. In other words, strength of need for self-actualization will be dependent on the extent to which lower order needs have been met. Need for food, clothing and shelter must be satisfied before higher order needs arise. Lack of concern with the nature of their work was evidenced by underprivileged workers in Chicago studied by Davis (1946). Rather than

seeking to belong to the work group, to gain esteem or to actualize their potential through their work, the underprivileged sought to meet the basic survival needs.

Differential levels at which satisfaction is reached give evidence of the existence of a hierarchy of needs and warn against ignoring background variables when satisfaction is investigated experimentally. According to Pellegrin and Coates (1957) success was perceived by executives in terms of career accomplishments and by first-level supervisors in terms of attainment of security and being a good provider for one's family. Satisfaction was had at two very different levels of success. Heltzel (1966) obtained support for differential definitions of success but in a situation highly divergent from the foregoing study. When twelfth-grade girls were given low scores by a teacher for performance on a certain task but high scores by a teenager, students who had accumulated a high grade point average in school work expressed preference for the teacher's evaluation, whereas those with low grades preferred the teenager's easy definition of success.

Significance of the Task. In addition to being a function of the perceived potential of a task for fulfilling the self concept, satisfaction is contingent upon the perceived relevance of the task. Vroom (1964) believes that the affective consequences of success and failure upon task performance may depend on the nature of the task and its relation to the self concept of the performer. Kaufmann (1962) found that subjects who failed on a task which they had been led to believe measured a valued ability expressed significantly greater dissatisfaction than those who believed they had failed on a task measuring an ability to which they were indifferent.

If satisfaction in one's job is related to its potential for self-actualization, then satisfaction with preparatory steps to vocational

choice can be expected to be related to one's perception of his school program as facilitating the attainment of his goals. It is expected that greatest striving occurs in courses perceived as valuable for vocational preparation and later job satisfaction. Eventually the range of courses taken by a large student sample may serve to validate the instrument constructed as part of the proposed research to measure motivation in vocational preparation. The heuristic and practical value of a valid and easily-administered measure of motivation would be enormous.

Rationale for Development of Affect Instrument

Development of a test that can measure student reaction to courses for vocational preparation and adjustment would provide insight into the motivational antecedents of students' academic behaviors. Satisfaction can be realized from involvement in a course or can be anticipated by the student because the course is perceived as enabling him to reach specific goals.

These goals are realizable if the values or motives underlying or driving behavior are sufficiently strong. Striving to achieve in school is a function of immediate enjoyment or anticipated satisfaction of dominant needs or motives.

According to Krathwohl et al (1964), feelings and emotional responses range from "voluntary receptiveness" through "enjoyment" and "valuing" to a state of maximal affective internalization, termed "characterization by a value". At the lower levels of this scale, affect can be perceived as a response to an operation or event rather than a predisposition to respond.

Such proclivity could be hypothesized as being determined by the motive prepotent within the person at the time. Maslow maintains that the more basic needs dominate until they are relatively satisfied; when their potency is reduced through satisfaction, the individual is influenced by higher level

needs. A hierarchy of needs is theorized by Maslow, ranging from physiological ones to need for security and safety, for belongingness, for esteem, and for self-actualization as fulfillment.

Instrument Construction

Parallel instruments of forty-two items were constructed to measure level of striving or motivation to achieve in an academic milieu. Each test was composed of four subscales based on Maslow's needs: security, belongingness, esteem, and self-actualization. Placing this hierarchy of motives in an academic setting resulted in interpreting student striving in terms of wanting to be sure of passing (need for security), to be a part of the world about him (need for belongingness), to gain the respect of self and others (need for esteem), and to make the most of one's talents (need for self-actualization). A series of items of increasing strength of motivation was developed for each of the motives in each of the parallel forms.

Level or strength of motivation was derived from Krathwohl's taxonomy of educational objectives in the affective domain. Scales included the following taxonomic levels: responding (2.0), valuing (3.0), organization of values (4.0), and characterization by a value (5.0). In the instruments, these levels are testing respectively: voluntariness and satisfaction in striving behavior; consistency and commitment to striving; ordering of values that may influence need to achieve; predisposition to behave according to specific values in achievement-oriented situations. Item scoring methods in Appendix show hypothesized item levels. No scaling has been done to provide statistical evidence of the levels because the final form of the test has not been administered.

Pretesting of 42-Item Forms. Pretesting of the alternate forms sought to check reliability of the tests, to gain support for Krathwohl's

hypothesized affect scale, and to ascertain predominant motives for striving among high school students.

The total of 84-items was given to 40 tenth graders who were taking a health course during summer sessions at Ithaca High School in order to accelerate. Motivation to achieve was anticipated to be uniformly high in such a group. The scores on the equivalent forms of the test yielded a correlation coefficient of .83 which was considered satisfactory in view of test length and testee homogeneity on the variable measured.

Scalability of items according to level of affect would argue for increased difficulty in responding as higher levels of need to achieve were tested. Item analysis failed to reveal consistent support. Items involving belief in striving to achieve (Level 3) were more easily accepted than those calling for an expression of satisfaction (Level 2). Subscores based on responses to each of Maslow's motives showed commitment to strive for security and self-actualization with considerably lower scores on the belongingness and esteem scales.

Table 1. Evaluation of Motives

Maslow Level:	I	II	III	IV
Subscores:	20.5	4.0	7.5	49.0

20-Item Test: Construction and Pretesting. Administration of the instrument had to be reduced to ten minutes in order to use the test within the time available for experimentation. The rationale for reducing the test stemmed from the assumption that a motive for striving is a function of the values one holds. Maslow's motives, consequently, were not introduced into those levels of Krathwohl's taxonomy that precede conceptualization of a value (4.0). The total test of 20 items covers the same span of levels as the original, however. Subscales of the four Maslow motives

no longer include Levels 2.0 and 3.0; instead, at these levels, the items test only strength of need to achieve.

The 20-item test, together with one of the 42-item original tests (slightly revised in light of weaknesses revealed in initial pretesting), was given to 214 tenth and twelfth graders in Elmira, New York. Scores on the 42 and original 20-item tests correlated .36 among boys ($p < .01$) and .24 with girls (r of .26, p of .05). That is to say, boys' responses on the two forms showed a relationship beyond that occurring by chance, whereas the probability is greater than 5/100 that chance could account for the relationship found in the two sets of girls' scores.

