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AN EVALUATION OF GROUP GUIDANCE UTILIZING A PROJECTIVE TECHNIQUE WITH TWELVE UNDERACHIEVING ADOLESCENT BOYS.

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AN EVALUATION OF GROUP GUIDANCE UTILIZING A PROJECTIVE TECHNIQUE WITH TWELVE UNDERACHIEVING ADOLESCENT BOYS

by
Sister M. Harriet Sanborn, O.P.

A dissertation submitted in partial fulfillment
of the requirements for the degree of
Doctor of Philosophy in the
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Abstract

AN EVALUATION OF GROUP GUIDANCE UTILIZING A PROJECTIVE TECHNIQUE WITH TWELVE UNDERACHIEVING ADOLESCENT BOYS

by Sister M. Harriet Sanborn

The Problem

This study considered the problem of underachievement in twelve average and above-average adolescent boys. The writer evaluated group guidance utilizing an original projective technique as an approach to their problems. The hypothesis was:

Given six group-guidance meetings in which the participants create a series of projective drawings and verbalizations followed by discussion related to learning and/or the problems of learning the adolescent boy underachiever will:

1. Express inner conflicts of which he may be otherwise unaware and/or with which he may be unable to deal.

2. Work through inner conflicts to the extent of awareness and/or insight.

3. Experience change in attitudes and/or habits of learning.

4. Reflect change in his scholastic achievement.

The Procedure

The method was posited on these assumptions:

1. In group guidance peer support enables the underachiever to attack his problem more comfortably.

2. A projective technique provides for freedom of expression and for release of forces that may be denied expression in real life.

3. A nondirective climate helps release latent forces for growth within the individual.

4. The 5 per cent level of confidence establishes statistical significance for tests applied to the data.

Two questions determined procedural focus:

1. Will the projective device uncover need tensions and resistances that may be factors in the individual underachievement syndrome?

2. Will attitudes and habits conducive to positive changes in learning be effected?

The research design included:

1. A control group matched with the experimental group.

2. Evidence of expressed inner conflicts and/or "working through" them obtained from:

   a. Evaluations of projective scripts by three judges.

   b. Writer's log of testees' behavior and contributions in discussions.

   c. Writer's notes from individual interviews following group meetings.

3. Determining the difference between the differences in the experimental and control groups in respect to attitudes and learning habits and in scholastic achievement by means of:

   a. Early and late percentile scores on the Brown-Holtzman Survey of Study Habits and Attitudes.

b. Teacher ratings on study habits and attitudes prior to and following the experimental experience.

c. Scholastic achievement in content subjects for current and previous semesters.

The Results

Judges' ratings of needs expressed in first and last pairs of projective drawings were statistically significant beyond the 5 per cent level of confidence and sustained the first term of the hypothesis.

Tallies made from analyses of discussion content showed the expression of needs and perceptions of inner conflicts in all group-guidance sessions. The writer admitted their subjectivity and the possibility of contamination in offering them in support of the hypothesis.

Judges' evaluations for awareness of conflict and/or insight showed a mean difference significant at the 1 per cent level of confidence and sustained the second term of the hypothesis.

In the individual interview two-thirds of the boys revealed an awareness of the following factors in learning problems:

1. Student responsibility is key to real learning.
2. Guidance needed in early elementary grades.
3. Resistance to study demands is chronic.
4. Cultural value-pattern is significant.
5. Goals are important for sustaining attention.
6. Peer distractions are strong and mostly detrimental.

The difference between the experimental and control groups in their differences in SSHA percentiles was significant at the 1 per

cent level of confidence. The differences on teacher ratings and scholastic achievement were not statistically significant.

Conclusions

The terms of the hypothesis in respect to maladjustment syndromes central to learning difficulties were clearly supportable. It appears that scholastic achievement change, herein nonsignificant, may be projected as a long-range possibility in view of statistically significant change in study habits and attitudes. Two case studies revealed dramatic possibilities for utilizing group guidance with the projective device for individualized resolutions of underachievement.

ACKNOWLEDGMENTS

The number of persons to whom the writer wishes to express appreciation for encouragement and assistance in the writing of this dissertation is sizeable. Aware of the inadequacy of words to reveal the measure of her obligation she acknowledges a debt of sincere gratitude to each of the following:

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CHAPTER I

THE PROBLEM IN PERSPECTIVE

Underachievement in adolescent boys is not a new problem. In the writer's experience and observation, resistance to study has proved common. Consciously and unconsciously, boys, in particular, frequently rebel against what to them appears to be too much pressure to make them learn. At the same time, college freshmen, reporting on their first-year college experience, often blame high school teachers for "not having made them learn to study." Suggestions for improving the high school curriculum offered by the graduates who have gone directly into the "World of Work" carry many an indictment of similar character. Attempts to investigate the problem have tended to emphasize the dilemma.

The senior high school students whom the writer observed in the Counseling Laboratory of the School of Education at the University of Michigan generally expressed the desire to meet college requirements while admitting more or less deficient study habits. A how-to-study manual and counselor help, plus the student's good will, were no guarantee of arriving at the desired goal. Such an attempt at simplification yielded no answer to the problem.

Some facts stand out clearly, however. Underachievement and average and above-average intelligence are inconsistent. A considerable number of studies have been made in the last thirty years that approach this disparity on the elementary, secondary, and college levels. Some have explored personality and environmental causes. Others have measured the effects of various study

procedures and curriculum approaches. Their findings contribute worthwhile data on the over-all problem, but they do not seem to have met the basic need. The nucleus of the problem appears to have withstood exposure and treatment.

The writer proposed to evaluate a group-guidance approach to the underachievement problem in a given number of adolescent boys. A projective technique to be described later was a feature of the group-guidance situation on the supposition that projective material from an individual adolescent might provide a key to a basic personality maladjustment that might be central to his learning difficulty. The group-guidance medium of the study was designed to afford peer support to the adolescent so that he might be motivated to wrestle more comfortably with his underachievement problem.[1] The nondirective aspect of the environment should enable dynamic forces within an individual to have free rein, assuming that the subject must act from consciousness of his responsibility for a resolution to his learning difficulty if therapy is to be accomplished.[2]

The problem, then, revolves around the extent to which a projective technique used in a group-guidance setup offers an entree to self-understanding of the experiences, judgments, and actions that have determined the individual patterns of study in the given group of underachievers. Two of the questions which are implicit in the problem are: (1) will the projective device uncover need tensions and resistances that may be factors in the individual underachievement syndrome; and (2) will a feed-back in the personality

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[1] Stanley S. Marzolf, Psychological Diagnosis and Counseling in the Schools. New York: Henry Holt and Company, 1956, p. 372.

[2] Percival M. Symonds, Dynamics of Psychotherapy. New York: Grune and Stratton, 1957, p. 375.

effectuate attitudes and habits conducive to positive changes in learning?

The aim of the study was to evaluate the effect of a series of projective group-guidance situations with a group of twelve adolescent boys judged underachievers by their teachers. The evaluation was made in terms of: (1) what expressions and insights into inner conflicts of which the subjects may be otherwise unaware and with which they may have been unable to deal are in evidence, and (2) what changes in learning and attitudes toward learning follow the experimental experience? The procedures and materials from which the writer derived data on the first term include: a series of projective drawings, a log of the discussion periods that followed the drawing exercises, and summaries of each of the individual interviews scheduled for the week following the last group meeting. The judgment on the second term relied on report-card marks for the two semesters and on two measures of study habits and attitudes (Brown-Holtzman, "Survey of Study Habits and Attitudes"[1] percentiles and teacher ratings).

The writer designed the projective device (Appendix A, p. 127) on an ordinary sheet of typing paper. Dividing it into four equal rectangles, she drew a report card simulating a face in the upper left-hand section. An empty "balloon" attached to the side of the mouth provided space for dialogue with a second character to be drawn by the subject. The assumption was that the student would project himself into the character receiving the report card and ventilate suppressed emotional content stimulated by the elements of

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[1] Published by The Psychological Corporation. New York, 1956.

the situation he created in his drawing.[1] Directions for the first drawing amplified the following points:

1. The second character in the script represents the boy or girl who has been given the report card.

2. The class for which the mark is indicated is one "least liked" by the recipient.

3. The mark he has been given in that subject is "not good."

The pattern of this study included a permissive atmosphere in the group-guidance setup with the time following each drawing experience structured so that the subjects might discuss any aspect of the drawings or anything related to adolescent learning that they cared to discuss. The writer kept a log of each boy's behavior and comments. The supposition herein is that needs and tensions uncovered by the adolescent underachiever in his drawing stint might be given further release in discussion and overt behavior.[2]

Each subject found a final opportunity for expressing and working through his inner conflicts in the individual interview held at the conclusion of the group meetings. In structuring it the determination of the following items was foremost:

1. The source of the script material.

2. Any values the subject perceived in the research experience.

3. Judgments on adolescent problems of learning.

4. Percepts of when individual learning difficulties originated.

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[1] David Rapaport, "Projective Techniques and the Theory of Thinking," Journal of Projective Techniques, XVI (September, 1952), 269-75.

[2] Samuel R. Slavson, An Introduction to Group Therapy. New York: The Commonwealth Fund, 1943, pp. 10-25.

5. The individual's awareness of available help.

6. Insights the subject has on his problem and adjustments he is making.

The writer recognized that the individual problem in learning may be revealed as a deep-seated one that calls for prolonged counseling. The experimental program was not designed to meet such complexities and their exploration was necessarily outside the limitations of the research design. At no time was the group-guidance setup perceived as supplanting individual counseling. Nor was it offered primarily as an expedient answer to a widespread demand for educational guidance to promote more efficient study habits and to motivate learning. Its psychological acceptability rested on the fact that the adolescent leans heavily upon peer support and often fears a personal interview.

An objection might be raised questioning whether a group-guidance situation would provide valid data on adolescent resolutions of problems related to learning. In the past much of the group guidance carried on in schools, regardless of the background of the individual director, has reflected the principle that the adolescent must "be shown how to study."[1] This approach has been consistent with students' learning to give back rules in answer to the leader's questions. More often than not the termination of such a procedure finds underachievers either giving lip service to an acceptance of a set of principles for a fresh attack on their problems of learning or, defaulting, being labeled "impossible" or "uncooperative." It is obvious that when the guidance director interprets the material and points out new goals to the underachievers the students are not

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[1]Charles A. Curran, Personality Factors in Counseling. New York: Grune and Stratton, 1945, pp. 15-17.

making individual solutions to learning problems that may be considered valid data for an objective study. That, however, was not the pattern followed in this study.

Rogers deals at length with group counseling in Client-Centered Therapy.[1] The nondirective approach that he develops appears to justify a consideration of group-guidance as the subject for objective research. The guidance director in this procedure, with care and professional skill, lets the individual student assume full responsibility for his learning problems. Total freedom of expression marks each meeting. In the group setting the adolescent finds both opportunity and encouragement to express his difficulties. In the presence of others with similar problems, he is more likely to work out procedures for solving his difficulties in keeping with his unique pattern of behavior. In this way is fulfilled the conviction that the adolescent has within himself powers to initiate his own scholastic growth. It seems reasonable to assume that the student knows better than anyone else some important aspects of his own learning problem. Rogers shows that the individual is the logical agent to think out a positive and satisfactory solution. The group-guidance situation offers him the climate wherein he may face his problem, ventilate his emotions, and retain acceptance in the group. Rogers speaks of this guidance approach as one that has been conspicuously absent in ineffective studies of learning.[2]

Within such a nondirective frame of reference, the present writer set up the following hypothesis:

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[1] Carl R. Rogers, Client-Centered Therapy. Boston: Houghton Mifflin, 1951, pp. 278-83.

[2] Carl R. Rogers, Counseling and Psychotherapy. Boston: Houghton Mifflin Company, 1942, pp. 28-29.

The Hypothesis

Given six group-guidance meetings in which the participants create a series of projective drawings and verbalizations followed by discussion related to learning and/or the problems of learning, the adolescent boy underachiever will:

1. Express inner conflicts of which he may be otherwise unaware and/or with which he may be unable to deal.

2. Work through inner conflicts to the extent of awareness and/or insight.

3. Experience change in attitudes and/or habits of learning.

4. Reflect change in his scholastic achievement.

Subhypotheses.--

1. The difference between the total number of needs an individual expresses in the first two projective drawings and the number expressed in the last two will be a measure of expression of inner conflicts.

2. The negative factors revealed in the group discussions following the projective drawing experiences will yield another measure of expression of inner conflicts. The positive factors in the same discussions will be a measure of working through these conflicts.

3. Individual interview summaries for each member of the experimental group will afford further evidence of affirmation for both terms of the hypothesis.

4. A control group, matched with the experimental group as closely as possible, will serve as a constant for measuring change in the experimental group in respect to learning and attitudes toward learning as well as in scholastic achievement.

5. In the individual underachiever who perceives himself unrealistically in respect to study habits and attitudes a lower

percentile on his final "Survey of Study Habits and Attitudes Inventory" will be a measure of change in the direction of a more realistic self-percept in respect to the given factors of learning.

In setting up the research design the writer sacrificed the extensive statistical verification that rests upon a large number of cases to a more intensive study with fewer cases. It may be said, therefore, that the uniqueness of the individual underachiever is the focus in this study. Fifteen years ago Ackerson offered a critique that still holds and is pertinent to this research design:

> Researchers in the social sciences must necessarily employ to a lesser extent the adequately standardized and objective data because at present few of the complex functions of gross human behavior have been reduced to satisfactory measurement. The social scientist must be ready for the present to work with data admittedly inadequate and must couch much of his interpretation in terms of trends, probabilities, multiple causal factors, correlations, and the like.[1]

The use of data of this nature has grown in acceptance, provided their limitations are made clear at the outset and the plan of research procedures takes them into consideration. The number of cases in the present study imposed statistical limitations, while the nature of much of the data made precise quantification difficult. It is hoped, nonetheless, that indications of change in attitudes and in the direction of learning growth in the underachieving boys make a significant contribution to an understanding of adolescent problems of underachievement. Finally, some conclusions were anticipated as to the value of the projective device in connection with group guidance.

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[1] Luton Ackerson, Children's Behavior Problems. Vol. II: Relative Importance and Interrelations among Traits. Chicago: University of Chicago Press, 1942, p. 48.

Pertinence of the Problem

Mass education accentuates learning problems.--The impact of mass education in our era has accentuated problems of learning to the degree that they threaten to undermine the very benefits claimed from universal education. The vastness of the school program and the complicated machinery it calls for, along with the emphasis on scientific methods and statistical evaluation of the results, seem to overshadow the individual child and his unique needs. Twenty years ago Plant observed:

> School people themselves have mountains of material of every statistical sort upon what the school OUGHT to mean but the equally ponderous mass of truancy, "failure" and individual dissatisfaction shows how utterly unrealistic this dehumanized material is.[1]

It seems to the present writer that current indictments of education focus on those very factors. The question prevailingly demanding utterance is: How grave a threat to personal integrity and individual potentialities is the herding of children in larger and larger school facilities? A partial answer seems implicit in the fact that in almost every issue faced in today's schools the conflict of mass education engulfing the individual is patently reflected.

Underachievement in the adolescent comprises the case in point with which this research is concerned. Institutional programming of mass education has limited individual attention to the progressive development of work-study habits and to personal adjustment. The functioning of teachers has been blocked to the point where they frankly admit that high school students haven't learned how to

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[1] James S. Plant, M.D., Personality and the Cultural Pattern. New York: The Commonwealth Fund, 1937, p. 274.

study.[1] Adolescents offer lack of study and poor study habits as their reason for failure to do their best in school.[2] As freshmen in college, the students charge parents and teachers with failure to "make them learn how to study" and aver, "High school didn't teach me to think, only to learn facts."[3]

Solutions to date inadequate.--There have been curriculum attempts to provide for this key factor to success in the school program as attested by the demand for textbooks that enumerate steps for building good study habits. Specialists have been encouraged to devise attractive workbooks that contain exercises in using the rules formulated. Brown and Holtzman reported in February, 1955, that more than one hundred how-to-study manuals had been published since 1926.[4] The number of double-page reprints[5] and duplicated work guides that have supplemented them is legion. Remedial efforts notwithstanding, teachers across the land are frustrated by the inefficiency of their students; "mediocre" is the

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[1] Matt Lagerberg, "Study Habits in High School Youth," Social Studies, XLV (January, 1954), 9-11.

[2] "Here's Your High School" (May, 1953), Evanston (Ill.) Township High School.

[3] Agatha Townsend, College Freshmen Speak Out. New York: Harper and Brothers, 1956, p. 32.

[4] W. F. Brown and W. H. Holtzman, "Survey of Study Habits and Attitudes," Journal of Educational Psychology, XLVI (February, 1955), 75-84.

[5] "Do I Know How to Study?" National Educational Association Journal, XLV (November, 1956), 504-5.

judgment on their common level of performance.[1] Books, magazine articles, and newspaper columns give witness to a public alerted to the long-range effects such waste of human raw material poses to society.