Item analysis based on low and high scoring students showed that items written at seven of the nine Krathwohl levels discriminated satisfactorily (near or above .40 Index of Discrimination).

Table 2. Item Analysis of Original 20-Item Test

<u>Proposed Krathwohl Level</u>	<u>Discrimination Index</u>	<u>Difficulty Level</u>
2.1	.15	90%
2.2	.60	22 too hard (vague wording)
2.3	.56	72
3.1	.56	81
3.21	.67	52
3.3	.33	81)
4.1	.19) too easy (be- 91) lief without) behavior)
4.2	.44	76)
5.1	.52	18

Items at two levels were so easy to accept that high and low scoring students responded similarly. One item was at the lowest level of affect

towards striving (2.1) and, hence, would be expected to be acceptable generally. The other item supposedly was at a high level (4.1) and should have discriminated between students with high and low test scores. This level, as it appears in the revised 20-item test, is measured by four items giving a choice among alternatives dealing with one motive expressed in different levels of abstractness. In the original 20-item test each of the four items included the four motives, forcing the respondent to select a value. Consistency in responding, rather than abstraction level, was measured. The revised procedure for measuring at Krathwohl's 4.1 level (Conceptualization of a Value) seems more appropriate as a prelude to 4.2 (Organization of Values) which involves ranking of values.

"Belief" items (3.0 level) on the original 20-item test were revised to allow the respondent to report behavior based on belief rather than belief only. Reporting a belief in striving proved to be quite easy and therefore yielded high difficulty levels on item analysis.

The revised test, Trying to Achieve, appears in the Appendix.

Proposed Experimentation

Through experimentation, evidence might be obtained for the variable effects on striving of self concept, ability to perform, and relevance of task for vocational preparation. The affect aroused under various combinations of these dimensions would provide an indication of their importance for vocational guidance as well as serve to validate the test as a measure of motivation to achieve. Highest striving would be predicted under high self concept of ability when task relevance for vocational preparation is perceived.

Experimental Procedure. Experimental groups would be made to vary according to type of task (motor vs cognitive), its relevance for vocational preference (relevant vs not relevant), self concept of ability to perform

the task (high vs low), and level of performance on task (success vs failure). Random assignment to groups would assure freedom from contamination by extraneous factors.

Both the cognitive and motor tasks would be preceded by pretests designed to establish the self concept appropriate to the assigned treatment. Both tasks would consist of seven trials in which the subject would be asked for best locations of drives, walks, trees, shrubs on sketches of property lots and houses. After each performance the subject would be given a success or failure score, again depending on treatment assigned.

Measures recorded for each performance would include: a) goal level set for next performance after present trial was evaluated, b) attempts made to improve performance through study or practice between trials, c) affect reported on "Trying to Achieve" scale administered at conclusion of experiment.

Conducting the experiment proved impossible during the months proposed in the contract; this aspect of the research had to be abandoned.

Pretesting of Experiment. Pretesting of experimental procedure entailed use of the motor and cognitive tasks with 18 high school boys and girls. Two experimenters tested simultaneously during a 45-minute period with ten minutes allowed for administering the "Trying to Achieve" scale at the end. One administered the cognitive task; the other, the motor one. The students reacted positively to the tasks and seemed to find them challenging but not too difficult. In the 35-minute time span for each subject, a maximum of seven performance attempts was possible. Previous experimentations using ten trials showed high stability of response, which would seem to indicate that fewer trials would obtain an accurate assessment.

Unnecessary time was found to be used in the motor task by the need for students' removing pins from the pegboard before proceeding to the next

trial. This was resolved by using two pieces of board (12 x 9), thus allowing the experimenter to remove pegs from one while the student went on to subsequent performance without loss of time. A second change in the motor task involved revising the pretest so that it more closely parallels the actual task. The subject forms letters with pegs, using both hands in a manner similar to the peg-insertion techniques required in the task itself. Task instructions appear in the Appendix.

Instrument Validation

Construct Validity: Experimental Support of Hypotheses. Plans for analysis of data called for breakdown within each treatment group according to sex and SES level of student. Information on which SES determination was to be made was collected from the students prior to the proposed experimentation.

Analysis of covariance using, in turn, the means of aspired goals, effort scores, and affect scores would yield the significance of each treatment variable in accounting for response variations among treatment groups, subdivided according to SES level and sex with grade point average controlled. Validation of the instrument as a measure of motivation would be provided if the data it yields support the hypothesized effect of high self concept, success and task relevance for vocational interest. Furthermore, if the other measures were found to be related to motivation, then similar results would be expected in F-values when data based on aspired goals and effort were used.

Concurrent Validity: Proposed Correlation with Other Instruments.

When the measurement of motivation in a controlled setting did not appear feasible, alternative plans were made to measure in the natural environment of the school. Two published tests of motivation were chosen as criterion tests, one a projective and the other a self-report inventory. Use of a

disguised device, French's Test of Insight, to validate the "Trying to Achieve" measure, a self-reporting device, poses the problem of difference in approach. Research has found, however, that effort correlates positively with data from a projective device and not with data from a direct measure. In addition, the projective approach merits use as a criterion because of its reputation for discriminating among high and low need-achievers.

Correlation of data derived from measures employing similar direct approaches would seem to have merits of its own despite the above-mentioned failure of self-report devices to correlate with effort. Finger's Personal Values Inventory has items loading on a persistence factor which should be related to striving.

In order to demonstrate the power of the instrument to distinguish between individuals of high and low motivation, both regents and nonregents students were sought. Efforts to obtain such a population proved fruitless and validation plans had to be abandoned.

Instrument Scoring (Revised 20-Item)

Two possibilities are offered for scoring the "Trying to Achieve" measure. Plan A (see Appendix) involves consideration of Krathwohl's rationale only. Supposedly the items vary in degree of internalization of affect, thus embodying increasing consistency and commitment. Individuals having a low level of commitment may occasionally act on a certain belief but a set to respond will be found only in those who score highest on test items scaled according to Krathwohl's taxonomy. Individuals with lowest scores should have accepted only items low on the scale, thereby reflecting little or no commitment and internalisation.

Plan B incorporates Maslow's hierarchy of motives into the scoring system. In the "Trying to Achieve" instrument, striving is regarded at the

lower levels as directed toward achievement for its own sake. The goals toward which Maslow's motives are directed are perceived as fulfilling the criteria of values as defined by Krathwohl. That is to say, Maslow's motives are conceived of as coming into existence at the 4.1 or conceptualization-of-a-value level. Plan B scoring, therefore, differs from A at the higher levels only.

Analysis of student responses according to the scoring systems described above is a complex process, and therefore time consuming. The investigator is attempting to write a computer program to facilitate scoring.

Concluding Statement

The investigator believes that, if scores from the three motivation tests referred to in the study fail to show significant correlations, the "Trying to Achieve" instrument still should be tested in the experimental situation. The latter offers a consistent and immediate stimulus for the motivational responses: intention, effort and affect. One might more justifiably expect clearer evidence of striving in the controlled setting than in a generalized school milieu.

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In answering Part I keep in mind the course you have been taking in Health. You are being asked how hard you studied and why in the course. A few of the questions on the other hand, give you a specific situation to use as the basis for your answer.

Examples:

1. I work hard because I have to in order to be sure to pass.

Always (true) Usually (true) Sometimes (true) Rarely (true) Never (true)

2. I willingly work hard because I want to be sure to pass.

Always Usually Sometimes Rarely Never

3. I believe in working hard in order to be sure of passing.

Strongly Agree Agree Doubtful Disagree Strongly Disagree

Situation questions--Multiple-Choice:

4. John's class is setting up a tutoring service. There is much work and no pay involved in the tutoring. What would you do? (Choose one)

- A. I would tutor because the experience would help me become a better-rounded person.
- B. I would tutor because the class would like me better if I cooperated.
- C. I would tutor because (or if)
- D. I would not tutor.

1. I try to get others to believe that working hard is valuable in raising one's status in the classroom.

Always Usually Sometimes Rarely Never

2. Working hard to achieve is valuable when it makes me better liked by others.

Strongly Agree Agree Doubtful Disagree Strongly Disagree

3. I'll work hard, if necessary, to be sure that I'll pass.

Always Usually Sometimes Rarely Never

4. I am willing to work hard if it helps me to make the most of myself.

Always Usually Sometimes Rarely Never

5. I get a "kick" out of working hard because it makes me more sure of passing.

Always Usually Sometimes Rarely Never

6. I work hard if it's necessary in order to keep some people happy.

Always Usually Sometimes Rarely Never

7. I try to get others to believe that working hard is valuable because it brings out the best in oneself.

Always Usually Sometimes Rarely Never

8. Two courses that Mary is taking are very difficult for her. In both courses there is extra credit that can be gained by working on special projects. What would you be likely to do in her place? (Choose one)

- A. I would do the extra credit that I considered more likely to develop my talents.
- B. I would do the extra credit in the course I felt more likely to fail.
- C. I would do the extra credit if
- D. I would not do the extra credit in either course.

How sure are you of the way you feel above?

Very certain Slightly doubtful Very doubtful

9. Mike has reports to give in two courses. He has only one evening to prepare. If you were in his place what would you do? (Choose one)

- A. I would work hard on both in order not to let anyone down.
- B. I would work hard on both in order not to lose the respect of others.
- C. I would work hard because (or if)
- D. I would not work hard because

How sure are you of the way you feel above?

Very certain Slightly doubtful Very doubtful

10. Sue is planning to do something after school that she especially enjoys. She is finding it very difficult to concentrate on the report that she is expected to give in class next day. If you were in her place what would you do? (Choose one)

- A. I would work hard because I feel more secure when prepared.
- B. I would work hard because by reporting I am contributing to the class.
- C. I would work hard because (or if)
- D. I would not work hard on the report.

How sure are you of the way you feel above?

Very certain Slightly doubtful Ver doubtful

11. I believe in the value of working hard when other people are likely to respect me for it.

Strongly Agree Agree Doubtful Disagree Strongly Disagree

12. I am willing to work hard if it keeps me from worrying about failing.

Always Usually Sometimes Rarely Never

13. I work hard because I have to or else people will look down on me.

Always Usually Sometimes Rarely Never

14. I believe that working hard is valuable when it allows me to develop my talents fully.

Strongly Agree Agree Doubtful Disagree Strongly Disagree

15. I work hard voluntarily in order that teachers, parents, and friends will like me.

Always Usually Sometimes Rarely Never

16. I believe that working hard is valuable for the feeling of security it gives.

Strongly Agree Agree Doubtful Disagree Strongly Disagree

17. I believe so strongly that working to achieve is worth the security it brings that I try to convince others of it.

Always Usually Sometimes Rarely Never

18. I get satisfaction out of working hard because it helps me to develop my abilities.

Always Usually Sometimes Rarely Never

19. I work hard of my own accord in order that others will think well of me.

Always Usually Sometimes Rarely Never

20. You are taking a course in which only a final exam is given. You are planning to study alone the night before. Now, one week before the exam, Bob is on the phone asking you to study for the exam with him tonight. What would you do about tonight if you were sure you should study the night before?

- A. I would study tonight with Bob if I thought others would think well of me for doing it.
- B. I would study tonight with Bob if I thought we'd both be better off by doing it.
- C. I would study tonight with Bob if
- D. I would not study tonight with Bob.

How sure are you of the way you feel in the preceding question?

Very certain Slightly certain Very doubtful

21. It has been a tiring day for Jack at school. He still has to prepare a long and involved treasurer's report for a class meeting tomorrow. It will take hours. If you were in his place what would you do? (Choose one)

- A. I would work hard to do it because I value the chance to develop my abilities.
- B. I would work hard to do it because I value the friendship of the class.
- C. I would work hard to do it because (or if)
- D. I would not work hard because

How sure are you of the way you feel above?

Very certain Slightly doubtful Very doubtful

22. A contest is planned by the class for a week from today in order to discover which of two teams knows more about the course. Some are studying for it; others are not. What would you do? (Choose one)

- A. I would work hard for it because I want to feel sure of myself in the contest.
- B. I would work hard for it because I want to gain the approval of my teammates.
- C. I would work hard for it because (or if)
- D. I would not work hard because

How sure are you of the way you feel above?