Conservation of human resources challenged.--No one questions the assertion that trained human intelligence is America's most valuable resource. In this connection the Office of Education reports that only six out of ten of the top 5 per cent of high school graduates receive a higher education.[2] In this failure to discover and develop the possessors of these potentialities one commentator estimates the loss to American society in some hundreds of thousands of pupils for each year.[3] Of those who are continuing their education, Miner makes the statement that the majority of students are working at a level at least four grades below their potentialities.[4] Townsend's study reveals that "even though freshmen identified many of their study difficulties with their English courses, a closer look suggests that problems arose in connection with a number of fields, and really meant that the novice was attacking advanced work with

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[1]Robert D. MacCurdy, Virginia M. Murphy, Alfred S. Adams, and Carlo Vacca, "Can We Teach Them How to Study?" School Review, LXII (September, 1954), 357-60.

[2]Education Fact Sheet (April, 1957), Published by the Office of Education, Washington, D.C.

[3]Richard L. Plaut, "National Scholarship Service and Fund for Negro Students," as reported in Education Fact Sheet (April, 1957).

[4]John B. Miner, Intelligence in the United States. New York: Springer Publication Company, 1956, p. 111.

poor tools."[1] Travers in his contribution to the review of the literature related to the measurement of student adjustment and achievement concludes that bright students often receive the lowest marks, while the child with average intelligence may consistently lead his class in intellectual pursuits.[2] Facts of this kind prompt educators and guidance personnel to probe for causes and strive for therapeutic procedures with which to meet the problem.

Guidance and counseling involved.--Guidance workers and counselors assay the problem of the all-too-prevalent underachieving adolescent as one of major dimensions. Its mental health implications are based on the assumption that boys and girls are frustrated when their abilities are undeveloped whereas talent, properly exploited, brings gratification to its owner. Failure to achieve in school may very well be the symptom of more serious personal maladjustment. Many a problem in the classroom and much of the delinquency in the community may stem from such roots. A backward glance at the factors involved appears most timely.

Related Research in Review

As far as thirty years back.--For the past thirty years work-study habits have elicited extensive treatment in education literature. In 1928 Ruth Strang offered the generalization that discovering how

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[1] Townsend, op. cit., p. 31.

[2] R. M. W. Travers, "Significant Research on the Prediction of Academic Success," in The Measurement of Student Adjustment and Achievement (Donahue, Coombs, and Travers). Ann Arbor: University of Michigan Press, 1949.

to study demands motivation, information, and application.[1] Two years later Ellefson presented a resume of the experimental findings in this area.[2] He mentioned the unsuccessful attempt to solve the problem by administrative adjustment of time and place. Study habit needs were determined by using questionnaires, interviews, written statements by students, analyses of student schedules, observations of student activities, and case studies. Symonds revealed in his paper entitled "Life Problems and Interests of Adolescents" that, of the six problems listed in order of importance, the issue of study habits ranks fourth.[3]

Cuff reported in 1937 the results of his work with 1,250 pupils in Grades IV through XII in Kentucky.[4] He used questions listing seventy-five of the most commonly advocated procedures for study. Many of the children designated as "poor students" professed following these procedures more faithfully than the "good students." Cuff found, too, that methods of study apparently crystallize in the elementary school grades and do not, as a rule, improve appreciably thereafter.

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[1]Ruth Strang, "An Attempt to Teach How to Study," School and Society, XXVIII (October 13, 1928), 461-66.

[2]E. T. Ellefson, "A Resume of Experimental Findings on the Problem of Teaching How to Study," California Quarterly of Secondary Education, V (June, 1930), 373-76.

[3]Percival M. Symonds, "Life Problems and Interests of Adolescents," School Review, XLIV (September, 1936), 506-18.

[4]Noel Cuff, "Study Habits in Grades 4 to 12," Journal of Educational Psychology, XXIII (April, 1937), 295-301.

Traxler found practically the same conditions prevailing in 1945, as had Ellefson fifteen years earlier.[1] His indictment was: too much verbalization and not enough experimentation. In the studies he surveyed, however, he did find evidence that the pupils, when left on their own, make no significant improvement in study habits after the early elementary school.

Howell made a study with 117 pupils in Grades VII and VIII in which fifteen units of work in study skills were presented. From the results on the Iowa Every-Pupil Tests of Basic Skills he showed that little gain was made.[2]

On both the junior and the senior high school level Wilson worked with 837 pupils. After two months of intensive teaching of a few lessons on the principles of effective study, he administered a multiple choice test of thirty-three items. The difference between the median number (15.8) of questions answered correctly by the pupils in Grade XII and the number (11.0) answered correctly by the pupils in Grade VII represented a small gain for a six-year period.[3]

A decade later, DiMichael matched 192 members of Grade IX in a parochial school and tested their knowledge of study skills by means of an inventory containing 224 items. After he had taught study techniques to these subjects for twenty-seven 45-minute periods and measured their knowledge again, he concluded that:

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[1]Arthur Traxler, "The Improvement of Study," School Review, LIII (May, 1945), 286-93.

[2]Wallace J. Howell, "Work-Study Skills of Adolescents in Grades VII-XIV," School Review, LXI (May, 1953), 277-82.

[3]C. B. Wilson, "Pupil Knowledge of Study Techniques," Education, LII (February, 1932), 362-63.

1. Ninth graders do not seem to possess satisfactory knowledge of effective study habits.

2. Students of average mental ability made no significant gains in knowledge of effective study techniques when taught in regular subject matter classes.

3. Students of superior mental ability knew more about effective study techniques than did students of average ability.[1]

Reeder used Wrenn's Study-Habits Inventory with 256 college freshmen at Ohio State University. He found that the correlation between study-habits scores and IQ scores was .18. The correlation of IQ with known academic records of students in the first two quarters of work was .56, while final grades and study habits yielded a correlation of .265. He concluded that we have a long way to go before the exact techniques that make successful study-habits patterns are identified.[2]

Tiebout's three-year clinical study of girls at Sarah Lawrence College gave him insight into what he designated as the characteristics of the lazy-student syndrome. He summarized the underachiever as a personality with:

1. A need to rely on strong and immediate motivation to start studying.

2. A tendency to have interests of a transitory nature.

3. A tendency to be governed by strong hedonistic principles.

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[1]Salvatore DiMichael, "Increase in Knowledge of How to Study Resulting from a How-to-Study Course," School Review, LI (June, 1943), 353-59.

[2]C. W. Reeder, "Study Habits," School and Society, XLII (September 21, 1935), 413-15.

4. A deep-seated problem in learning.[1]

Schlesser and Young worked with 498 freshmen at Colgate University in the work-study area. Using a "studiousness" index and the achievement of upper and lower quarters of groups, they concluded that the study habits were on the fourth-grade elementary school level.[2]

The present writer believes that Howell's summary of the more than one hundred studies he examined covers the data in the foregoing reports. His generalizations follow:

1. Work-study skills are a serious problem.

2. There is a need for concerted effort to train adolescents in proper work-study habits.

3. Correct study habits are not properly established on the upper end of the adolescent age range.[3]

Concurrence with Howell's generalizations appears sterile unless a positive measure can be suggested. Hieronymous pointed to this need when he said: "Well-controlled research is needed to determine methods that will be applicable in overcoming deficiencies now existing in work-study skills."[4]

Advances in the present decade.--In 1950 Kimball presented a study of the causative factors in twenty underachieving boys that

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[1]H. M. Tiebout, "The Misnamed Lazy Study," Education Record, XXIV (April, 1943), 113-29.

[2]George Schlesser and C. W. Young, "Study and Work Habits," School Review, LIII (February, 1945), 85-89.

[3]Howell, op. cit., p. 280.

[4]A. N. Hieronymous, "Research and Appraisal in Education," Phi Delta Kappan, XXX (April, 1949), 351-52.

is an advance over earlier purely symptomatic approaches. In the rationale for the case-study approach which she used she noted the following limitations in the emphatic use of relatively large numbers of cases to give statistical treatment to the data of research studies:

> Whereas research seeks to prove that some specific hypothesis holds for a significant number of students, it provides no way of telling whether we are dealing with minor deviations in a large number or extreme deviations in a smaller number. There is NEED for more than reliable information on general trends to understand why a certain individual represents an extreme level of underachievement. Emphasis is upon correlation rather than causation. Even when we know how to distinguish the good student from the poor student, on the basis of specific study methods (and here all findings do not agree on which methods characterize which group), we do not understand WHY a person fails where he might succeed. Specific training in study habits may have no significant effect.[1]

Kimball's study focuses on the potential salvage of students through the use of projective materials rather than on screening potential failures. In her case-study approach she aimed to arrive at testable hypotheses which may be set up as explanations for failure. She called this "purely exploratory research" and reiterated the need to see the problem in context as part of the entire personality constellation. Such a diagnostic procedure permitted her to give personality descriptions in terms of interrelationships that reveal differences hitherto hidden in underachievers. The ultimate goal that Kimball posited was a formulation of the dynamics of personality development. A clarification of the role scholastic achievement plays in the particular personality structure was part of this

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[1] Barbara Kimball, "The Relationship Between Non-Intellective Factors and Scholastic Achievement" (unpublished Ph.D. thesis, Harvard University, 1950), 21f.

objective. She was hopeful that the recognition of causes of discrepancy would lead to a "therapeutic interest not particularly prominent in the work to date." In a final suggestion for further research she made the following specific assertion:

> The research project which the author would be most anxious to see started in this area would be an investigation of the effects of therapy in dealing with this problem. In view of the findings which have been reported, it would appear that such efforts might be directed toward the discharge and acceptance of the negative feelings which have apparently been repressed and also toward the formation of a positive relationship with an adult male who might serve as a father substitute.[1]

At Hunter College in 1953-54 Somerville investigated the study habits of 320 undergraduates. On the basis of their answers to a questionnaire he concluded:

1. Each one must grow accustomed to the tendencies and peculiarities of his own physiological system, his own psychological make-up.

2. Different people have different reactions to the same thing. The uniqueness of study patterns is suggested by the following quotation from one of the questionnaires: "One day I accidentally stumbled upon a highly profitable method of study."[2]

Six studies on underachievement, completed since 1955, affirm the multidimensional aspects of the problem and its cogency. Armstrong's "Comparison of the Interests and Social Adjustment of Underachievers and Normal Achievers at the Secondary School Level"

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[1] Ibid., p. 369.

[2] John Somerville, The Enjoyment of Study. New York: Abelard-Schuman, 1954, p. 184.

indicated that statistically significant differences mark underachievers in the following respects:

1. They more often chose future occupations because of the influence of others.

2. Their future vocational goals did not agree with the dominant interests indicated on Kuder tests.

3. Their Kuder computational scores were more often lower than those of achievers.

4. More low scores were made in the area of "preference for avoiding conflict."

5. Ratings were lower on "cooperation, dependability, and judgment."

6. Boys preferred companions older than themselves.

7. Fewer high scores were made on the computational scale.[1]

Brisee used structured and unstructured tests for comparing forty-four achievers and thirty-three underachievers. He found underachievers significantly more hostile and extrapunitive. Differences in the direction hypothesized, but not statistically significant, were found as follows:

1. Underachievers gave more expression to feelings of hostility.

2. Underachievers saw themselves as less ascendent and less responsible.

3. They displayed more concern over physical characteristics.

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[1] Marion Elizabeth Armstrong, "A Comparison of the Interests and Social Adjustment of Underachievers and Normal Achievers at the Secondary School Level" (unpublished Ph.D. dissertation, University of Connecticut, 1955).

4. They placed their families on a lower occupational scale.[1]

In "An Analysis of Certain Factors Associated with Underachievement among High School Students" Phelps found the hundred underachievers with whom he worked differing significantly from achievers in the following respects:

1. The underachievers have higher intelligence quotients.

2. They have more cases of ill health and serious accidents.

3. They spend less time on homework and are more interested in personal-social relations.

4. They have a lower level of interest scores and a less favorable over-all attitude toward school.[2]

Stoner made an exploratory study of factors, other than IQ, of high ability underachievers. His findings were based on the test results of 275 eleventh graders with IQ's of 120 and higher. He described underachievers with the following adjectives associated with the five scales of the California Psychological Inventory:

1. Dominance: commonplace; indifferent, inhibited, retiring, silent, unassuming

2. Socialization: defensive; demanding, opinionated, resentful, stubborn

3. Intellectual efficiency: cautious; confused, easy going, mild, shallow, unambitious

4. Psychological interests: apathetic; considerate, peaceable, retiring, serious, unassuming

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[1] Clyde Wesley Brisee, "Affective Factors Associated with Academic Underachievement in High School Students" (unpublished Ph.D. dissertation, Cornell University, 1956).

[2] Morris Overton Phelps, "An Analysis of Certain Factors Associated with Underachievement among High School Students" (unpublished Ph.D. dissertation, University of Georgia, 1956).

5. Flexibility: insightful; rebellious, touchy, assertive, humorous[1]

Stoner's other generalizations included:

1. Underachievers were aware of their academic weaknesses and also of possible reasons for weaknesses.

2. More underachievers believed themselves misunderstood by the teachers.

3. Fewer believed that they lived up to parental expectations.

4. Underachievers were less sure of future educational plans.

Calhoun based his study of "The Effects of Counseling on a Group of Eighth-Grade Underachievers" on the results of at least three conferences, during a school year, with his experimental group.[2] A summary of his data follows:

1. No one factor was designated as the possible cause of underachievement by the majority.

2. The two possible causes named most frequently were: lack of study and difficulty with one or more specific subjects.

3. On the second achievement test the experimental group had an advantage, but it failed to reach statistical significance.

4. Some improvement resulted; increase of interest in school was noticeable.

5. The impression gained was that this group, at least, had a complexity of factors contributing to underachievement and had to be dealt with on a highly individualized basis.

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[1] William Gerald Stoner, "Factors Related to Underachievement of High School Students" (unpublished Ph.D. dissertation, Stanford University, 1956).

[2] Samuel Reed Calhoun, "The Effects of Counseling on a Group of Eighth-Grade Underachievers" (unpublished Ph.D. thesis, University of Pittsburgh, 1956).

McLaughlin presented "A Study of the Effectiveness of Personal Counseling with Seventh Grade Pupils" which described the effects of personal counseling provided for fifty members of his experimental group as frequently as they wished. A test of effectiveness, with twelve criteria, covered achievement in school subjects, study habits and effort rating, and personal adjustment and social adjustment. McLaughlin's summary indicated significant differences in favor of the experimental group in respect to the following three criteria only: effort rating, disciplinary referrals, and peer status. While more individual gains were noted in the experimental group, the difference was below the 10 per cent level of confidence and could not be considered statistically significant.[1]

Limitations in studies to date.--The extent to which the foregoing studies offer a solution to the problem of underachievement in adolescents seems negligible to the present writer. The summarizations contribute to a general understanding of various factors involved in underachievement, but they likewise testify to failure in activating positive corrective measures. The emphasis seems to be placed entirely on the problem, whereas it appears that a program of therapy should entail the subjects' initiating those measures that will meet their unique needs.

Research workers have observed and studied underachievers and have subjected them to countless remedial procedures, but nothing appears to have succeeded in provoking positive activity in these boys and girls to the point where they became agents of

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[1]Edward Fay McLaughlin, "A Study of the Effectiveness of Personal Counseling with Seventh Grade Pupils" (unpublished Ph.D. dissertation, University of Houston, 1956).

purposive therapy. It seems to the writer that there is a threat to over-all integration of the developing personality in the implied mental passivity of underachievers. Allport's warning on the effects of nonparticipation may be the explanation of many behavior problems involving underachievers in the school environment. He reported:

> When the ego is not effectively engaged the individual becomes reactive. He lives a life of ugly protest, finding outlets in complaints, strikes, above all in scapegoating. . . . Activity alone is not participation. Most of our fellow citizens spin as cogs in many systems without engaging their egos even in those activities of most vital concern to them.[1]

A focus on the unique personality constellation of every underachiever points up a second limitation in the previous research on underachievement. Kimball noted that to establish statistical significance research workers have presented averages rather than extreme cases.[2] Their concern has been for correlation rather than causation and therapy. Moreover, the narrow range of techniques used for investigation in any single study tended to oversimplify the problem. The present writer believes that there is need for research that will approach the problem of underachievement within a more comprehensive frame of reference. The research design of the present study is intended to provide such a pattern.

Rationale of the Proposed Study

Current reliance on projective techniques.--Psychologists and others with a professional concern for maladjustments in individual

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[1] Gordon Allport, "The Psychology of Participation," Psychological Review (May, 1945), 126.

[2] Kimball, op. cit., p. 29.

personalities have come to depend more and more on projective techniques in their diagnostic endeavors. These techniques, despite the difficulty of quantification, have made a significant contribution to the present advance in analyzing personality maladjustments. Hutt calls projective testing a "developing technique of fundamental and persistent importance in the history of psychology and social science."[1] Projective tests, according to Abt, disclose "individualized ways of thinking, acting, and feeling--all revelations of perceptions and responses of cultural patterning and parental care, rearing, and training."[2] There seems to be a general conviction that to know an individual one must "begin with him in all his inner intricacies as the unit of observation."[3]

Research workers in the social sciences are exploiting what appears to be fringe benefits of projective techniques. Sanford finds them useful in attitude surveying.[4] They probe more deeply and obtain data that are proving more reliable and more valid than information gained from direct questions. Ehle adapted the basic element of projective techniques to door-step interviewing.[5] The picture device, he found, eluded the psychological censor that so

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[1]Max L. Hutt, "Toward an Understanding of Projective Testing," Journal of Projective Techniques, XVIII (June, 1954), 197.