Very certain Slightly doubtful Very doubtful

23. I have such a strong belief that working hard together is rewarded by closer friendships that I try to convince others of it.

Always Usually Sometimes Rarely Never

24. I get satisfaction out of working hard when it makes others respect me.

Always Usually Sometimes Rarely Never

25. It's said that people should develop all their talents; so I try.

Always Usually Sometimes Rarely Never

26. I enjoy working hard when accomplishment is likely to make others like me better.

Always Usually Sometimes Rarely Never

27. I am so convinced that working to achieve something is worth the esteem it brings that I do my best to get others to believe it.

Always Usually Sometimes Rarely Never

28. I believe in working hard if it means I will be better liked by my parents (or friends).

Strongly Agree Agree Doubtful Disagree Strongly Disagree

29. I work hard because I have to or else worry about failing.

Always Usually Sometimes Rarely Never

30. No one has to encourage me to work hard; I do it because I want to develop my talents.

Always Usually Sometimes Rarely Never

31. I get real satisfaction out of working hard because it gives me a sense of security.

Always Usually Sometimes Rarely Never

32. I work hard because I have to in order to keep my parents happy.

Always Usually Sometimes Rarely Never

33. I am so convinced that by working hard one can make the most of himself that I try to get others to believe it too.

Always Usually Sometimes Rarely Never

34. Alice is faced with exams in two difficult subjects. She knows that there is time to study only one to the point where she understands it well. In her situation what would you do? (Choose one)

- A. I would work hard on the one I felt more likely to fail.
- B. I would work hard on the one that I saw as more likely to develop my abilities.
- C. I would work hard
- D. I would not work hard because

How sure are you of the way you feel above?

Very certain Slightly doubtful Very doubtful

35. I find myself with very little ambition to study on some days. I am likely

- A. to work hard if others would think better of me for doing it.
- B. to work hard if others would like me better for doing so.
- C. to work hard if
- D. not to work hard.

How sure are you of the way you feel above?

Very certain Slightly doubtful Very doubtful

36. If there is a big event coming up and I am finding it difficult to work hard, I would be more likely

- A. to study if my parents (or friends) liked me better for doing so.
- B. to study if I felt I was likely to fail the course.
- C. to study if
- D. not to study.

How sure are you of the way you feel above?

Very certain	Slightly doubtful	Very doubtful
--------------	-------------------	---------------

37. Working hard is worthwhile when it brings me the esteem of others.

Strongly Agree	Agree	Doubtful	Disagree	Strongly Disagree
----------------	-------	----------	----------	-------------------

38. I work hard willingly in order to be positive of passing.

Always	Usually	Sometimes	Rarely	Never
--------	---------	-----------	--------	-------

39. The world more or less expects every respectable person to achieve something; so I try.

Always	Usually	Sometimes	Rarely	Never
--------	---------	-----------	--------	-------

40. I really believe in working hard when it helps me reach maximum development.

Strongly Agree	Agree	Doubtful	Disagree	Strongly Disagree
----------------	-------	----------	----------	-------------------

41. I am willing to work hard if it makes others like me.

Always	Usually	Sometimes	Rarely	Never
--------	---------	-----------	--------	-------

42. Working hard is valuable because it protects me from failing.

Strongly Agree	Agree	Doubtful	Disagree	Strongly Disagree
----------------	-------	----------	----------	-------------------

43. I try to get others to believe that working hard is valuable because it reduces the fear of failing.

Always	Usually	Sometimes	Rarely	Never
--------	---------	-----------	--------	-------

44. I enjoy working hard because it enables me to make the most of what I have.

Always	Usually	Sometimes	Rarely	Never
--------	---------	-----------	--------	-------

45. I am agreeable to working hard when achievement is likely to bring me the respect of others.

Always	Usually	Sometimes	Rarely	Never
--------	---------	-----------	--------	-------

46. Jim generally plays ball after school and he does not want to miss for anything. Today he is being asked by the class to stay after school to work on a project. What would you do in this situation? (Choose one)

- A. I would work hard because I value the opinions others have of me.
- B. I would work hard because I value the personal growth that is possible.
- C. I would work hard because (or if)
- D. I would not stay after class to work.

How sure are you of the way you feel above?

Very certain Slightly doubtful Very doubtful

47. There is a course I am taking in school that is the hardest I've ever had to cope with. If I want to pass it I'll have to work long and hard. I'd be likely

- A. to work hard if the course will help me grow as a person.
- B. to work hard if I could get some friends to study with me.
- C. to work hard if
- D. not to work hard in the course.

How sure are you of the way you feel above?

Very certain Slightly doubtful Very doubtful

48. I've got a job that I'm not confident I can do well but other people are depending on me to do it. I would

- A. work hard because that would give me a feeling of security.
- B. work hard because that would make others respect me.
- C. work hard because
- D. not work hard because

How sure are you of the way you feel above?

Very certain Slightly doubtful Very doubtful

49. I try to get others to believe that working hard together is valuable because it makes them better friends.

Always Usually Sometimes Rarely Never

50. I get a thrill out of working hard when others respect me for it.

Always Usually Sometimes Rarely Never

51. I work hard, not because I want to, but because people expect a person to make the most of himself.

Always Usually Sometimes Rarely Never

52. I get a sense of satisfaction out of working hard when it makes my parents like me better.

Always Usually Sometimes Rarely Never

Part II

Answer Part II without reference to any specific course but with school in mind. As before, some questions give specific situations in which a choice is to be made.

Examples:

1. Working hard is more important for college students than for teenagers.

Strongly Agree Agree Doubtful Disagree Strongly Disagree

2. Which of the following is a good reason for the above statement?

- A. Some people need money more than others.
- B. Some people need status more than others.
- C. Neither is a good reason for the statement.

How easily did you decide on the above response?

Much difficulty Little difficulty No hesitation

53. As a general rule working hard is essential for success.

Strongly Agree Agree Doubtful Disagree Strongly Disagree

54. Which one of the following do you believe gives a good definition of success?

- A. Having money in the bank
- B. Having developed one's abilities
- C. Neither is a good definition as far as I'm concerned.

How easily did you decide on the above response?

Much difficulty Little difficulty No hesitation

55. Working hard helps to satisfy human needs.

Strongly Agree Agree Doubtful Disagree Strongly Disagree

56. Which one of the following do you believe is important enough to work for?

- A. The need one has for others' affection
- B. The need one has for others' approval
- C. Neither one is important to me.

How easily did you decide on the preceding response?

Much difficulty Little difficulty No hesitation

57. Working hard should be considered more a privilege than a trial.

Strongly Agree Doubtful Disagree Strongly Disagree

58. Which one of the following do you believe justifies the above statement?

- A. Working hard brings one closer friendships.
B. Working hard brings one a steady income.
C. Neither justifies the above statement as far as I'm concerned.

How easily did you decide on the above response?

Much difficulty Little difficulty No hesitation

59. What one is willing to work hardest to attain reflects his philosophy of life.

Strongly Agree Doubtful Disagree Strongly Disagree

60. Which one of the following do you believe is worth working for?

- A. The praise that others give for a job well done
B. The personal growth that is involved in doing a job well
C. Neither one seems worth working hard for.

How easily did you decide on the above response?

Much difficulty Little difficulty No hesitation

61. Working hard should be the rule for the highly talented as well as for those who are less talented.

Strongly Agree Doubtful Disagree Strongly Disagree

62. The above is more acceptable if working hard

- A. brings assurance that one will have all he needs.
B. makes one esteemed by fellow workers and family.
C. Neither of the above reasons would make working hard worthwhile.

How easily did you decide on the above response?

Much difficulty Little difficulty No hesitation

63. Society is functioning at its optimum only if everyone does his best work.

Strongly Agree Doubtful Disagree Strongly Disagree

64. When are you more likely to work hard?

- A. When working hard will make others like me better
- B. When a job challenges me to improve along the way
- C. Neither seems a good reason for working hard.

How easily did you decide on the above response?

Much difficulty

Little difficulty

No hesitation

65. John is asked to be a leader of a group of cub scouts. He knows that it will involve working hard but believes he is capable and has the time. What should he do in the situation?

- A. Accept, because a person in such a job becomes well-known in his town.
- B. Accept, because later on such a person could always fall back on club work as an occupation if needed.
- C. Accept, because scouting experience can help a person get along with others on a special basis.
- D. Accept, because through such service a person develops his abilities and contributes to the general welfare.
- E. Not accept

How would you probably feel about the reason chosen in the preceding question?

Strongly
Agree

Agree

Doubtful

Disagree

Strongly
Disagree

66. Mary has earned her first paycheck and wants to use it wisely. She has no financial obligations to her parents and regards herself as having the basic necessities of life. Which of the following would you advise her to consider?

- A. Decide how much she wants to save each month.
- B. Decide on the clothes she needs to live up to her career.
- C. Join the clubs that would offer her social life.
- D. Enroll in a course that leads to self-development.

Do you personally believe the choice above is worth the hard work that goes into earning a paycheck?

Strongly
Agree

Agree

Doubtful

Disagree

Strongly
Disagree

67. Bob has had several conferences with the guidance counselor about his aptitude for various jobs around town. Tests show that he is capable of doing quite a variety of tasks and has broad interests. Bob has no plans for college. Below are the alternatives as Bob sees them. He asks your advice.

- A. A clerical job offering permanent employment for the right person
- B. An assistant in a small plant where working conditions are friendly
- C. A floorwalker in the town's leading store
- D. A repair and swap shop of his own

Bob asks you whether you believe such a job is really worth working for. What would you say?

Strongly Agree Agree Doubtful Disagree Strongly Disagree

68. The boss knows that Tom is working as hard as he can and is turning out a top grade product. He wants to make the job more attractive to Tom in order to be sure of keeping him. Tom's boss is considering the following alternatives and asks you which you would suggest.

- A. Offering him assurance of having his job despite possible layoffs
- B. Inviting him and his best buddies to dinner or sports events with the boss
- C. Giving him an office complete with brass name plate on desk
- D. Giving him freedom to develop his own ideas in his work

Tom's boss then asks you if you would increase your efforts on the job in order to get the alternative you chose above.

Strongly Agree Agree Doubtful Disagree Strongly Disagree

69. Success is worth the effort required to reach it.

Strongly Agree Agree Doubtful Disagree Strongly Disagree

70. What is your idea of success?

- A. When one earns enough to feel secure and has some money to spare
- B. When one's job gives him everything he needs and challenges him too
- C. Neither describes success as far as I'm concerned.

How easily did you decide on the above response?

Much difficulty Little difficulty No hesitation

71. Working hard brings the individual closer to his goals.

Strongly Agree Agree Doubtful Disagree Strongly Disagree

72. Which one of the following goals do you believe in working hard for?

- A. Friendship
- B. Prestige
- C. I would not be willing to work hard for either one.

How easily did you decide on the above response?

Much difficulty Little difficulty No hesitation

73. The benefits of working hard far outweigh its disadvantages.

Strongly Agree Agree Doubtful Disagree Strongly Disagree

74. Which one of the following do you believe is a benefit of working hard?

- A. The guarantee that it offers against poverty and want
- B. The possibility that it offers for being loved by one's fellows
- C. Neither possibility seems like much of a benefit to me.

How easily did you decide on the above response?

Much difficulty Little difficulty No hesitation

75. Life is made more meaningful by working hard because it helps one come to realize what his values are.

Strongly Agree Agree Doubtful Disagree Strongly Disagree

76. Which one of the following do you believe makes working hard worthwhile?

- A. Having prestige over others as a result of the work one does
- B. Becoming all that one can be as a result of the work he does
- C. Neither would make working hard worthwhile for me.

How easily did you decide on the response to the last question?

Much difficulty Little difficulty No hesitation

77. Everyone should work hard enough to reach the highest goals he can.

Strongly Agree Agree Doubtful Disagree Strongly Disagree

78. Which of the following goals would you work your utmost to attain?

- A. Freedom from hunger and bodily harm
- B. Respect and admiration of others
- C. Neither would make me exert myself to the utmost.