[2]Lawrence Edwin Abt and Leopold Bellak (ed.), Projective Psychology. New York: Alfred A. Knopf, 1950, p. viii.

[3]Saul Rosenzweig and Kate Kogan, Psychodiagnosis. New York: Grune and Stratton, 1949, p. 370.

[4]Fillmore H. Sanford, "The Use of a Projective Device in Attitude Surveying," Public Opinion Quarterly, XIV, 697-707.

[5]Emile L. Ehle, "Techniques for Study of Leadership," Public Opinion Quarterly, XIII, 235-40.

often controls the standard face-to-face interview. Testing reliability by a second interview, Ehle concluded that it was fairly safe to assume that the device taps organized syndromes of deep-lying attitudes and that, whereas direct questions often elicit answers determined by adventitious factors, the projective tool gets at worries that are more "real."

Every study concerned with underachievement that the present writer has found concluded that failure in the scholastic area is rooted in the dynamic interaction of basic personality traits. None of the writers expressed any assurance about the problem approaches to date. Further research, it seems, might profitably include a projective tool for uncovering attitudes and responses characteristically exhibited by the individual in learning experiences. The data derived from such an experimental study should make a greater contribution to research on underachievement than a quantification of how much of this or that study skill a given student may possess.

The proposal for this study.--The writer proposes to use an unstructured projective technique of her own design aimed at providing for freedom of expression to the inner dynamics of the underachiever. The hypothesis for its use is built on the supposition that the underachiever, in the freedom of creating a script related to school subjects and marks, releases forces that may be denied expression in real life. When such is the case, it is further supposed that the underachiever will ventilate deep trends which otherwise would remain underground. If this occurs, the adolescent should not only gain freedom from distressing inner forces, but should find whatever resistance he may have within him breaking up so that he may initiate satisfying and efficient study patterns. The nature of the projective device (involving drawing) is planned so as

to stimulate the situation in which the underachiever may be experiencing anxiety or may have feelings of guilt. The assumption is that all this will tend to force him to give a response to the situation in his drawing. The sheet which serves as stimulus is rather clearly defined and definitely structured toward this aim of the study.

This projective device is a sheet of paper of ordinary size divided into four equal sections (Appendix A, p. 127). The structured part of the design in the first area simulates a report-card face with an empty "balloon" for dialogue. The assumption is that the testee will identify himself with the character he draws to participate in the dialogue and will use the remaining rectangles for developing an episode in his "story." The number of drawings on an individual sheet will depend upon the inclination of the testee; the minimum is one. The writer has aimed for enough structuring to narrow student responses to experiences in learning, the field being the outcomes of learning, as measured by report-card marks. Whereas other tests reveal how the testee CAN respond to questions, in this projective situation the testee permits the observer to see how he WILL respond when there are no restrictions on his choice. The latter approach, the writer assumes, has a value hitherto untapped for assessing study attitudes and habits.

Forces released during the projective experience may not otherwise be permitted expression in the adolescent underachiever's daily life. Strong aggressive tendencies, for instance, are denied expression in an orderly and compulsive classroom and home. Their expression in the projective drawings may serve as catharsis and be an open door to insight that will activate change in the boy's educational behavior. If the study shows that the device stimulates catharsis and promotes insight in the underachieving boys, it

may be possible to hypothesize from its results direction of incipient change even when change per se is not evident.

Group-guidance suppositions.--Pepinsky's definition of group guidance establishes the rationale for this aspect of the present research. He outlines its pattern as "guidance processes conducted in groups and designed to assist 'normal' individuals to analyze problems of choice and adjustment which confront them, to work out constructive solutions based upon an adequate knowledge of self and knowledge of the areas in which choices and adjustment must be made."[1] Added to this, Axline develops the assumption relied on for the present research by pointing out the multiple avenues of approach such an experience offers and by noting the choices open to individual members with a full system of checks and balances to challenge them to examine and re-examine their individual concepts, values, and experiences.[2] The group-centered approach, as Gordon sees it, leads "toward discovering ways by which each individual member may learn to clarify and diagnose his own needs and learn how to achieve self-understanding."[3] The teacher, in Gordon's interpretation, focuses her attention on helping her students learn to assume more responsibility for the analysis of their own potentialities and deficiencies in the different subject fields. In the group

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[1] Frank Pepinsky, "Counseling Theory and Practice," Review of Educational Research, V (April, 1945), 219.

[2] Virginia Axline, "Group Therapy As a Means of Self Discovery for Parents and Children," Group Psychotherapy, VIII (August, 1955), 155.

[3] Thomas Gordon, Group-Centered Leadership. New York: Houghton Mifflin Company, 1955, p. 43.

atmosphere they come to examine their own procedures instead of concealing what they really do. In this climate, faculties for creative, critical, and independent thought and action are nurtured to the fruition stage. It is likely, according to Hobbs, that individuals at different phases of development can work through problems most successfully in groups.[1] Since the adolescent is in a transition stage, the writer believes that he finds the group atmosphere supportive and conducive to the benefits cited above. The present research pattern is set up to take advantage of this and its results will indirectly assess the group-guidance procedure for underachievers.

Nondirective assumptions.--Adjustment, as far as this study is concerned, is more than coming to terms with problems. For the adolescents with habits and attitudes that operate negatively in their scholastic experiences it involves a self-analysis into individual realities and an activation of those forces unique to the personality which are consistent with a revised program for achievement. The nondirective approach, as previously defined, tries to facilitate self-appraisal of personal and environmental limitations and helps to release latent forces for growth within the personality. The present research relies on the concept, as Rogers and Dymond develop it,[2] that the student in a nondirective group-guidance atmosphere becomes a "self-initiated learner, more original, and more self-disciplined."

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[1] Nicholas Hobbs, "Client-Centered Psychotherapy," Six Approaches to Psychotherapy, ed. James L. McCary. New York: Dryden Press, 1956, p. 41.

[2] Carl R. Rogers and Rosaline F. Dymond, Psychotherapy and Personality Change. Chicago: The University of Chicago Press, 1954, p. 4 f.

Traditional Christian basis.--The educational theory of the Western World rests upon the principle that learning is basically the effect of self-activity. Maritain restates the principle as follows:

> All this boils down to the fact that the mind's natural activity on the part of the learner and the intellectual guidance on the part of the teacher are both dynamic factors in education, but that the principal agent in education, the primary dynamic factor or propelling force, is the internal vital principle in the one to be educated; the educator or teacher is only the secondary--though a genuinely effective--dynamic factor and a ministerial agent.[1]

Such a recognition of the autonomous quality of education has been traditional with all the great Christian educators. Thomas Aquinas clearly posits three conditions in the normal, happy, and virtuous individual. First, he must know the reasonable goal of particular actions in their relation to his ultimate goal of life. Secondly, his emotional and instinctive capacities must be pointed in the direction of his goal. Finally, his choice from various intermediary action must actually lead him to his goal. St. Thomas expresses it thus:

> When a man does a good deed, not of his own counsel, but moved by that of another, his operation is not yet quite perfect, as regards his reason in directing him and his appetite in moving him. Therefore, if he do a good deed, he does not do well absolutely; and yet this is required in order that he may lead a good life.[2]

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[1] Jacques Maritain, Education at the Crossroads. New Haven: Yale University Press, 1943, p. 31.

[2] St. Thomas Aquinas, Introduction to St. Thomas Aquinas, Translated by Anton C. Pegis, I-II, Q. 57, a. 5, reply to obj. 2. New York: Random House, Inc., 1948, p. 576.

Then he becomes more explicit in saying,

> Prudence stands in the same relation to such human actions, consisting in the use of powers and habits, as art does to external makings; since each is the perfect reason about the things with which it is concerned.[1]

The individual Christian, in carrying out the complex process of organizing activity, exercises the virtue of prudence and those other virtues that in the particular circumstance are related to it. St. Thomas refers to St. Augustine in his exposition of this.

> Augustine usually applies the term ART to any form of right reason; in which sense art includes prudence which is the right reason about things to be done, even as art is the right reason about things to be made. Accordingly, when he says that virtue is the art of right conduct, this applies to prudence essentially; but to all the other virtues, by participation, for as much as they are directed by prudence.[2]

Each of the great teaching Orders of the Church has portrayed its genius for penetrating and assimilating the culture in which it carries out its educational mission. Today, as well, the self-activity and self-responsibility of the learner in his particular environment are foremost in the Christian program of education. In bold outline Pius XII draws the following concept of the human person:

> The people lives by the fullness of life in the men that compose it, each of whom--at his proper place and in his own way--is a person conscious of his own responsibility and of his own views. . . . From the exuberant life of a true people, an abundantly rich life is diffused in the state and all its organs, instilling into them, with a vigor that is always renewing itself, the

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[1] Ibid., a. 4, obj. 3, p. 573.

[2] Ibid., Q. 58, art. 2, reply to obj. 1, p. 582.

> consciousness of their own responsibility, the true instinct for the common good.[1]

The Pope becomes more specific in saying,

> That means that the work of education, since it must be carried on in a specific environment and for a specific background (milieu), must constantly adapt itself to the circumstances of this background, and of this environment wherein this perfection has to be obtained and for which it is destined. . . . Thus, the Christian ideal of education is identified with the latest findings of psycho-pedagogical science, surrounding it with a light which perfects it and facilitating the educative process with the complete and fruitful development of the individual personality.[2]

Another recognition of the dynamic forces that operate in non-directive guidance and counseling seems implicit in the following description:

> From an authentically Christian point of view Christian education is synonymous with liberation and is normally effected in an atmosphere of joy. This liberation being an inner value, a human being frees himself progressively in so far as he achieves an integration of the organic, biological and even the psychological factors that constitute the composition of his nature.[3]

This, in essence, may be translated in terms of the child in the school situation as follows:

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[1] Pope Pius XII, "Christmas Message, 1944," The Catholic Mind, XLIV (February, 1945), 65-77.

[2] Pope Pius XII, "Education and the Modern Environment," Radio address to Inter-American Congress on Catholic Education, La Paz, Bolivia, October 15, 1948, The Catholic Mind, XLVII (February, 1949), 118-21.

[3] "Religious Education and Mental Health," a report submitted to UNESCO by the International Catholic Child Bureau, Paris, 1952, in Lumen Vitae, X (October-December, 1955), 555.

> The true essence of liberty, which is indispensable to man, is the liberty to MOVE and to THINK at one's own individual pace . . . to respect the child's liberty is to help him discipline himself. It is to become the ally of his centripetal energy against his centrifugal drives. It is to guide him towards his fulfillment as a conscient and responsible human being.[1]

Although the emphasis of Christian education has clearly and consistently pointed to self-directed activity in the learner, the expediencies evoked by mass education appear at times to blur the principles and to militate against their effectiveness. American Catholic educators admit that their schools have failed to produce a vital Catholic life proportionate to the effort expended.[2] The present study not only portrays an application of age-old tenets, but it is an effort to adapt them to the current needs of the American environment. As Curran notes,

> It [counseling] can be helpful, too, in producing a state of "teachableness" in which a person willingly seeks and absorbs necessary information he previously lacked. Before he can do this, he often needs an accepting and understanding experience of a different kind through which he can integrate his emotions, so that he now has an appetite for what he knows he should do.[3]

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[1] Helene Lubienska, "The Child, His Body and His Soul," Jubilee, V (June, 1957), 37-39.

[2] Charles A. Curran, Counseling in Catholic Life and Education. New York: Macmillan Company, 1952, p. 436.

[3] Ibid., p. 37.

CHAPTER II

THE PROCEDURAL PATTERN

Procedural problems in this study involved (1) outlining the assumptions basic to the study; (2) setting up the pattern of research; (3) resolving questions of practicability, reliability, and validity in reference to the instruments and procedures designated; and (4) deciding upon "areas" of investigation to be followed and the assessments of data and their organization for the units within each area. The following assumptions were first made:

1. The testee in projective drawings tends to project himself in his creation.

2. The projective series of each testee rests upon the Gestalt unique to his concepts and experiences. Insight, likewise, will present unique individual patterns.

3. A learning ratio of 1 to 1 is assumed between the mental capacity of a student as measured by a standardized intelligence test and the over-all index of achievement in the regular content subjects, as measured by the teachers' marks.

4. The standardized instruments used in the study will, after careful scrutiny of their merits, be accepted at face value.

5. The Cowan Adolescent Adjustment Analyzer will screen seriously maladjusted cases and will indicate lesser maladjustments in the subjects taking part in the study.

6. The Brown and Holtzman Survey of Study Habits and Attitudes will assess study habits and attitudes in the underachievers.

7. The Terman-McNemar Test of Mental Ability will validly measure the intelligence of each of the underachievers.

8. A sociometric test will give an intimation of peer status in the respective homerooms for each of the boys in the study.

9. The competency of the analysts will be implicitly attested by their designation by the Director of the Division of Counseling of the Horace H. Rackham School of Graduate Studies of the University of Michigan.

10. Teacher ratings of study habits and attitudes and marks will be accepted as reliable measures of the study habits and achievements of the students in this study.

11. The difference between the total needs expressed in the first two projective drawings as rated by the judges and the total for the last two drawings as again rated will be a measure of inner conflicts that have been expressed by the testees.

12. Evidence of the "working through" of inner conflicts by the testees will be obtained from the following:

a. The judges' evaluation of awareness of conflict and/or insight on the projective drawings.

b. The log kept by the writer of the testees' behavior and contributions in the discussions that take place following the drawing exercises.

c. The notes made by the writer during each of the individual interviews held at the termination of the group meetings.

13. The difference between the differences in percentiles on the SSHA Inventory for the experimental and control groups will measure change in study habits and attitudes toward learning effected in the group-guidance experience.

14. Teacher ratings in May on study habits and attitudes will afford another measure of difference in change between the experimental and control groups attributed to the research experience.

15. The difference between the differences in means of averaged point-ratings of report-card marks given the experimental and control groups at the close of the second semester will measure change in scholastic achievement resulting from the experimental experience.

16. The .05 level will be accepted for statistical significance in the tests applied to the data in the study.

The type of school in which to conduct the study called for serious consideration. The writer believed that the students in a public school might feel constrained and find rapport difficult with a member of a religious organization wearing a distinctive dress. Therefore, St. Thomas High School in Ann Arbor, although somewhat limited in size with a student body of three hundred, seemed a logical choice. Inquiry revealed an average range of abilities and achievement in the high school student body. It was the writer's impression that the families are in the middle class socially and economically and that rural as well as urban backgrounds are represented. The factors of accessibility, willingness of the administration and faculty to cooperate, and the feasibility for establishing rapport settled the decision in favor of this school.

A trial run was planned to test the projective device and detect rough spots in procedure. In order to obviate any hazard of incurring pupil familiarity with the instruments to be used, the writer decided to make the preliminary run at Sts. Peter and Paul High School in Saginaw. The homeroom counselors for the ninth

and tenth grades of this school had been asked to prepare a list of those boys whose scholastic achievements they judged below par. The data for each boy included his IQ, based on the California Test of Mental Maturity administered by the homeroom counselors of the ninth grade near the close of the first semester, age, grade, and report-card marks in subjects currently followed. From these two groups, fifteen boys were chosen to whom the Cowan Adolescent Adjustment Analyzer was administered. On the basis of the profiles provided by the instrument, the seriously maladjusted were screened and twelve boys invited to be members of the experimental group.

The presentation of the study was carefully designed to stimulate interest among these boys without arousing any feelings of self-consciousness or anxiety. The writer expressed the need for student cooperation to collect information on how teen-agers feel about school subjects and study. The fact that boys are frequently more frank about their attitudes toward school, and especially when girls are not included, was given as an explanation for their being chosen. The writer gave further assurance by a straightforward statement that the confidential nature of anything written or said throughout the experimental experience would be strictly protected. Finally, the boys learned that any or all of the material individually submitted would be examined and that they might ask any questions if they so desired when the individual interviews later took place. Membership in the group was voluntary, but commitment for the entire study was implied by the act of joining.

To conserve time, the writer decided to meet this group for a forty-five-minute period on each of six successive school days, rather than once a week for six weeks. The projective device was used at the beginning of each meeting and the remainder of the period was spent in group discussion of any subject pertinent to the

material involved. A permissive atmosphere was maintained throughout these meetings and the counselor kept a log of what transpired during each session. When the six meetings had terminated, the individual interviews with each boy took place. These meetings were structured so that the writer might learn from what sources the students had obtained the material they had projected in the drawings and what their reactions were to the projective device itself and to the group sessions in which they had participated.

The projective device, as described in the preceding chapter and found in Appendix A, page 127, was a sheet of typing paper on which was drawn in the upper left of four equal rectangles a report-card face with an empty "balloon" for dialogue. The "stories" the subjects were asked to spell out in the remaining areas varied according to the directions given at the opening of each meeting. In the first four sessions they centered about the following:

1. The subject "least liked" and the mark "not good."
2. The subject "liked best" and the mark "not good."
3. The subject "least liked" and the mark "very good."
4. The subject "liked best" and the mark "very good."

In meetings five and six the writer suggested that the boys "try again" the directives of the first two sessions.

The writer defined the diagnostic criteria for the projective drawings in terms of the needs or drives set up by Murray.[1] The twenty needs or drives most typical of adolescent behavior became the categories on which the judges rated the projective drawings. There was no stipulation as to the number of the criteria to be expected in any set of drawings. The two analysts who were to

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[1] Henry A. Murray, Explorations in Personality. New York: Oxford University Press, 1938, pp. 77-85.

rate projective material of ten of the boys received the check list and a copy of the definitions as Murray expressed them. The writer, as third judge, met with the other two analysts to decide on specific directions for using the check list. They reached an agreement on the application of the definitions by carefully weighing each statement and the drawings of the two cases that were not included with the ten cases chosen. Operational distinctions for those definitions that seem to overlap were also established. The rating sheet (Appendix A, p. 126) permits a separate tally for the first two and the last two drawings. Each judge worked independently and turned in a separate rating sheet for the material from each of the cases. The tabulation of these data revealed that the judges had used only fifteen of the twenty needs mentioned above. The summary of these ratings may be found in Appendix B, page 130.

Selection of experimental and control groups.--The experimental design for this study called for a minimum of ten underachievers in both control and experimental groups, with a desideratum of twelve to offset a possible loss in membership during the semester. Since it was not likely that the required number of matched underachieving boys would be available from the ninth and tenth grades in a school the size of St. Thomas, it was necessary to include the eleventh grade in the final design. The writer decided to include four boys from each of the three grades in both the experimental and control groups. The problem posed was first to screen seriously maladjusted individuals and then to match each pair of boys in respect to age, IQ as determined by the Terman-McNemar Test of Mental Ability administered by the school principal in the second semester of the previous year, report-card marks, teacher ratings on study habits and attitudes, and SSHA percentiles. All told, the

teachers submitted a list of forty underachieving boys from these grades. A check of their permanent records resulted in the elimination of four of them for one or more of the following reasons: (1) unusual pattern of absences, (2) below-average IQ, and (3) doubtful underachievement status.

The remaining thirty-six boys were given the Cowan Adolescent Adjustment Analyzer. It provides a profile for maladjustment in the following nine categories: fear, family emotion, family authority, feeling of inadequacy, nonfamily authority, immaturity, escape, neurotic, and compensation for which a T-score under 40 and above 60 is rated abnormal. The T-score may be considered a normalized standard score converted into a distribution with a mean of 50 and a standard deviation of 10.[1] In setting "normal limits of maladjustment" at 40 T and 60 T the authors of the instrument, therefore, designated one standard deviation below and above the mean. Spelled out in percentages, this excludes the lowest 15.87 per cent of cases as well as those which fall above the 84.13 per cent line of demarcation and comprises the 68.26 per cent found between one sigma above and below the midpoint on a normal curve. The writer decided to eliminate as seriously maladjusted those boys whose profiles indicated a score outside the above limits in more than any three categories. For this reason the names of six of the boys were withdrawn at this point.

All but three of the boys under consideration had taken the Terman-McNemar Test of Mental Ability, Form C, in the previous school year. The principal administered the test and computed the IQ's. Inasmuch as this test is favorably rated in respect to both

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[1]Henry E. Garrett, Statistics in Psychology and Education. New York: Longmans, Green and Co., 4th ed., 1953, p. 308.

validity and reliability, the IQ ratings derived therefrom were accepted as valid measures of the boys' mental abilities. The writer administered the test to the three boys who had not taken it. Table 1 shows the distribution and means of IQ's for the boys who comprised the final experimental and control groups. The mean IQ for the experimental group is 110.9, while that of the control group is 110.2. No individual is below the normal range (90-109) and the averages are above the upper limit of this range. The t-test was used to determine statistical significance. The t-score for mean difference is .22. The 5 per cent level was stipulated acceptable for statistical significance in the tests applied to the data in this study. The table of t reveals that at 22 degrees of freedom for the 5 per cent level of confidence t is 2.07. Since the t-score of the mean difference in respect to IQ is only .22 the null hypothesis is accepted and the assertion follows that this difference is not statistically significant.

These underachieving boys range from fourteen to eighteen years in age. Table 2 indicates the frequency for each age. The experimental group has a mean age of 15.42 years and the control group has a mean of 15.5 years. The difference, tested statistically, revealed a t too small (.18) to admit statistical significance at the level of confidence indicated. Therefore, the two groups may be said to be matched with statistical reliability in respect to age.

The criteria for teachers' marks for the content subjects at St. Thomas School have been used by the faculty over a long period of time. When the students in the experimental group referred to the marking system they seemed to understand and accept the logic behind it. The basic philosophy is: given average intelligence and satisfactory study habits, a boy who applies himself with reasonable diligence will merit a C under normal conditions. For such a boy

TABLE 1

DISTRIBUTION OF IQ SCORES FOR UNDERACHIEVERS

IQ[a]	Experimental Group	Control Group
124		1
123	1	
121		1
120	1	
117	1	
116	1	
115		2
114	1	
113	1	1
110		1
109	1	1
108	1	
107		1
106	1	
105	1	1
104		1
103		1
101	1	
99	1	
96		1
Mean	110.9	110.2
	$\underline{t}$ .22 df 22	P> 0.05

[a]As measured by the Terman-McNemar Test of Mental Ability, Form C.

TABLE 2

DISTRIBUTION OF CASES BY AGE

Age	Experimental Group	Control Group
18	1	
17		2
16	5	4
15	3	4
14	3	2
Mean	15.42	15.5
	t .18 df 22 P> 0.05	

a D would indicate underachievement. For this study, however, the category of underachievers included only those boys who had two or more D's or F's for the current year. For boys with IQ's well above the normal range, the absence of even one A or B in their marks for the current year appeared to indicate underachievement. Report cards are marked twice in a semester. Table 3 presents the patterns of marks for both the experimental and control groups for the first semester of the current year. The reader is reminded that unless a subject was dropped in the second semester each boy's tallies should represent two marks in four subjects.

TABLE 3

TEACHERS' MARKS IN CONTENT SUBJECTS FOR THE PREVIOUS SEMESTER

Student	Experimental Group							Control Group						
	IQ	Frequency Letter Mk.					Grade Point Avg.[a]	IQ	Frequency Letter Mk.					Grade Point Avg.[a]
		A	B	C	D	F			A	B	C	D	F	
Bill . . .	114			4	4		2.5	109			1	2	3	1.7
Carl . . .	120		1	1	5	1	2.3	121	1	2	3		2	2.6
David . .	113		1	2	5		2.5	110			4	4		2.5
Dick . . .	101			1	3	2	1.8	105		2		4		2.7
George . .	109			2	4		2.3	113			5	2	1	2.5
Jerry . .	99			2	5		2.3	96			2	3	3	1.9
John . . .	123			4	1	1	2.5	124		2	5	1		3.1
Lewis . .	108		1	3	4		2.6	107			4			3.0
Michael .	106			2	3		2.4	103			2	3	1	2.1
Neil . . .	105			1	6		2.1	104			1	4	3	1.8
Sam . . .	117		2	3	3		2.9	115			6	2		2.8
Tom . . .	116		3	4	1		3.3	115	2	1	1	2		3.5
Mean							2.46							2.52
				t .309			df 22				P>0.05			

[a]The values assigned to letter ratings follow: A, 5; B, 4; C, 3; D, 2; F, 1.

In computing the grade-point averages for Table 3 a value of 5 was assigned to an A, 4 to a B, 3 to a C, 2 to a D, and 1 to F. A minus (-) qualifying any mark was not taken into consideration. The writer assigned no names to the members of the control group because they will not be given any individual treatment in the study. They are, however, tabulated adjacent to the members of the experimental group with whom they are matched for grade and IQ. Cases 6 and 12 in the control group were included because their A and B marks were first marks that were not sustained and their D's carried a minus that gave the impression of work that barely missed a failing grade. The test for the significance of the difference between the means showed $\underline{t}$ to be .309. Inasmuch as $\underline{t}_{.05}$ is 2.07 at 22 degrees of freedom, this mean difference of average rated achievement may be attributed to chance. The two groups, therefore, may be considered reliably matched in the area of average rated achievement.

As a preliminary to all of the foregoing steps, the writer administered the Survey of Study Habits and Attitudes to all the boys in grades nine, ten, and eleven. She explained to the boys that its purpose was to give a general purview of teen-age habits and attitudes toward study. Provision for objective and realistic answers to the inventory items was furthered by requesting the boys to hand in their answer sheets unsigned. The writer had, however, marked the papers for identification. To insure comprehension of each item and to better control varying reading abilities among the boys, the writer read the seventy-five items to them. The boys were free to ask for explanations of any statements they did not understand and, upon request, several were read a second time. The percentile scores for both the experimental and control groups may be found in Table 4. They were computed according to the

TABLE 4

SSHA PERCENTILES PRIOR TO THE EXPERIMENT

Student	Experimental Group	Control Group
Lewis	85	97
Michael	81	84
David	72	70
Jerry	70	55
Sam	68	40
Tom	60	35
Dick	35	41
Bill	20	30
Neil	14	22
Carl	7	20
George	6	18
John	4	8
Mean	43.5	43.3
Mean difference = 0.2		
t = .016	df = 22	P > 0.05

high school norms provided by the authors of the instrument in their 1956 manual. Since the mean percentile for the experimental group is 43.5 and that of the control group is 43.3, t is only .016. At 22 degrees of freedom $t_{.05}$ is 2.07. This t of .016 may, therefore, be considered statistically nonsignificant and this difference of means in study habits and attitudes due to chance.

The research pattern called for a teacher rating of study habits and attitudes for each of the students in both groups prior to the experimental experience. The scale devised for this purpose consisted of fifteen statements related to learning and attitudes toward study (Appendix A, p. 128). These comprised items of particular pertinence taken from the SSHA Inventory and from the findings of Tiebout in his three-year clinical study of underachievers at Sarah Lawrence College.[1] A range of five points provided for considerable refinement in the evaluation. For tabulating purposes, the writer assigned numerical values of 1 to 5 to the individual point ratings. In order to compensate for extremes and "halo" effects in judgments, a rating was obtained from three teachers for each boy and the average was used for tabulation. Table 5 presents these teacher appraisals. The mean for the experimental group is 41.5 and that of the control group, 40.2. The difference is 1.3 and yields a t of .29 when tested for statistical significance. Since $t_{.05}$ at 22 degrees of freedom is 2.07 this mean difference of .29 in teacher appraisals of study habits and attitudes prior to the research experience warrants accepting the null hypothesis. The two groups may, therefore, be considered comparable in this respect.

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[1] H. M. Tiebout, Education Record, XXIV (April, 1943), 113-29.

TABLE 5

PRELIMINARY TEACHER RATINGS ON STUDY HABITS

Student	Experimental Group	Control Group
Jerry	58	54
Lewis	52	53
Tom	50	50
Michael	44	50
Sam	44	47
John	43	42
George	41	41
Carl	41	37
David	39	36
Bill	38	28
Neil	27	25
Dick	21	19
Mean	41.5	40.2
Mean difference = 1.3		
t = .29	df = 22	P > 0.05

Peer status has come to be recognized as a factor to be reckoned with in any analysis of adolescent behavior. Since the writer accepted the conclusions of earlier studies that underachievement is intricately connected with the interrelationships of individual personality factors, it seemed pertinent to determine to what extent these boys are accepted and/or rejected by their classmates. In this connection Kuhlen and Bretsch found evidence of subjective insecurity on the part of unaccepted ninth-graders and of unfavorable attitudes toward school among those least acceptable.[1] The writer believes that these sociometric data will contribute to an over-all picture of the personality constellations of those boys in the experimental group who give evidence of working through inner conflicts in the course of the experimental experience. They will be particularly important in the analyses of individual cases.

The sociometric approach required a careful presentation. The writer explained to the students in each homeroom that seating arrangements for the study to be undertaken would necessitate having information that only they were in a position to supply. She stressed the fact that no one else would see the information and that whatever was written would be held strictly confidential. In each of the six homerooms to which the boys in the present research belong the given directions provided the following sociometric data:

1. First, second, and third choices of boys or girls in the homeroom with whom the student would <u>like most</u> to associate.

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[1] Raymond G. Kuhlen and Howard S. Bretsch, "Sociometric Status and Personal Problems of Adolescents," <u>Sociometry</u>, X (May, 1947), 122-32.

2. First, second, and third choices of people whom the student wished most to avoid.

3. First, second, and third nominations of ideal students in respect to study habits.

4. First, second, and third designations of students furthest from the ideal as far as study habits were concerned.

A sociometric tabulation of this material for each of the six homeroom groups provided data for sociograms that mapped out the acceptance and rejection forces operating in and on the underachieving boys. Bach calls the total number of positive choices less the negative ones an "acceptance score."[1] In order to facilitate the use of his technique, the writer assigned the following values to the order of choices: first choice, 3; second choice, 2; and third choice, 1. Rejections, likewise, received their weights: wished to avoid most, -3; wished to avoid "less" most, -2; and wished to avoid "least" most, -1. The acceptance scores derived therefrom for each boy in the experimental and control groups may be found in Table 6.

The range in "acceptance scores" in the two groups points up the factor of uniqueness in personality within these groups of boys. In the experimental group there is a spread of 37 against 18 in the control group. The mean for the experimental group is -3.9, whereas that of the control group is .67. When the t-test was applied to determine statistical significance in the difference between the means, its result was 1.2. At 22 degrees of freedom $t_{.05}$ is 2.07. The above difference of 1.2 in means for "acceptance scores" may, therefore, be due to chance and may be considered statistically nonsignificant.

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[1] George R. Bach, Intensive Group Psychotherapy (New York: Ronald Press Company, 1954), p. 187.

TABLE 6

PEER-ACCEPTANCE SCORES OF UNDERACHIEVING BOYS

Student	Experimental Group	Control Group
George	8	10
Jerry	7	8
Tom	7	8
Michael	2	4
Carl	0	3
David	0	0
Neil	-3	0
Bill	-4	-4
John	-4	-4
Lewis	-8	-4
Sam	-23	-5
Dick	-29	-8
Mean	-3.9	0.67
$t = 1.2$	df = 22	$P > 0.05$

Following a similar procedure, the writer determined a score for each underachiever on the peer evaluations of study habits. Using these two sets of data, she made a rank-difference correlation for the experimental group. Rho was found to be .29. The Pearson r, which is practically equivalent to rho, to be statistically significant at the 5 per cent level of confidence would need to be .58. It may be said, therefore, that the rho of .29 is not statistically different from zero. The relationship between "acceptance scores" and study habits scores in this sample is low and precludes establishing the existence of any relationship in the population from which the sample was drawn. Table 7 indicates the rank of each boy in the experimental group on the two scorings.

An appropriate measure of reliability for the projective tool used in this study posed a problem. Symonds pointed to the absence of accuracy and consistency in the very nature of such material and showed that split-half reliability would be meaningless under such conditions.[1] As an approach to reliability Sargent compared the ratings of judges and interpreters. Her argument was: "If a group of judges, using predetermined criteria for judgment, agree among themselves in the scoring of a number of protocols, reliability for the yardstick chosen is usually assumed."[2] The writer accepts this statement and has employed it in this study.

The coefficients of correlation between the judges' ratings of the individual items on the ten protocols are given in Table 8.

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[1] Percival M. Symonds, Adolescent Fantasy (New York: Columbia University Press, 1949), p. 44.

[2] Helen Sargent, "Projective Methods: Their Origins, Theory, and Application in Personality Research," Psychological Bulletin, XLII (May, 1945), 276.

TABLE 7

EXPERIMENTAL GROUP-ACCEPTANCE RANK COMPARED WITH STUDY-HABITS RANK

Student	Acceptance Score Rank	Study Habits Score Rank
George	1	10
Jerry	2.5	7.5
Tom	2.5	4
Michael	4	3
Carl	5.5	1
David	5.5	6
Neil	7	9
Bill	8.5	2
John	8.5	7.5
Lewis	10	5
Sam	11	11
Dick	12	12

rho = .29

TABLE 8

CORRELATION BETWEEN JUDGES' RATINGS OF PROJECTIVE DRAWINGS[a]

Judges	Drawings 1 and 2 (r)	Drawings 5 and 6 (r)
A and B	.937	.930
A and C	.696	.760
B and C	.697	.746
Mean z	1.14	1.21
Corresponding r	.81	.84

[a]Based on ten cases from the preliminary run.

The writer believes that mean r's of .81 and .84 warrant the assumption that the judges' ratings of the projective material are sufficient for her purposes.

Validity for the projective technique under discussion will be assumed if significant changes appear in the tests the writer gave before and after the experimental experience. It will, therefore, receive consideration later in the presentation of the outcomes of the study.