How easily did you decide on the above response?

Much difficulty Little difficulty No hesitation

79. The ideal world is one in which all strive to do their best.

Strongly Agree Agree Doubtful Disagree Strongly Disagree

80. In which case below are you more likely to do your best?

- A. When I am working with others and can help them
- B. When I am working independently and can go as far with the job as I like
- C. Neither would be sufficient to make me do my best work.

How easily did you decide on the above response?

Much difficulty

Little difficulty

No hesitation

81. A community service program has asked Frank to assist in their campaign of helping underprivileged children in the area. He would have people working under him. He knows he can do it if he works hard enough. If you were Frank what would you do?

- A. Accept, because such a person gets to be well-known, at least locally.
- B. Accept, because such a job gives one experience that may help him get work later on.
- C. Accept, because such a job allows one to have many friends.
- D. Accept, because community service is a way of helping humanity.
- E. Not accept.

Would you personally accept for the reason chosen above?

Strongly Agree

Agree

Doubtful

Disagree

Strongly Disagree

82. Alex uses much of his earnings to pay for living expenses and other essentials. He decides to allow a certain amount for extras. He considers the following worthwhile but has enough money for only one. Which one of them would you advise him to choose?

- A. Setting up an emergency fund for himself
- B. Renting in a better neighborhood
- C. Doing things for his friends
- D. Learning to do something worthwhile

How would you feel if you were making the above choice for yourself?

Strongly Agree

Agree

Doubtful

Disagree

Strongly Disagree

83. Mr. Jones runs a small business. He is interested in having his son, Bill, take over some day. He offers Bill a variety of jobs after graduation all with the same pay. Bill asks for your suggestion from the following.

- A. Working in the delivery room where many of his friends are
- B. Working in the main office where he'll be seen by important people
- C. Working in packaging where he's likely to make fewer mistakes
- D. Working in production where he's likely to be most challenged

How would you feel about the above choice for yourself?

Strongly Agree

Agree

Doubtful

Disagree

Strongly Disagree

84. The president of United Can Company knows that Louis Strong, an expert in computers, is moving into the locality. The president would like to get Louis interested in working for the company. He intends to approach Louis on the matter but isn't sure how to go about it. He asks your opinion.

- A. Offer him a job on a permanent basis with free health insurance.
- B. Describe the job as the top ranking one in the company.
- C. Offer him the opportunity to develop computing facilities as he likes.
- D. Describe the job in terms of harmonious management-employee relations.

Would the choice you made for Louis attract you to the job?

Strongly Agree	Agree	Doubtful	Disagree	Strongly Disagree
-----------------------	--------------	-----------------	-----------------	--------------------------

12. Working hard A. makes one better liked by others.
 B. makes one more respected by others.
- 12a How certain are you of the above choice?
Absolutely Very Fairly Slightly Not at all
13. Working hard A. makes one respected by others.
 B. guarantees success in a course or job.
- 13a How certain are you of the above choice?
Absolutely Very Fairly Slightly Not at all
14. Working hard A. guarantees success in a course or job.
 B. makes one better liked by others.
- 14a How certain are you of the above choice?
Absolutely Very Fairly Slightly Not at all
15. Working hard A. enables a person to develop his abilities fully.
 B. guarantees success in a course or job.
- 15a How certain are you of the above choice?
Absolutely Very Fairly Slightly Not at all
16. Working hard A. enables a person to develop his abilities fully.
 B. makes one more respected by others.
- 16a How certain are you of the above choice?
Absolutely Very Fairly Slightly Not at all
17. Working hard A. makes one better liked by others.
 B. enables a person to develop his abilities fully.
- 17a How certain are you of the above choice?
Absolutely Very Fairly Slightly Not at all
18. Imagine yourself twenty years from now at a school meeting in which attitude toward work is being discussed. What would your major reaction be?
A. Students do not want to work and should not be made to.
B. Good grades guarantee acceptance for a job or college.
C. Having ability makes a person needed and wanted by others.
D. Achievement gives a person a chance to rise to the top.
E. Achievement gives a person a chance to become independent.
19. In a game or leisure-time activity I would likely
A. go about it half-heartedly.
B. try to develop as best I could any skill I had.
C. try as much as I thought would please others in the group.
D. try to do well enough to be regarded as a top-notch player.
E. try hard enough that I felt sure of a chance of winning.
20. When I am confronted with a job I am likely to act on the belief that
A. most jobs are not worth much effort.
B. working hard brings me praise and admiration for achievement.
C. working hard strengthens ties with people who mean a lot to me.
D. working hard assures me of the basic necessities of life.
E. working hard gives me the opportunity to develop my abilities.
21. Seeing someone at a desk piled high with books makes me think that
A. some people work too hard.
B. the kinds of friends one has and wants will determine the amount of work he does.
C. some preparation gives a person the reassurance he needs to get along in life.
D. working hard gives a person the opportunity he needs to make a name for himself.
E. life gives a person the chance to make the most of himself if he continuously tries to improve.

NAME _____ Grade _____

TRYING TO ACHIEVE IN SCHOOL
(A research device developed at Cornell)

DIRECTIONS: Carefully read and answer the following items; put an X on the choice that best describes you. There are no right or wrong answers.

Examples:

a. I work hard in everything I do
Always ~~Generally~~ Sometimes Seldom Never

b. I work hardest when it is likely to result in
A. being liked by classmates
~~B. raising others' opinion of me~~
C. being sure of passing
D. broadening my point of view E. can't decide

1. I work hard to achieve in a course only when I am forced to do so.
Always Generally Sometimes Seldom Never

2. I work hard to achieve in a course even though I do not feel that anyone or anything is forcing me to do so.
Always Generally Sometimes Seldom Never

3. I work hard to achieve in a course because of the satisfaction and enjoyment it gives me to do so.
Always Generally Sometimes Seldom Never

4. Working hard to achieve in all courses is a belief I try to live by.
Always Generally Sometimes Seldom Never

5. Working hard to achieve in all courses has become a habit with me.
Always Generally Sometimes Seldom Never

6. Trying to prove to others the importance of working hard to achieve in all courses makes me study harder than ever.
Always Generally Sometimes Seldom Never

From each set below, check one alternative that is a very important reason why you now work hard in school. Check D if none is really a major reason.