The judges met to compare the separate ratings in the first set after the writer had completed the statistical analysis of such ratings. The judges added several operational distinctions to their

criteria as refinements in its final use. In this way they hoped to obviate the gross discrepancies of the first array of ratings. The writer believed that her own judgments might have been weakened by the fact that she had become personally acquainted with each pupil in the preliminary situation and had summarized all of the data prior to rating the projective material, whereas the other two judges had not had these experiences. She planned to avoid these conditioning factors as far as possible in the research proper.

As a check list for the rating of the basic projective drawings the judges used Murray's complete list of needs. In addition, the check sheet contained a seven-item list on which the judges scored the presence of an over-all awareness of conflict and/or insight in the individual scripts. The list of needs and their definition, as well as a sample check sheet, may be found in Appendix A, p. 122f. As in the preliminary run, the tabulation of needs was made on the basis of the total categories used by the three judges.

The "areas" of investigation finally selected for the revised research design may be summarized briefly under the following headings:

I. General measures of adjustment

   A. Cowan Adolescent Adjustment Analyzer

   B. Sociometric test, tabulations, and sociograms

II. Specific factors in personality adjustment and achievement

   A. Study habits and attitudes

      1. Teacher perceptions as revealed in ratings

      2. Self-perceptions as expressed on SSHA Inventory

B. Conflicts and resistance

1. Revealed in projective drawings

2. Expressed during discussions

C. Insight

1. Judged present in projective drawings

2. Expressed and/or worked out during group meetings

3. Revealed in the course of individual interviews

D. Change in pupil achievement

1. Comparison of report-card marks for the two semesters

Wherever the data lent themselves to quantification and where inferences apparently were justified, the writer has made generalizations for the group of underachieving boys in this study. In addition, two cases were singled out for individualized treatment. It was hoped that these separate analyses would serve to point out the unique benefits over and above favorable changes in learning and attitudes toward learning which group guidance employing the writer's projective technique induced in the twelve subjects concerned. Names have been changed to preserve the subjects' anonymity.

CHAPTER III

THE DATA SPEAK

The effectiveness of group guidance, utilizing the projective device originated for this study, will be assayed in this chapter. The writer hypothesized that in the group-guidance situation the adolescent boy underachiever will in the course of creating a series of projective drawings and verbalizations (1) express and work through inner conflicts of which he may be otherwise unaware and with which he has been unable to deal; and (2) experience changes in learning and attitudes toward learning that will be reflected in his scholastic achievement. The research design embraced the following variables: individual personality needs, awareness of conflict and/or insight, study habits and attitudes, and scholastic achievement symbolized in report-card marks.

Life Styles

Fundamental to every human personality are basic needs or drives: first, as a biological organism; second, as a psychological entity; and finally, as a social being. In this study the writer employs the following definitions by Murray:

> Manifest or overt need (objectified) is all action that is "real" (seriously and responsibly directed towards actual objects) whether or not it is preceded by a serious intention or wish. Latent need includes semi-objectified needs (overt activity playfully and imaginatively, without responsibility, directed

towards imagined objects) and subjectified needs (all need activity finding no overt expression).[1]

In the adolescents who participated in this research, the satisfaction of certain needs and the underprivileged condition in respect to others may be read in their overt behavior, in their traits of character, and even in their abilities and deficiencies. The unique personalities with the dynamics pertinent to the research germinates therefrom. While the limitations of the research design rule out any definitive presentation of adolescent needs or drives, the instrumentation does expose patterns which seem to be operating obstructively in the individuals as they function in their school environment. Such data not only serve to facilitate insight into life styles, but also enlarge the comprehension of the underachieving syndrome.

Maladjustment clusters.--The primary objective in administering the Cowan Adolescent Adjustment Analyzer to all the boys under consideration for participation in this research was to provide the writer with data for screening those who were seriously maladjusted. At the same time, however, it served to point out areas of maladjustment of lesser import in those adolescents who became members of the two groups in the study. While their inclusion in the research program implies a limitation in the number of areas in which maladjustments were revealed, it may prove rewarding and will certainly enhance the security of later conclusions to note the maladjustment constellations for the experimental group and the concentrations for both the experimental and control groups.

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[1] Henry A. Murray, Explorations in Personality (New York: Oxford Press, 1938), p. 111f.

The composite data for the two groups may be read in Table 9, while the individual readings for the experimental group comprise Table 10. There are three areas in which 37.5 per cent of these twenty-four adolescents show the greatest number of maladjustments. They are fear, family authority, and feeling of inadequacy. In all three categories, the greater number of the boys have T-scores below 40 which, according to the authors of the instrument, "indicates an individual of a socially conforming type capable of repression of

TABLE 9

AREAS OF CONCENTRATION OF PERSONALITY MALADJUSTMENTS[a]

Category	Tallies Under 40 T	Tallies Over 60 T	Total	Per Cent of Total Tallies
Fear	6	3	9	37.5
Family emotion	1	2	3	1.25
Family authority	8	1	9	37.5
Feeling of inadequacy	6	3	9	37.5
Nonfamily authority	2	5	7	29.2
Immaturity	2	1	3	1.25
Escape	5	2	7	29.2
Neurotic	5	2	7	29.2
Compensation	2	2	4	1.7
Totals	37	21	58	

[a]This compilation represents the maladjustments revealed on the Cowan Adolescent Adjustment Analyzer profiles of the boys in both the experimental and control groups.

TABLE 10

INDIVIDUAL VARIATIONS TOWARDS PERSONALITY ADJUSTMENT IN NINE CATEGORIES OF CONFLICT[a]

Category	Bill	Carl	David	Dick	George	Jerry	John	Lewis	Michael	Neil	Sam	Tom
Fear	×[b]	×	×	×	×	×	-	×	+	×	-	+
Family emotion	×	×	×	×	×	-	×	×	×	+	×	×
Family authority	-	×	×	×	×	×	×	×	-	×	×	×
Feeling of inadequacy	-	+	-	×	×	×	×	×	×	×	-	×
Nonfamily authority	-	×	×	×	×	×	×	+	×	×	×	-
Immaturity	×	×	-	×	×	×	×	×	×	×	×	×
Escape	×	+	-	×	+	-	×	-	×	×	×	×
Neurotic	×	×	×	×	+	×	×	×	×	×	×	×
Compensation	×	×	×	×	+	×	×	×	×	+	-	×

[a]These categories represent the areas on the Cowan A.A.A. in which the members of the experimental group expressed maladjustment answers.

[b]Symbols to be read as follows: -, score below 40 T; ×, score within 40-60 T limits; +, score beyond 60 T.

his own conflicts and wishes thrcugh adherence to standards set by others."[1]

As regards the fear category, the authors explain that their data have disclosed no relationship between the presence and admission of fears with any total adjustive pattern. They suggest that the individual score be interpreted in terms of everything known about the subject. Further analysis for the individuals concerned herein will necessarily depend upon the patterns the remaining data may form. The basic conflicts of adolescents, it was found by the authors, arise in the areas of family emotion and family authority. They declare that scores lying beyond what they term "normal limits" suggest that the individuals are contending with an unusual degree of conflict, while T-scores below 40 warrant suspecting conscious or unconscious repression.[2]

Every tally plotted on the profiles of the instrument represents a maladjustment answer made by the underachieving individual. According to the norms which the authors used, a maladjustment score, in any category, that falls between 40 T and 60 T may be considered "normal." In other words, only the boys whose scores are above the 60-T limit may be considered contending with an unusual degree of conflict and only those whose scores are less than 40 T are suspected of repression. As noted earlier, the 40 T marks the limit of one standard deviation below the mean, while 60 T delimits one standard deviation above the mean. Table 10, then,

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[1] Edwina A. Cowan, Bentley Barnabas, and Wilbert J. Mueller, "Manual of Directions and Interpretative Guide--The Cowan Adolescent Adjustment Analyzer" (Emporia, Kansas: Bureau of Educational Measurements, 1949), p. 3.

[2] Ibid.

discloses the categories in which the members of the experimental group are contending with an unusual degree of conflict or may be suspected of repression as well as those in which the maladjustment scores are "within the normal limits."

The same table indicates that, in most cases, the members of the experimental group were consistent in their extremes of maladjustment. For Bill, David, Jerry, and Sam, repression was indicated. The writer attempted to show in the final evaluation of data whether they moved toward a more realistic appraisal of their abilities and of the efficiency with which they may be expected to function along with an acceptance of their limitations. On the other hand, Carl, George, and Neil appeared to be contending with unusual degrees of conflict. For them the writer expected final evidence that the research experience did or did not provide the kind of climate wherein they were able to work off some of their excess preoccupation with inadequacies. Such contrasts in personality conflicts emphasized the uniqueness of every case of underachievement and lent support to the individualized approach of this study.

A second trio of maladjustments shows up in Table 9: non-family authority, escape, and neurotic symptoms. It appears that the boys concerned were expressing their conflicts in the first category, but repressing them in the other two. As the writer presents the ensuing data there may be indications of movement toward adjustment in the individuals in whom Table 10 reveals maladjustments of this nature.

While it is beyond the scope of this study, it is still interesting to speculate about the question whether underachieving adolescent boys would generally have T-scores below 40 on the Cowan Adolescent Adjustment Analyzer. In this connection it seems pertinent to note that Kimball found the twenty-four cases she studied

similar in the following respects: tendency toward passivity, less ability to give effective expression to negative feelings, and inferiority feelings and negative reaction to barriers to success.[1]

Projective data analysis.--Basic to this study is the assumption that scholastic achievement merits approval in the cultural environment of the adolescent boys concerned. Underachievement, therefore, represents a barrier to an acceptable goal and bankruptcy in terms of its inherent values. It was hypothesized that those boys in whom the related needs are obstructed suffer inner conflicts. It was likewise hypothesized that the projective device would give these underachieving adolescent boys the opportunity to express needs that might be influencing their patterns of underachievement. Table 11 reveals a trio of needs each boy in the experimental group expressed in his projective material. The same table indicates the dominant cluster of five needs common to the entire group.

The source of these data was each boy's series of four projective drawings made at the beginning of the first two and the last two group-guidance meetings. The criteria for their evaluation relied upon Murray's definitions of basic needs or drives (Appendix A, pp. 122-125). The tabulations for each member of the experimental group were computed from the data upon which Table 11 is based. Each tabulation sheet summarized the number of times the three judges found a need expressed in both the early and late drawings. From a rank order of needs as tallied by the three judges, the writer noted the three needs that dominated in each individual's drawings. The variation in these individual clusters of the three most prominent needs is covered by the nine categories of Table 11. For computing

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[1] Kimball, op. cit., p. 329f.

the total score for each of these categories the following magnitude valuations were employed: I, 3; II, 2; and III, 1.

It seems to the writer that the prominence of achievement and cognizance in the individual trios establishes the point that the cultural environment of these boys puts a value on meeting educational aspirations and these boys give assent to it. The individual variations in other expressions of needs prompt the reiteration of the unique character of underachievement factors.

In the research design employed in this study, directives for the projective drawings were structured for ventilation of adolescent conflicts related to report-card marks as symbols of achievement. The directives for the last two drawings suggested creating a second script according to the structuring of the first two drawings. This permits a comparison of the total number of needs expressed early and late in the experimental experience. The writer hypothesized that the individual who expressed inner conflicts would receive a lower needs score on the last two drawings. Table 12 indicates the judges' evaluation of the needs expressed by each boy in the experimental group. The mean for the first two drawings is 33.2 and for the last two it is 26.8. The mean difference is 6.4 and the t-score is 2.67. Entering the table of t at 22 degrees of freedom, $t_{.05}$ is 2.07 and $t_{.01}$ is 2.82. It may be claimed, therefore, that the difference in the means is significant beyond the 5 per cent level, but less than at the 1 per cent level. Since it was arbitrarily decided to use 5 per cent as the limit of significance, it is clear that the data sustain the first term of the hypothesis.

The projective tool, it was hypothesized, would provide opportunity for awareness of conflict and/or insight as well as for expressing needs. An additional evaluation, therefore, was made of the projective material for awareness of conflict and/or insight.

TABLE 11

PROMINENT NEEDS IN ORDER OF MAGNITUDE EXPRESSED IN PROJECTIVE DRAWINGS OF EXPERIMENTAL GROUP

Needs	Bill	Carl	David	Dick	George	Jerry	John	Lewis	Michael	Neil	Sam	Tom	Totals[a]
Achievement .		III	I		II	III		III	II	II	II		14
Aggression . .	I								I				6
Autonomy . . .				I					III		III		5
Cognizance . .	III		III		I		I			I		II	13
Defendence . .		I		II		I		I					11
Dominance . .	II			III				II			I	I	11
Exhibition . . .						II							2
Exposition . .		II			III		II		III	III		III	8
Understanding			II				III						3

[a] Magnitude valuations are as follows: I, 3; II, 2; and III, 1.

TABLE 12

COMPARISON OF NEEDS EXPRESSED IN EARLY AND LATE PROJECTIVE DRAWINGS

Student	Drawings 1 and 2	Drawings 5 and 6
Bill	22[a]	23
Carl	18	12
David	41	27
Dick	34	30
George	41	27
Jerry	15	22
John	27	27
Lewis	41	31
Michael	26	12
Neil	30	33
Sam	64	43
Tom	39	34
Totals	398	321
Mean	33.2	26.8
Mean difference = 6.41		
t = 2.67	df = 22	P < 0.05

[a]The score for each boy represents a total of the needs-score for the respective two drawings made by all three judges.

The score sheet on which the three judges had tallied the needs' expressions for each boy provided a list of six categories (with space for others) which the writer considered areas of adolescent conflict related to learning (Appendix A, p. 125f.). The judges gave a score for awareness of conflict and/or insight in any of the given areas as they found them in each pair of drawings. Table 13 points to the areas in which the judges found such evidence of awareness of conflict and/or insight for each pair of the boys' drawings. The total of tallies on drawings 1 and 2 is 22; on drawings 5 and 6 it is 56. The mean for the former is 1.8 and for the latter it is 4.7. The mean difference of 2.8 when tested for statistical significance yielded a t of 3.267. Entering the table of t at 22 df, $P < .01$ warrants the assertion that the experimental experience provided the underachieving boys the opportunity to work through inner conflicts of which they were otherwise unaware and with which they had been unable to deal.

The two areas which the twelve boys indicated as sources of conflict or about which they appeared to have gained insight most often are: "didn't like the subject" and "impotence-frustration." Inasmuch as in only two cases were there scores for both, there seem to be no grounds for inferring a direct relationship between these categories. Three of the five boys who were judged aware of impotence-frustration in the final drawings are eleventh-grade boys. This poses a question about the grade and age level at which adolescents are best able to face the shortcomings implicit in underachievement without becoming discouraged and submissive under it. The limitations of the research design exclude such an exploration, but the findings might point to this as an area in which further investigation may be worth while.

TABLE 13

AWARENESS OF CONFLICT AREAS IN EARLY AND LATE PROJECTIVE DRAWINGS

Student	Age	Grade[a]	Area[b]							Total
			I	II	III	IV	V	VI	VII	
Bill	16	J						0--3[c]		0--3
Carl	17	J		3--3				3--3		6--6
David	16	S		0--3				0--1	0--2	0--6
Dick	15	S			0--2	1--0		3--5		4--7
George	15	F					3--3			3--3
Jerry	18	J						1--1		1--1
John	16	S		0--3	0--1					0--4
Lewis	14	F				2--0				2--0
Michael	14	F	0--1	5--3	0--7					5-11
Neil	16	J	0--1	0--4					0--2	0--7
Sam	14	F	1--0	0--5						1--5
Tom	15	S		0--3						0--3
Totals			1--2	8-24	0-10	3--0	3--3	7-13	0--4	22-56

$t = 3.267$ df = 22 $t_{.01} = 2.82$ $P < 0.01$

[a]The letters designate the following: J, Grade 11; S, Grade 10; F, Grade 9.

[b]The areas represented are as follows: I, received poor grades; II, didn't like subject; III, disliked teacher; IV, resistance to pressure; V, lesser values paramount; VI, impotence-frustration; VII, other.

[c]The left tally in each column refers to Drawings 1 and 2; the right to Drawings 5 and 6.

The writer assumed that there was sufficient reliability in the evaluations of the three judges because of the mean correlations of .81 and .84 for the preliminary run. A further test of reliability was made on their ratings for the projective drawings of the experiment proper. Table 34 in Appendix B, page 143, indicates a mean correlation of .87 for both the early and the late pair of drawings. This rather high r, the writer believes, indicates it has adequately high reliability for the purposes of this study.

Content of supplementary discussion.--In the nondirective group-guidance atmosphere the discussions following the projective drawing experiences elicited data that complement the projective material. It seemed to the writer that the accepting role of the counselor and the climate of permissiveness facilitated the working out of conflicts that the drawings had tapped and uncovered. In presenting the following data from the counselor's notes, the writer is aware that the possibility of contamination is a limiting factor.

The discussion content, viewed in toto at the termination of the group meetings, seemed to be composed of expressions with negative and positive charges. The writer decided, therefore, to make two tabulations for each session beginning with the second. (The first meeting was considered a warming-up period and did not warrant any attempt at tabulation.) The negative factors broke into two large divisions, overt expressions of conflict and frustrations. The latter were divided into factors referring to individual teachers and again to subjects.

Individual perceptions and insight are the two broad categories in which the positive factors fell. The former lent themselves to subdivisions pertaining to study and to environment. There are, then, ten tables for the five sessions in which the writer attempted

a quantification of the discussion material. These tables may be found in Appendix D, page 145, while their summarization is presented in Table 14.

In general, the tallies in Table 14 correspond to the needs expressions on the projective drawings. The high awareness of conflict scores from areas II and III in Table 13 correspond to the heavy concentration in the frustrations: teacher-subject areas of Table 14. Likewise, the pronounced awareness of impotence-frustration (area VI), which related primarily to inability to study (see Figure 6, p. 105), in Table 13 is corroborated by the eleven tallies in the perceptions:study category of Table 14. It seems, too, that the low total on insight (seven) for meetings five and six as against ten for the second meeting (there is no recording for the first session) bears out the significant difference between the expressions of awareness of conflict and/or insight in early and late drawings, as indicated in the summation of Table 13. These data, the writer believes, contribute to a comprehensive view of the underachievement problem. They appear to lend emphasis to the conclusion that the group-guidance experience afforded the participating underachieving boys an opportunity to express inner conflicts.

As stated previously, Table 14 summarizes the data of the five discussion meetings. This number was too limited to draw reliable conclusions about a sequence or pattern of overt behavior in the participants. The second and fifth sessions show the greatest number of expressions of conflict, while the second and fourth have the largest number of tallies on insight. At no time does it seem that the group discussions were without value. In summation, the writer believes that according to the tallies of Table 14, arrived at subjectively, needs and perceptions were expressed in all the sessions.

Content of individual interviews.--A final focus on the developing awareness of conflict and/or insight gained in the course of the group-guidance experience is provided in the data of the individual

TABLE 14

ANALYSES OF DISCUSSION CONTENT

Meeting	Ex-pressed Conflict	Frustrations		Perceptions		Insight	Totals
		Teach-er	Subject	Study	En-viron-ment		
2	6	2	6		1	10	25
3	4		1	4		3	12
4	3	2	2	4		11	22
5	7	5	1	1		4	18
6	2	1	6	2	3	3	17
Totals	22	10	16	11	4	31	94

interviews which the writer held with the twelve members of the experimental group. These interviews, as described in Chapter I, were designed as a final opportunity for the subjects to express and work through inner conflicts. Their structuring focused on the following items:

1. The source of the individual scripts.
2. Individual judgments on adolescent learning problems.
3. Values perceived in the research experience.
4. Percepts of origin of individual learning difficulties.
5. Awareness of available help.

6. Insights on his unique problem and adjustments subject is making.

In general, the writer referred to some item from the boy's drawings that seemed to relate to the above objectives to provide a springboard for the subject to express himself. On a paper numbered according to the items she jotted key phrases as the boy talked. From these notes she wrote a full account of the interview when the student returned to his homeroom. With the exception of Dick, who seemed to be less at ease than in the group situation, the boys were eager to comment on the experimental experience and to generalize on learning problems of adolescents. Invariably, they would begin, "Now for me, it is like this . . ." or "I'll use myself as an example. . . ."

Table 15 represents a summary of the boys' points, made from the notes of the counselor. The numbers are too small in the subgroups to do more than offer shrewd guesses about possible trends, but several generalizations seem patent for the entire group. In offering them, the writer is conscious of the subjective aspect of the data. Two-thirds or more of the boys expressed a recognition of the following factors in their learning problem:

1. Student responsibility is the key to real learning.
2. Guidance was needed in the early elementary grades.
3. Resistance to the demands of study is a chronic condition.
4. The cultural pattern of values is significant.
5. Goals are important for holding attention.
6. Peer distractions are strong and mostly detrimental.

These six factors, the writer believes, form a syndrome that is basic to any effort at resolving the underachievement problems of the twelve boys in the study. Student responsibility and positive goals rightfully parallel a cultural pattern that posits the realization

of potentialities and dignity in the human personality. An honest appraisal of resistance to the demands of study and of contributing peer influences seems fundamental to a realistic approach to the difficulties faced by each boy in any effort at adjustment. Eleven of the boys pointed to an elementary grade as the level at which their problems originated. At that early stage, they imply, a resolution of their difficulties might have been the turn in the road to student responsibility that these underachievers have obviously missed. As adolescents, they are the controlling agents in whom rests the ability to convert into constructive patterns of achievement the energies dissipated in resistance.

Table 15 points to a differentiation along age and grade lines in respect to the insights gained into learning difficulties. Two ninth-graders, George and Michael, and three tenth-graders, Dick, John, and Tom, have the highest total scores on insights expressed. With the exception of Michael, who was fifteen in July, their ages at the time of the research experience were fifteen and sixteen. (John had just reached sixteen in February.) Three of the eleventh-grade boys, Bill, Carl, and Neil, have lower scores than most of the other members of the experimental group. Carl was seventeen and the other two, sixteen. It appears that the eleventh-grade boys were either at a level of maturity which precluded entering fully into a group-guidance program such as the research design set up or were less amenable to the group-guidance rationale. The writer finds in this distinction of results in insights expressed an indirect indication for early detection of underachievement. It appears, too, that the tenth grade might be the best level on which to initiate an adolescent drive on inefficient study habits. The grade and age disparity the writer found, however, might be the reaction to a minority feeling in the three older boys of the experimental group.

TABLE 15

UNDERACHIEVEMENT INSIGHTS FROM INDIVIDUAL INTERVIEWS

Insights	Grade 11				Grade 10				Grade 9			
	Bill-16[a]	Carl-17	Jerry-18	Neil-16	David-16	John-16	Dick-15	Tom-15	George-15	Lewis-14	Michael-14	Sam-14
Never learned self-discipline					×[b]	×	×	×	×			×
Ambivalence toward family	×											
Needs teacher's attention			×				×			×		
Self-responsibility learning key			×		×	×	×	×	×		×	×
Lack of will power					×		×	×	×			
Resentment toward pressure	×	×				×	×				×	
Needed guidance in grades	×	×	×	×	×	×	×	×	×		×	×
Resists demands of study	×			×		×	×		×	×	×	×
Conflict in values	×		×				×	×	×		×	×
School authoritarian		×		×		×					×	
Inadequate grade preparation			×	×			×				×	
Others mirror own poor study						×		×	×			
Cultural values significant			×	×	×	×	×		×	×	×	
Goals sustain attention			×		×	×	×	×	×	×	×	×
Peers detrimental		×	×		×	×	×	×	×		×	
Leader keys adolescent behavior			×		×	×	×	×	×			
Family problems impede learning		×						×	×			
Guilt anxiety causes emotional block								×				
Totals	5	5	9	5	8	11	13	11	12	4	10	6

[a] Each boy's age follows his name.

[b] "×" indicates that the student expressed insight in course of individual interview.

Any definitive conclusions on this point must await further research with underachieving boys in which grade lines will be sharply drawn.

The Educational Pay-off

The writer hypothesized that the underachieving boys, who had participated in the group-guidance experiences, would undergo changes in learning and attitudes toward learning that would be reflected in their scholastic achievement. The research design provided for a control group, matched with the experimental group as closely as possible, with which the experimental group would be compared in respect to the variables set up. Two measures were delineated as gauges of change in attitudes toward learning and of study habits: the SSHA inventory and teacher ratings on study habits and attitudes. Report-card marks in content subjects for the two semesters of the current year were converted into grade-point averages to facilitate an evaluation of difference in achievement in the two groups.

Prior to initiating the research proper, the writer administered the SSHA to all the boys in the grades concerned. Again, at the end of May, the boys in both groups handed in unsigned score sheets on the same inventory. Likewise, before any group meetings took place, the teachers of content subjects rated each boy in the two groups on a fifteen-item study habits and attitudes scale (Appendix A, p. 128). They made a second rating late in May. The research design provided that the identity of the members of the experimental group would be unknown to the teachers. In addition to handing in a final score sheet, each teacher presented an alphabetical list of the twenty-four boys on which he or she had checked the names of those boys in whom "change in attitude or study

habits suggests they were among the twelve in the group-guidance program." The tabulation of these data revealed that four boys in the experimental group were identified correctly, while six members of the control group were mistaken for participants. The writer believes that this attests to the absence of contamination in teacher ratings as far as knowledge of group membership goes.

Assaying study habits and attitudes.--The SSHA scores on the early and late inventories of the twenty-four boys involved in this study yield the measures of self-evaluation on study habits and attitudes which the writer used to establish significant difference in change between the experimental and control groups. As stated previously, the testees handed in their score sheets unsigned to encourage objectivity in their self-judgments. The papers had been marked, however, so that the writer might identify the subjects. Table 16 presents a tabulation of their data. The mean difference between the February and May tests for the experimental group is 5.3; that of the control group is -14.3. The difference between these differences is -19.6. Applying the t-test to determine the significance of this difference, the value of t was found to be 3.01. Entering the table of t at 21 degrees of freedom, $t_{.05}$ was 2.08 and $t_{.01}$ was 2.83. It may be asserted, therefore, that $P < .01$ and that the experimental group shows a significant difference in change over the control group in respect to study habits and attitudes.

Teacher ratings on study habits and attitudes for the twenty-four boys, made early in February and late in May, yield a second measure for assaying the difference in change between the experimental and control groups. The scale devised (Appendix A, p. 129) consisted of fifteen items on which the user had a five-point scoring range. The writer assigned progressive values of 1 to 5 to the

TABLE 16

EARLY AND LATE SSHA SCORES OF EXPERIMENTAL AND CONTROL GROUPS

Student	Experimental Group			Control Group		
	Feb.	May	Change Feb.-May	Feb.	May	Change Feb.-May
Lewis	85	88	3	97[a]	90	-7
Michael	81	80	-1	84	70	-14
David	72	68	-4	55	13	-42
Jerry	70	50	-20	40	8	-32
Sam	68	80	12	35	3	-32
Tom	60	74	14	41	37	-4
Dick	35	32	-3	30	22	-8
Bill	20	70	50	70	--	--
Neil	14	22	8	22	10	-12
Carl	7	15	8	20	20	0
George	6	3	-3	8	1	-7
John	4	4	0	18	18	0
Totals	522	586	64	450[b]	292	-158
Mean	43.5	48.8	5.3	43.3	26.6	-14.3
Mean differences				-0.2	-22.2	-19.6
	$t = 3.01$		df = 21		$P < 0.01$	

[a]No names are assigned to the control group. They are tabulated adjacent to the member of the experimental group with whom they were matched.

[b]Originally there were twelve in the control group. The percentile of the boy who is no longer in school was 70 on the February test. That yielded a mean of 43.3 for this group in February which was close to the 43.5 mean of the experimental group.

individual evaluations in order to arrive at a total score for each student. With the aim of compensating for "halo" effects and of avoiding extremes in judgment, she took an average of three teachers' ratings for each boy's final score. Table 17 discloses these data. The experimental group shows a mean change of 2.8 in May over the February mean; for the control group the change is 1.6. The writer employed the t-test to determine the significance of the difference between these differences (1.2) and found t to be .31. The table of t at df 21 shows $t_{.05}$ to be 2.08. It is apparent, therefore, that the difference between the differences in change in teacher ratings of the experimental and control groups on study habits and attitudes is not statistically significant.

As was noted earlier, the teachers who made these ratings were not aware of the identifications of the twenty-four boys who were members of the experimental group. The fact that they identified only four of them correctly and were mistaken about six of the members of the control group points to the absence of contamination from the knowledge of membership. There is a possibility, the writer believes, that the teachers may have been inclined to evaluate the underachievers with greater leniency early in February than late in May. In the former instance a new semester was just under way and optimism in respect to learning might have colored the ratings. In May, on the other hand, the possibility of failure for some underachievers in one or more of the content subjects might contaminate judgments of their study habits and attitudes. The research design contained no provision for investigating or compensating for this contingency.

Assessing achievement.--Underachievement for the boys in this study refers to a disparity between their intellectual abilities

TABLE 17

COMPARISON OF EXPERIMENTAL AND CONTROL GROUPS ON EARLY AND LATE TEACHER RATINGS[a]

Student	Experimental Group			Control Group[b]		
	Feb.	May	Change Feb.-May	Feb.	May	Change Feb.-May
Bill	38	30	-8	19	26	7
Carl	41	46	5	53	39	-14
David	39	49	10	37	34	-3
Dick	21	36	15	36	54	18
George	41	28	-13	42	46	4
Jerry	58	52	-6	28	31	3
John	43	48	5	41	40	-1
Lewis	52	40	-12	54	52	-2
Michael	44	55	11	47	45	-2
Neil	27	36	9	25	--	--
Sam	44	61	17	50	54	4
Tom	50	50	0	50	54	4
Totals	498	531	33	482	475	18
Mean	41.5	44.3	2.8	40.2	43.2	1.6
	$t = .31$		df = 21		P > 0.05	

[a]These ratings were made on study habits and attitudes. The scale used may be found in Appendix A, p. 128.

[b]No names were assigned to the members of the control group. They are tabulated adjacent to the member of the experimental group with whom they were matched.

TABLE 18

EXPERIMENTAL AND CONTROL GROUPS' GRADE-POINT AVERAGES[a] IN CONTENT SUBJECTS FOR TWO SEMESTERS

Student	Experimental Group			Control Group		
	1st Semester	2nd Semester	Difference	1st Semester	2nd Semester	Difference
Bill	2.5	1.8	-.7	1.7	1.8	.1
Carl	2.3	2.4	.1	2.6	2.5	-.1
David	2.5	2.5	0.0	2.5	2.1	-.4
Dick	1.8	1.8	0.0	2.7	2.7	0.0
George	2.3	1.8	-.5	2.5	2.6	.1
Jerry	2.3	3.0	.7	1.9	2.3	.4
John	2.5	2.0	-.5	3.1	1.9	-1.2
Lewis	2.6	2.3	-.3	3.0	1.8	-1.2
Michael	2.4	2.5	.1	2.1	2.3	.2
Neil	2.1	2.2	.1	1.8	--	--
Sam	2.9	3.8	.9	2.8	2.5	-.3
Tom	3.3	3.1	-.2	3.5	3.3	-.2
Mean	2.46	2.43		2.52	2.35	
Mean difference			-.025			-.236
$t = 1.014$			$df = 21$		$P > 0.05$	

[a] In computing these averages the following values were assigned to grades: A, 5; B, 4; C, 3; D, 2; and F, 1.

and their report-card marks in the regular content subjects. The writer hypothesized that for the members of the experimental group the group-guidance experience would effectuate a change in achievement that would not occur in the control group. The research design provided for the acceptance of report-card marks in the content subjects as evidence of achievement. The verification of the hypothesis, therefore, rests upon finding a significant difference between the mean difference of the experimental group in report-card marks of the first and second semesters and the difference between the mean differences in the two semesters' marks for the control group. To facilitate this, the writer derived a grade-point average from the two marks in a subject per semester by assigning the following values to the letter grades: A, 5; B, 4; C, 3; D, 2; and F, 1. Table 18 presents these data for both groups. The mean difference between the mean scores of the experimental group for the two semesters is -.025 and that of the control group is -.236. Using the t-test to appraise the statistical significance in the difference (-.211) between the differences of the two groups, the writer found t to be 1.014. Since $t_{.05}$ is 2.08 at 21 degrees of freedom, it is evident that the difference of the differences in achievement in the two groups is not statistically significant.

Inasmuch as a full summary of this study and conclusions will be presented in Chapter V, no further generalizations on the foregoing data will be made at this point.

CHAPTER IV

CASE STUDIES OF JOHN AND DICK

Since the uniqueness of the adolescent personality is the major premise in the assumptions of this study, it follows that the writer envisioned no blanket method, universally applicable for all cases, for solving the problem of underachievement. Rather, the effectiveness of the experimental procedure was posited upon a wide variation in the extent to which it would embrace the particular needs of individual members of the group. Whereas Chapter III presents the composite data and their conclusions, in this chapter two cases provide for a greater specificity and interpretation. John and Dick are polar in most respects and their patterns of response offer interesting examples of individualism.

John

As the records read.--John was sixteen within the week in which the group first met. His IQ is 123 on the Terman-McNemar Test of Mental Ability, but his report-card marks for the first semester, in the three content subjects he was carrying, were only F, C+, and C-. He gives the impression of being somewhat taller than the average of his class; he is handsome; and he appears to be in good health. Within the half-year he was absent only two days.

As others see him.--The sociometric data for John's homeroom reveal him as first and second choice of two boys who have

definite patterns of rejection. In addition, he is "least liked" by two boys who hold positions of prestige in the group. John's acceptance score is -4. The average for all the boys in his homeroom is -.4, but when the scores for the five boys taking part in the research are withdrawn, the room average for the boys becomes 1.4. The sociogram for his homeroom, found on page 144, in Appendix C, indicates that John's third choice is the boy who seems to hold the position of greatest power among the boys in the class. In contrast, three of the people choosing him are rejectees and the fourth has little prestige. Since both John and the boy whom he designates as first choice express a preference for Al, who appears to command the "key position," it is reasonable to conclude that John has a desire to "belong."