7. A. to gain maximum security in life
B. to prepare for my life's work
C. to get passing grades
D. None is a major reason.

8. A. to make the honors list
B. to feel really worthwhile in life
C. to develop competence
D. None is a major reason.

9. A. to be able to work with others.
B. to be accepted by my class group
C. to feel I belong to life around me
D. None is a major reason.

10. A. to mature as a total person
B. to make something of myself
C. to become all I possibly can be
D. None is a major reason.

I WORK HARDEST WHEN IT IS LIKELY TO RESULT IN (check one):

11. A. pleasing others
B. personal growth
C. making the grade (in college or job)
D. higher status with peers
E. can't decide
12. A. a feeling of security
B. a sense of belonging
C. a feeling of self-worth
D. becoming all I can be
E. can't decide
13. A. being accepted by others
B. self-respect and being respected by others
C. independence and being given responsibility
D. being sure of meeting future demands
E. can't decide
14. A. freedom from worry about failing
B. freedom from feeling unwanted by others
C. freedom from feeling inadequate
D. freedom from the need to conform to others' thinking
E. can't decide
15. A. being better able to carry out responsibilities
B. a guarantee of having the necessities of life
C. closer ties with others
D. getting the respect of others
E. can't decide
16. A. feeling of cooperation
B. sense of competence
C. feeling of safety
D. sense of self-fulfillment
E. can't decide

CHOOSE ONE answer in each below:

17. Imagine yourself a parent twenty years from now at a school meeting in which attitude toward work is being discussed. What would your major reaction be?
A. If a student does not want to work, he should not be made to.
B. If one does not work, he won't be sure of having what he needs.
C. If one does not work, he won't amount to much to anyone.
D. If one does not work, he won't make the most of himself.
E. If one does not work, he won't get anywhere in life.
F. can't decide
18. In a game or leisure-time activity I would likely
A. consider it as just a game, and let it go at that.
B. try to show that I am a better-than-average player.
C. try to show that I am with the crowd in what it wants.
D. play hard because I can gain something from most experiences.
E. play hard because I want to be sure of doing ok.
F. can't decide
19. When I am confronted with a difficult job, I am likely to
A. hope I can do a creditable job.
B. regard it as an obligation and a challenge.
C. think that a friend would come in handy.
D. wish I felt certain of making out alright.
E. think that such jobs demand too much of a person.
F. can't decide
20. Seeing someone at a desk piled high with books makes me think that
A. some people want to understand all views.
B. some people want to contribute their share.
C. some people want to be sure of being prepared.
D. some people want to do outstanding work.
E. some people miss all the joy of living.
F. can't decide

**ALTERNATE PLANS FOR SCORING
TRYING TO ACHIEVE TEST**

Items 1-6

Krathwohl Levels:

1 (2.1) 2 (2.2) 3 (2.3) 4 (3.1) 5 (3.2) 6 (3.3)

PLAN A:

<u>Responses:</u>	<u>Always</u>	<u>Generally</u>	<u>Sometimes</u>	<u>Seldom</u>	<u>Never</u>
Item 1 Score:	0	1	2	3	4
Item 2-6 Score:	4	3	2	1	0

PLAN B:

Above scores are multiplied by 4.

Items 7-10

<u>Items</u>	<u>Krathwohl Level</u>	<u>Item Alternatives and Values</u>			
7	4.1	D	C	B	A
8		D	A	C	B
9		D	A	B	C
10		D	B	A	C

4.1 SCORE: Sum of item values of items 7 through 10

PLAN A: Each value in column:

PLAN B: Each value in column:

0	.25	.50	1.0
0	1.0	2.0	4.0

Items 11-16

<u>Items</u>	<u>Krathwohl Level</u>	<u>Item Value</u>	<u>Maslow Level of Alternatives</u>			
			<u>IV</u>	<u>III</u>	<u>II</u>	<u>I</u>
11	4.2	.25	B	D	A	C
12		1.0	D	C	B	A
13		.75	C	B	A	D
14		.25	D	C	B	A
15		.75	A	D	C	B
16		1.0	D	B	A	C

4.2 SCORE: Sum of item values where responses are of same Maslow level
If total points on 11-16 is: Score is:

	<u>PLAN A</u>	<u>PLAN B</u>			
		<u>IV</u>	<u>III</u>	<u>II</u>	<u>I</u>
3.5 to 4.0 (at 1 Maslow level)	4	16	15	14	13
2.5 to 3.4 (at 1 Maslow level)	3	12	11	10	9
1.5 to 2.4 (on each of 2 levels)	2	Sum of appropriate two below			
1.5 to 2.4 (at 1 Maslow level)	1	4	3	2	1

Items 17-20

<u>Items</u>	<u>Krathwohl Level</u>	<u>Item Value</u>	<u>Maslow Level of Alternatives</u>			
			<u>IV</u>	<u>III</u>	<u>II</u>	<u>I</u>
17	5.1	1	D	E	C	B
18		1	D	B	C	E
19		1	B	A	C	D
20		1	A	D	B	C

5.1 SCORE: Sum of item values where responses are of same Maslow level
If total points on 17-20 is: Score is:

	<u>PLAN A</u>	<u>PLAN B</u>			
		<u>IV</u>	<u>III</u>	<u>II</u>	<u>I</u>
4 (1 Maslow level)	4	16	15	14	13
3 (1 Maslow level)	3	12	11	10	9
2 (on each of 2 Maslow levels)	2	Sum of appropriate two below			
2 (1 Maslow level)	1	4	3	2	1

Your Name _____

Male _____

Female _____

(check one)

Grade: _____

The following information is wanted in order to get a picture of the total school group. Thank you.

1. Check whether your father (or guardian) works for

the government _____

an organization _____

a company or firm _____

a small business _____

other _____

2. Describe briefly below the kind of work he does.

3. Amount of father's (guardian's) education: Fill in number of years:

Grades 1 through 12 _____ yrs.

College _____ yrs.

Beyond College _____ yrs.