In the sociometric tabulation of ratings for the "best" and "poorest" student the boy who is John's first designee has a much higher score than Al. The latter, however, is not generally classified with the "poor students." The conclusion seems justified that popularity or status aspirations among his peers do not contribute to John's underachievement. Further, this may well be an area in which the dynamics involved in solving his conflicts will contribute to constructive change.

Personality factors.--From John's profile on the Cowan Adolescent Adjustment Analyzer it appears that he is making normal and satisfactory adjustments. In the Fear category only, he falls below the 40 T-score. This might mean that he tends to oversuppress in this area. In all the other categories his scores are well within the normal range. Their pattern does suggest the question whether it is the common adolescent need for independence or a

resistance to feminine domination that prompts him to place a check against the following:

> Doesn't like to work with mother.
> Parents nag.
> Teachers bawling out.
> Afraid to go to the principal's office.
> Won't talk to the teacher.

Self-percepts on study habits versus teachers' ratings.--In the Survey of Study Habits and Attitudes Inventory John's February percentile score was 4. On eighteen of the thirty-six characteristics of "good students" John differed from the norms of the instrument. When the test was taken again in May John still fell at the fourth percentile, but he moved up on five counts with the "good students." In addition, his position was nearer in four other items for which he received no score. (The SSHA Inventory score cards take no account of the mid-point scoring range.) John's score sheet shows movement in the approved direction eleven times for which he gets no tally. Although his percentile rating in May was still 4, it is evident from these data that John did make progress in study habits and attitudes for which the provisions for scoring in the instrument do not make allowance. Moreover, the tallies herein seem sufficient in number to rule out the possibility of pure chance.

The foregoing conclusions about change in John's study habits and attitudes take on added significance in the light of the teacher ratings he received. As indicated in Table 5, page 47, John rated a score of 43 in February and his May score was 48. Two teachers named John as evidencing sufficient change in habits and/or attitudes to lead them to conclude that he had partaken in the group-guidance experience. These concomitant measures, the writer believes, attest

to the reliability of the judgment of progress in the matter of study habits and attitudes.

Projective material.--The projective device, it was hypothesized, would serve to reveal areas of conflict of which the adolescent underachiever might not be otherwise aware. It would, likewise, offer opportunity for ventilation, leading to eventual adjustment. The measure of this movement toward a more mature attitude in the learning area would be determined by comparing scores on needs and awareness of conflict and/or insight for the first two drawings with those of the last two drawings. Figures 1 and 2 represent John's first two projective drawings and Figures 3 and 4 his last two. Table 19 summarizes the judges' evaluations in terms of the needs expressed within the limitations of the criteria of the research design.

Since there is no difference between the totals for the two pairs of drawings, it appears that John has, in this respect and within the conditions set up, made no advance. The two needs of greatest magnitude, it will be observed, are cognizance and exposition. It is not surprising that a boy with John's intellectual abilities would, when given the opportunity, avail himself of continued ventilation in respect to both. Moreover, if insight for John depends upon evidence of putting order into disorder of his emotional reactions surrounding these needs, it may very well demand continued satisfaction of the cognizance and exposition needs.

Table 13 on page 67 does indicate, however, that the judges recognized an awareness of conflict and/or insight four times in the last two drawings, as compared to none in the first two. The counselor's log contains the following notation about John that has significance here. While the testees were finishing their last drawings

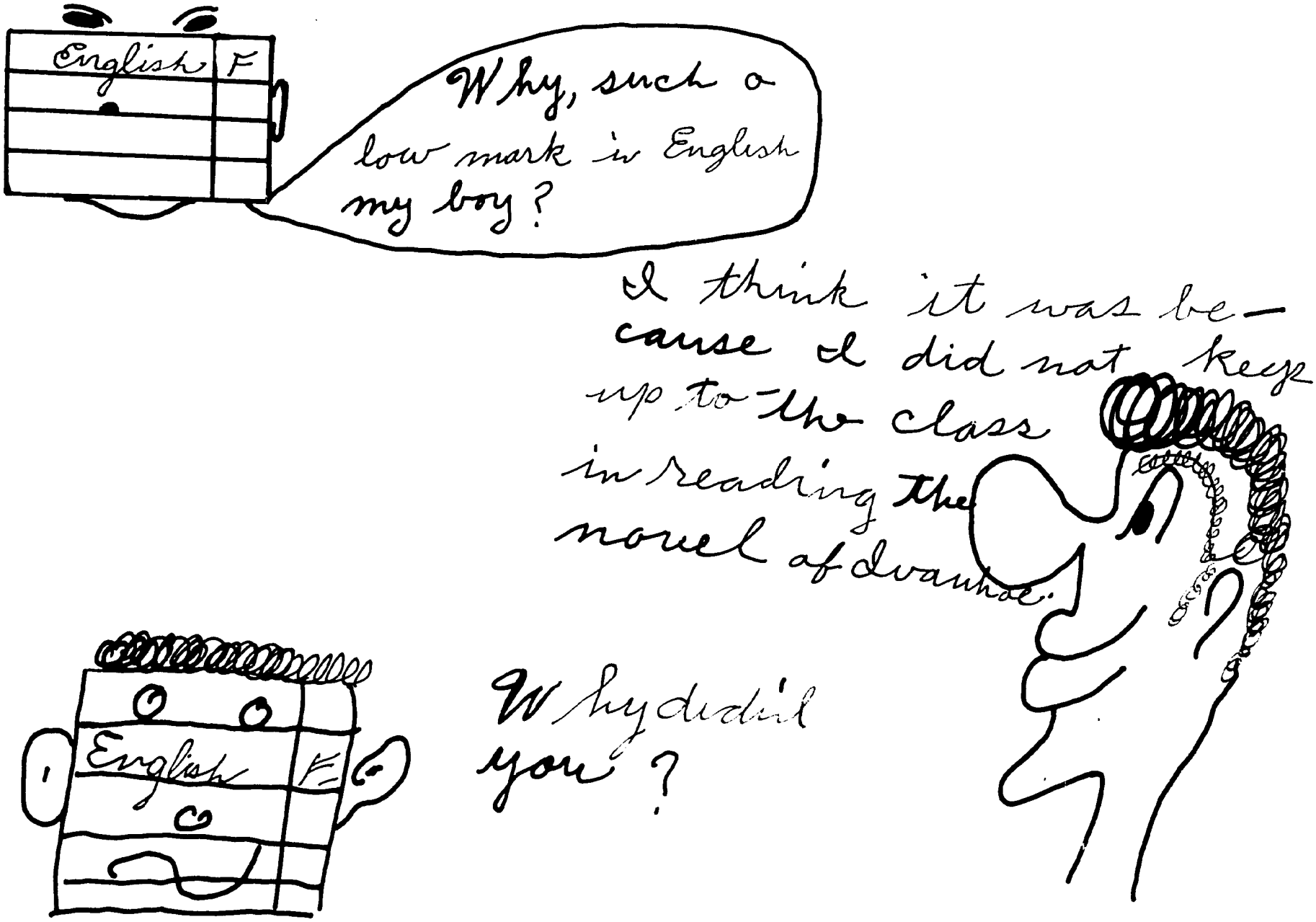

Figure 1. John's first projective drawing.

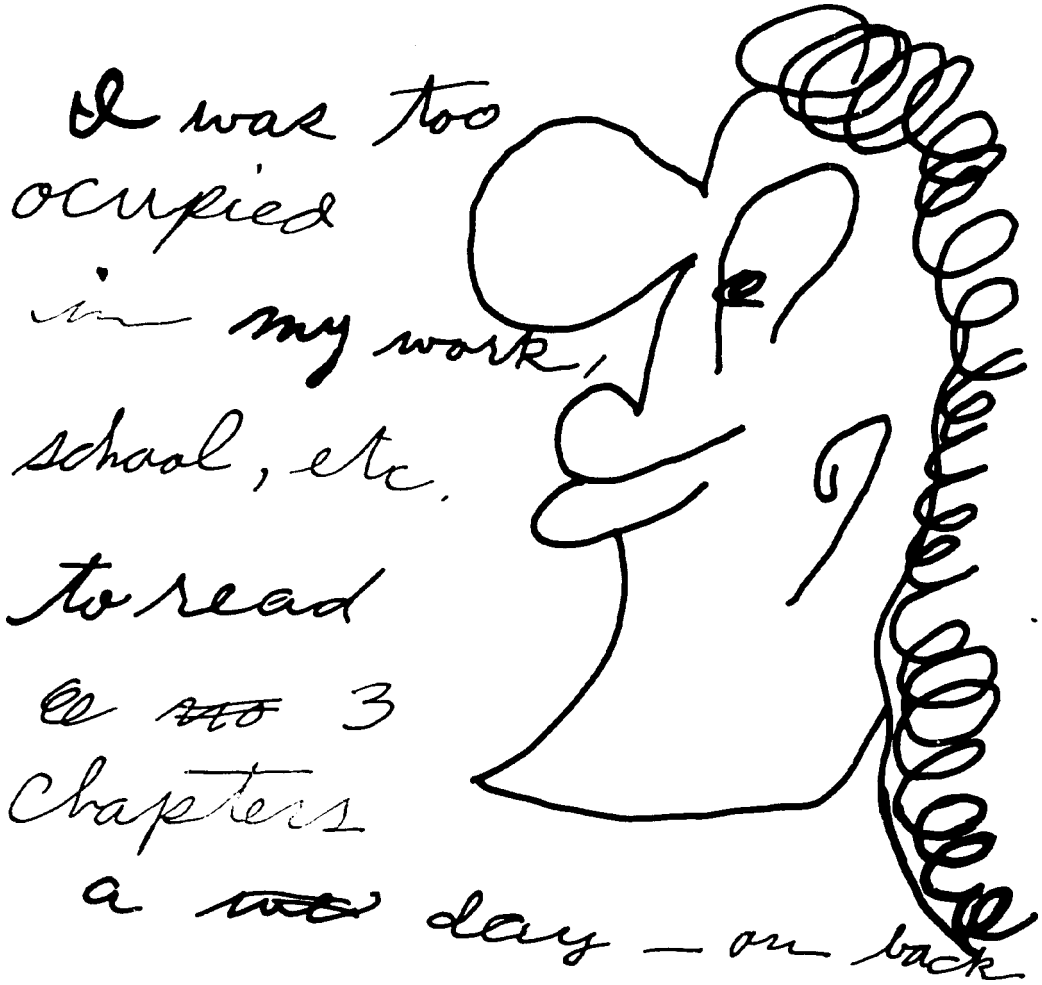



Figure 1 (Continued)

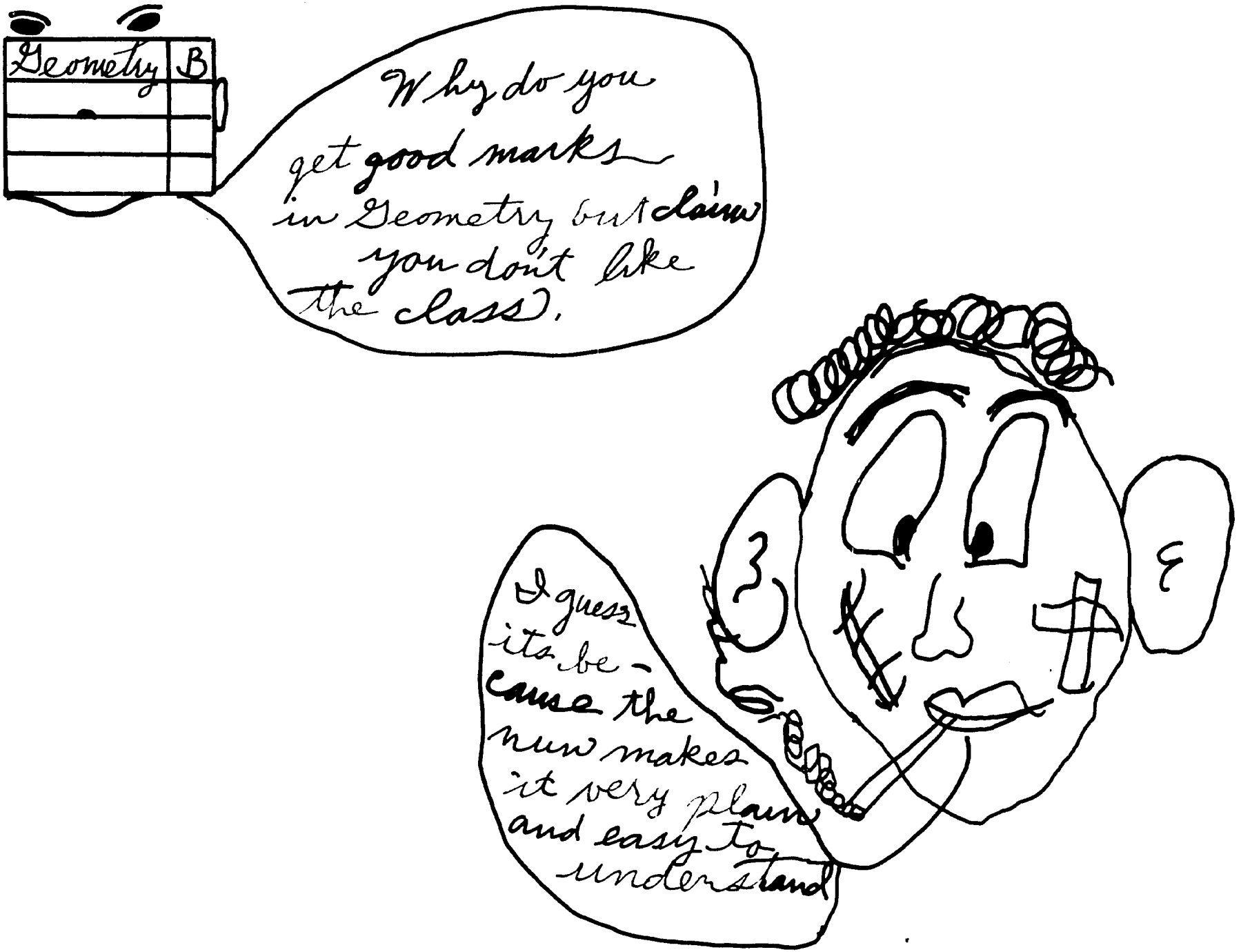

Figure 2. John's second projective drawing.