INSTRUCTIONS (MOTOR)

I am part of a team that is doing research in education and we are asking you to take a test today. This is not a psychological test and the results will not be recorded anywhere in the school system. We are trying to find out how adolescents differ in intellectual and motor abilities. Each person is placed randomly into a judgment or motor task situation. You have been assigned to the motor group. This means you will be asked to put pegs into holes as shown on diagrams, using one or two hands. Experts have scored many such performances in the past and you will be evaluated according to their records.

All students are being asked to work in the area of landscaping. We have chosen this because we feel it is relatively new to most of you and should be of equal interest to boys and girls. In the test you will be asked to place trees and shrubs and to represent roadways and paths on pegboard.

Pretest

The test will begin in a few moments. Since the task is new we want to pretest you to find out what your potential is. Here are two letters; use pegs to outline them on the pegboard. While your left hand is constructing one, use your right hand for the other. Both hands must work in unison. Use large pegs for one and short pegs for the other letter. Speed, accuracy, and rhythm will be considered. According to a scoring plan worked out by experts, you can expect your score on the test to be somewhere around 25-30 (15-10). Write that here. As you can see on the scoresheet you can expect to do above (below) average on the test.

Test Now let me describe the task for you. You will be given at least 7 trials, more if time permits. On each you should fill in alternate holes between these four corner pegs, using large pegs. This represents the edge of this page. At the same time, with the other hand, you should outline the drive and walk using small pegs. Pegs must be inserted using both hands simultaneously. You will be judged for dexterity (nimbleness), rhythm, coordination, speed and accuracy.

Students are being randomly selected for testing using either related diagrams or unrelated ones. You see the word Related (Not Related) in front of you. I want to test you by using diagrams related (unrelated) to your occupational choice. What do you think you will be doing when your schooling is over?

Now let's begin. (S performs once; allow about 1 minute for performance.)*
Your score is _____. Write it here. Now I'd like to have you state below it the score you will be trying to make on the next trial. This has nothing to do with the score you receive, of course. While I am rechecking your score and getting the next diagrams, you may relax or practice inserting pegs according to the letters and hands shown on these cards. Practicing these has been found to help in raising one's score. It is possible to make 40 points. I'll leave the letters here for you to practice with if you want to do so.

* On trial 1 reinforce pretest score.

In future trials you should also try to use these pegs with yarn attached. Use them as plantings and proceed by twisting the yarn around the peg before inserting it in the location shown. Use short pegs for low shrubs, short pegs with tails as high shrubs, long pegs as trees. Use both hands for this part, continuing until time is called.

You will be given a final report when the testing is finished in the area. Until we see all the scores in this locality, we cannot really evaluate your score. Your principal knows these scores are for research purposes only. Again, we do not consider this an aptitude test.

even if you are not a member of the organization... you should be able to do this... if you are not a member... you should be able to do this... if you are not a member... you should be able to do this...

one of the things we are looking for... is the ability to... you should be able to do this... if you are not a member... you should be able to do this... if you are not a member... you should be able to do this...

I found it very interesting... you should be able to do this... if you are not a member... you should be able to do this... if you are not a member... you should be able to do this...

It is very interesting... you should be able to do this... if you are not a member... you should be able to do this... if you are not a member... you should be able to do this...

It is very interesting... you should be able to do this... if you are not a member... you should be able to do this... if you are not a member... you should be able to do this...

It is very interesting... you should be able to do this... if you are not a member... you should be able to do this... if you are not a member... you should be able to do this...

It is very interesting... you should be able to do this... if you are not a member... you should be able to do this... if you are not a member... you should be able to do this...

INSTRUCTIONS (COGNITIVE)

I am part of a team that is doing research in education and we are asking you to take a test today. This is not a psychological test and the results will not be recorded anywhere in the school system. We are trying to find out how adolescents differ in intellectual and motor abilities. Each person is placed randomly into a judgment or motor task situation. You have been assigned to the judgment group. This means you will be asked to make judgments on the basis of information you are given and to explain why you decided as you did. Experts have scored many such performances in the past and you will be evaluated according to their records.

All students are being asked to work in the area of landscaping. We have chosen this because we feel it is relatively new to most of you and should be of equal interest to boys and girls. You will be asked to choose best locations for drives and sidewalks and to place trees and shrubs on the properties.

Pretest

The test will begin in a few moments. Since the task is new we want to pretest you to find out what your potential is. Here are three illustrations of a park with roadways marked. Choose the one you consider best and tell why. Speed, function, and beauty will be considered in scoring. According to a scoring plan worked out by experts you can expect to score around 25-30 (15-10) on the test. Write that here on the score sheet. As you can note from the scoring range, you can expect above (below) average scores on the test.

Test Now let me describe the task for you. You will be given at least 7 trials, more if time permits, involving the proper placement of roads and plants. You have before you some basic landscape principles with illustrations. Read these now. Additional information can be gained by studying the answers to these questions if you like later.

The test consists of three suggested roadways or paths from which you should select the one you think best according to the principles given. Choose the best diagram first and then add plantings. An explanation of your choices will be called for when time is up. You will be scored for speed and accuracy of placement, complexity, integration and depth of explanation.

Students are being selected randomly for testing using either related diagrams or unrelated ones insofar as your future work is concerned. You see the word Related (Not Related) in front of you. I want to test you by using diagrams related (unrelated) to your occupational choice. What do you think you will be doing when your schooling is over?

Begin with these 3. Your score is ____.* Write it here. Now I'd like for you to state the score you will be trying for on the next trial. This has nothing to do with the score you receive, of course. While I am rechecking your score on that trial and choosing your next set of diagrams, you may relax or you may want to study in order to improve your score. Using these charts

* On trial 1 reinforce the pretest score. In order to save time do not ask S for explanation of his choices on this first trial. Allow 1 minute only, if possible.

and these questions with the answers on the reverse has been found helpful in raising one's score. Students seem to do best after jotting down what they learn in their own words. Use back of score sheet if you want to try this. It is possible to make 40 points. I'll leave the study questions here for you to use if you want.

You will be given a final report when the testing is finished in the area. Until we see all the scores in this locality, we cannot really evaluate your score. We hope to study all the results and then report to you through the main office. Your principal knows these scores are for research purposes only. We do not consider this an aptitude test.