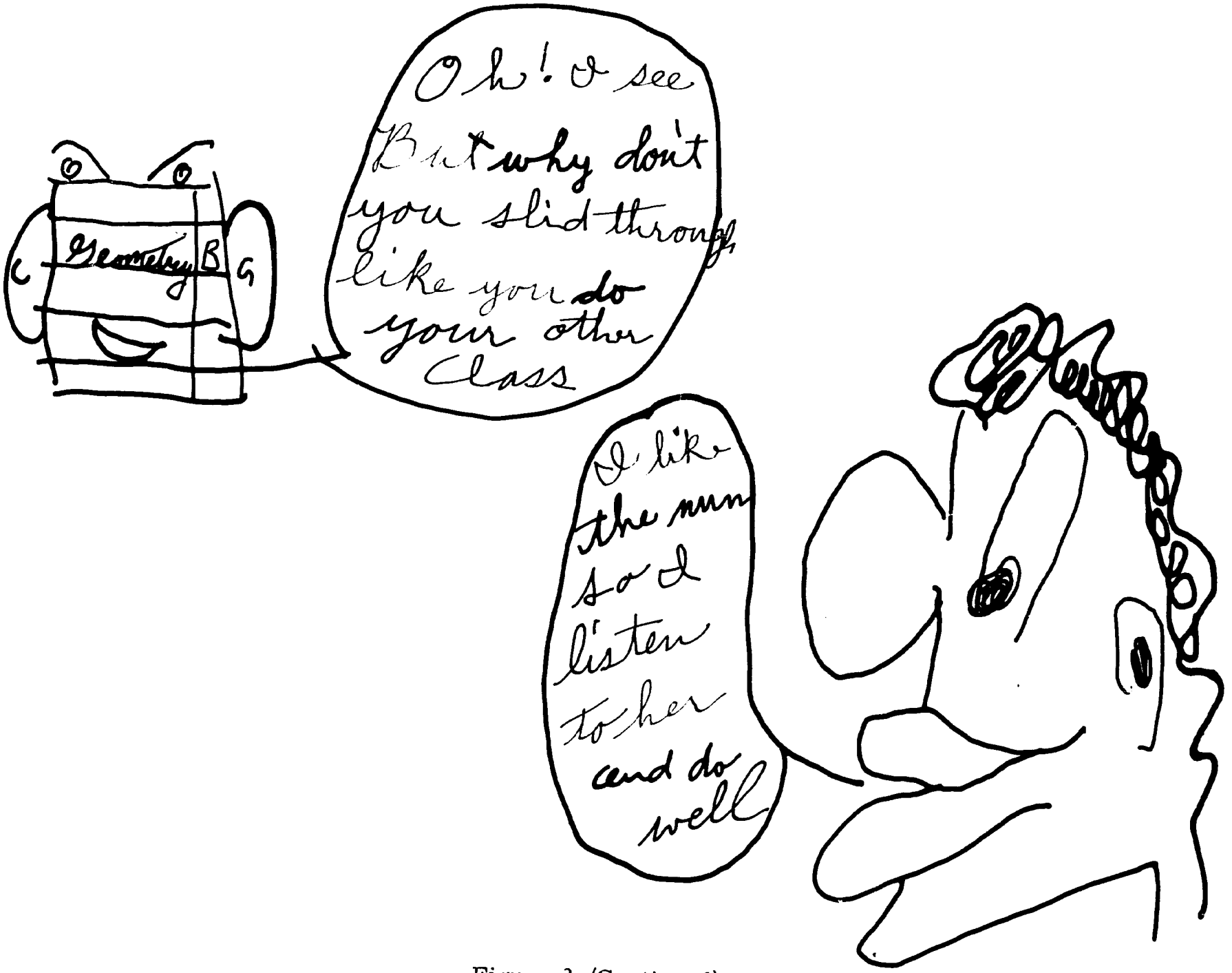

Figure 2 (Continued)

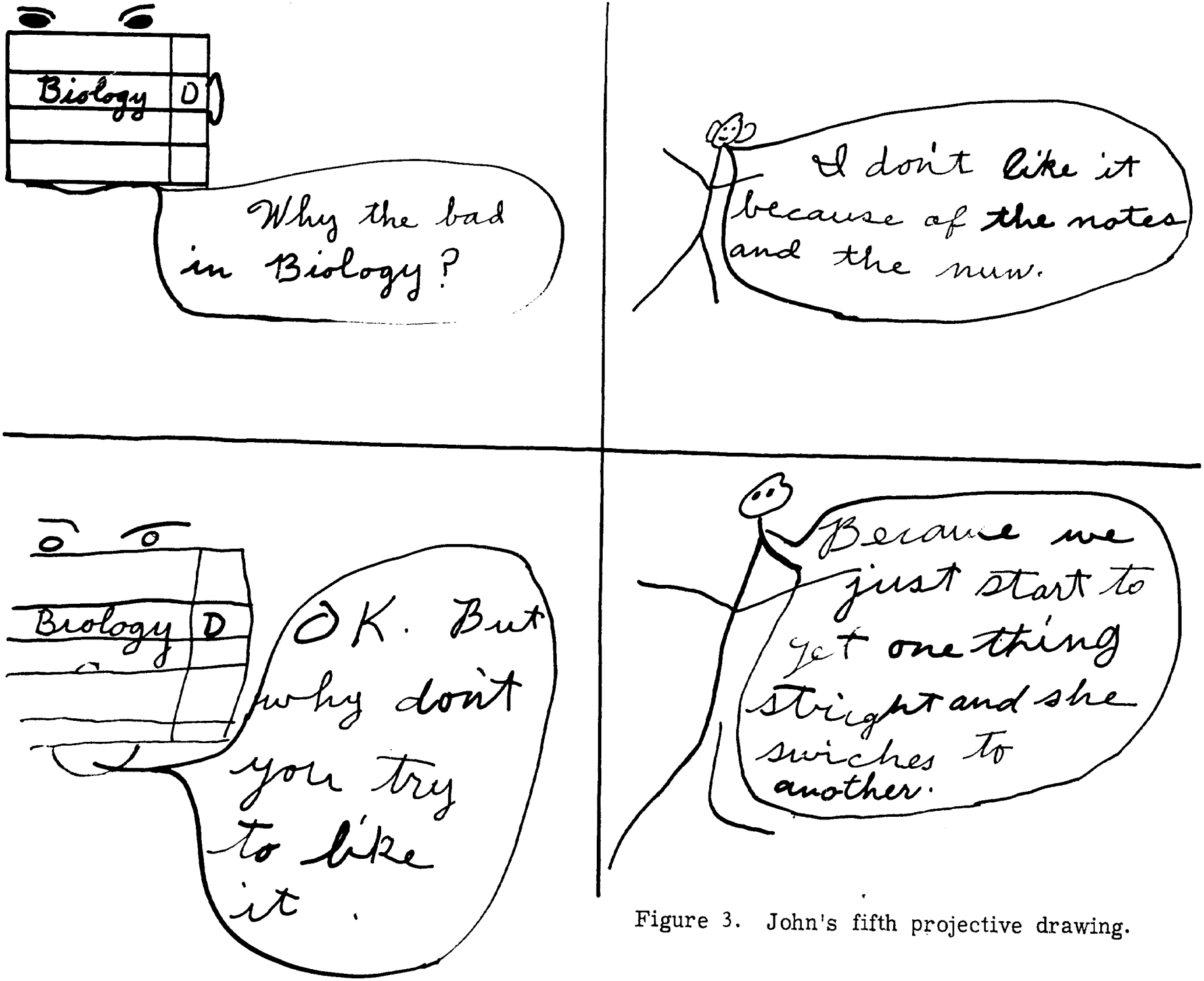

Figure 3. John's fifth projective drawing.

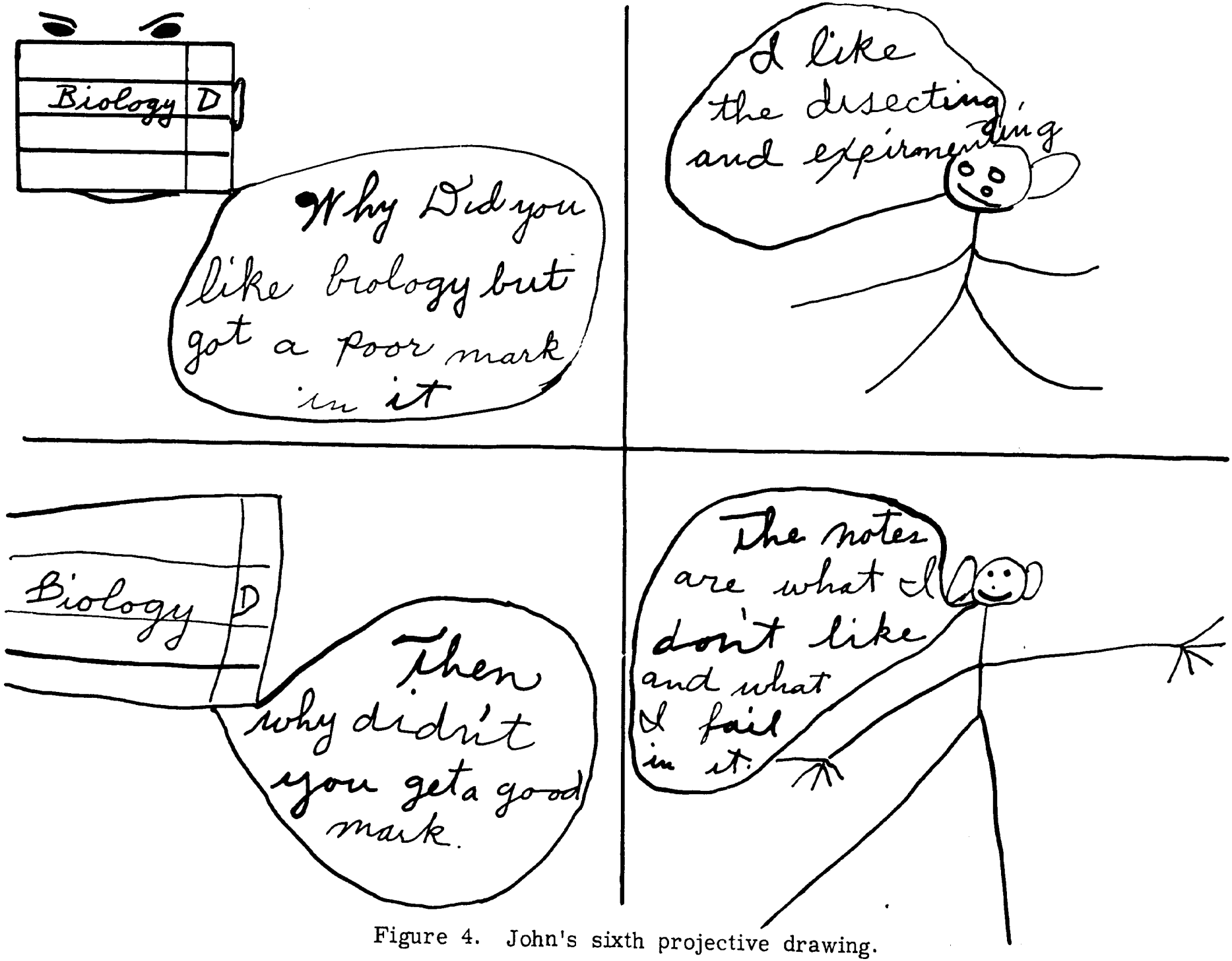

Figure 4. John's sixth projective drawing.

TABLE 19

SUMMARY OF NEEDS EXPRESSED IN JOHN'S DRAWINGS

Needs	Judge A		Judge B		Judge C	
	Drawings 1, 2	Drawings 5, 6	Drawings 1, 2	Drawings 5, 6	Drawings 1, 2	Drawings 5, 6
Cognizance	4	4	4	4	4	4
Defendence	0	1	0	1	1	2
Dominance	0	1	0	1	0	1
Exposition	4	2	3	2	4	2
Understanding	1	0	1	1	1	1
Totals	9	8	8	9	10	10

the counselor remarked that anyone who had a comment as to any worth-while aspects of the group experience might put it on the back of his last drawing. John, who always finished ahead of the others, turned his paper over at once and wrote, "It showed me I was just kidding myself in the way of school." On the strength of this declaration and the ratings of insight made by the judges, the projective device might be said to have served John in making an advance in the direction of adjustment in the learning area.

Discussion data.--Three characteristics of John were apparent in the first group meeting. For one thing, he worked faster

than the other eleven boys and finished with nervous dispatch. Secondly, composure and sustained interest seemed foreign to him. Finally, his "biggest gripe," taking a subject he didn't like, suggested that the discipline aspect of learning had never been fully accepted. It would seem that his adjustment must embrace an independent facing of those learning problems, as well as coming to terms with others of which he might become conscious. In the ensuing data, therefore, the writer will seek evidence of John's assuming responsibility for the problems he perceives as his and working out a solution compatible with his unique personality.

In the second meeting John made himself conspicuous moving about the room in his customary nervous manner. He picked up objects, examined them as if he were about to pull them apart, and then dropped them as if washing his hands of them. When his fancy hit upon something another boy had, he made no apology for appropriating it. In the one or two cases where the other boy offered some opposition, John managed to dominate. His contribution to the discussion was limited to making it clear that teen-agers were generally satisfied with just "getting by" as far as marks were concerned. At least he seemed to be trying to convince himself that that was as far as he intended to get involved. Such was the role John gave the impression of playing to the full.

The third discussion period had the meaning of marks for a nucleus. One boy recommended that they be eliminated altogether. This met with a general disagreement. John came to the defense of the grading system by declaring that marks let other people know "the kind of work you did." After listening to some give-and-take on this he daringly announced, "They help to make the kids who get A's popular." Vigorous dissenting put him on the defensive, but he came into rebuttal with, "They do for Joan _____."

Throughout his argument it seemed clear that John held the attitude that popularity was good and desirable and that marks tend to serve as a means of reaching such a goal. At this time, however, there was no indication that John was conscious of himself as the man in a mirror.

In preface to John's fourth drawing stint, he announced that he had a geometry test the next period and he was giving up a study period to attend the group meeting. He handed in his drawing with a flourish and asked to go to the back of the room to "study his geometry." In less than ten minutes the study was pushed aside to give preference to an animated conversation with the boy who had joined him.

In the meantime the other members of the group were exploring conditions of "interest" in a subject. The matter of student perception was given some consideration. The possibility of self-delusion offered the opportunity to point to the "geometry test preparation" as an example. Apparently John had managed to keep one ear tuned to the group discussion for he immediately broke in with, "I decided I could pass with a C so I let it go at that." With this, he swaggered to the front and reclaimed his chair. In answer to the counselor's "You're sure you will get a C?" John observed, "Sometimes I get less than I think I know and sometimes I get more than I thought I'd get."

Another boy put in the following "plug" for overlearning: "If you think you'll get a D and keep on studying to get higher you'll probably get a C or even a B." This was the springboard for a lively discussion that covered the subject from every angle and seemed to give John food for thought. It was unnatural for him to be in a "brown study," but something had obviously stimulated his capacity for pondering.

Again, in the fifth meeting, John assumed the "nuisance role." He reflected Dick's expressions of frustration when he wasn't annoying the boy opposite him. He gave an example of emotional blocking as an ordinary pattern of adolescent resistance to learning. His final suggestion to Dick's conflict was, "All I can see left for Dick is to pray for the teacher." The counselor's "You think Dick's prayers will produce a change in the teacher?" evoked the quick rejoinder, "No, but it might make him feel differently toward her."

In the final meeting John settled down to drawing without any comments. When he finished he asked, "Can I draw anything I feel like now?" He then made a full-page drawing of a Pall Mall character, signing his own name under it. It was on the back of this sheet that he wrote, "It [the meetings] showed me I was just kidding myself in the way of school." Aside from joining in a general agreement that teen-agers are not really interested in anything beyond the "average" or a "good mark," irrespective of whether it signifies a real understanding of the subject, John made no contribution to the general discussion.

The log kept for the group-guidance meetings presents evidence that John took advantage of the permissive atmosphere and the acceptance of the counselor. The group climate apparently contributed to his feeling of security in expressing himself and in his behavior. It is possible to trace his emotional ventilation that mounts from meeting to meeting until it reaches a peak in the fourth session. Its intensity is pretty well sustained in the fifth gathering, but a definite drop comes in the final meeting. The frank expression of insight on the back of his last drawing supports the assumption that the underachiever must work through his emotional conflicts before he is in a position to marshal the dynamic forces of his personality

to solve the learning problems with which he must wrestle. In John's case, insight proved to be more than a temporary flash. According to the judgments on the teacher ratings made at the end of May, he was assuming responsibility for his learning and he was giving evidence of moving in the direction of a greater self-realization.

"And so by indirection find direction out."--John came with gusto for his individual interview. With easy assurance he enumerated the factors implicit in the learning problems described in his projective drawings. He plainly "fell behind because he resented the demands on his time." Maybe he was lazy in putting off until the last minute the assignments he could have done in good time. Too much time was consumed in watching TV and he never had learned to discipline himself.

In referring to the group-guidance meetings, John felt that they helped him "bring out myself." They gave him the opportunity to "pick out myself--the way I studied, etc." "Seeing and hearing the other fellows was an encouragement." Again, John declared, "It showed me I was just kidding myself in the way of school."

Goals, John had come to realize, must be personal. Every student should set up his own; parents and teachers are in a position only to encourage the student in this personal responsibility. The ONLY METHOD for reaching such goals is earnest study. Not memorizing, but real learning is its foremost characteristic. In some way or other there has to be demand for homework; responsibility for it belongs to the student. Upperclassmen give encouragement by their example.

John expressed rebellion against "forever being told what to do." In spite of recognizing the need for standards, he resents many of the "pressures of school"; the "group deal" looms large

in his social values and he felt that many regulations could be delegated to it.

As far as he was concerned, John felt that learning problems have their beginning in the first and second grades. He suggests that something be done to help the student "reorganize his whole setup" before he comes into junior high. The group to which a boy belongs is "all-important." "The kind of kids in the group determines how much help they are to each other."

In an effort to make this clear, John mentioned Dick. "He could be smart, but he belongs to a gang that all quit school as soon as they can." If he really studied "they'd think he was a 'square.'" A second boy was pointed out as in a similar position. John told of how "they" (the Scout group) had taken him into their group and what efforts they were making to help him "see things differently." It is apparent that John's insight embraces the problems of others as well as his own.

Smart people, John remarked, were almost always accepted. It seems that he has visualized a tie-up between achieving and becoming a leader. His potentialities certainly warrant setting his aim for this twin goal. Moreover, all the evidence points to movement in that direction.

Achievement data.--Although it may be claimed that the part of the hypothesis that refers to the working out of personality conflicts is realized in John's reactions, his record of achievement does not give a like confirmation. Whereas his report-card marks for the first semester were F, C+, and C-, for the same subjects he earned three D's in the second semester. In the first subject, English, he did save himself from outright failure, but in the other two he fell lower. It may be pertinent to remember that by the

time John had given evidence of "working through his emotional conflicts" the middle of the semester had passed. Then, the favorable judgments on John's study habits and attitudes in May lend support to the explanation that the time after his "awakening" was too short to do more than save himself from out-and-out failure. The true measure, then, of the extent to which the achievement aspect of the hypothesis is realized in John will have to be projected into another year. The limitations of the present research, unfortunately, make no provision for this contingency.

In summary.--John's problem of underachievement at this point is not the unknown quantity that it was previous to the experimental experience. The SSHA Inventory data and teacher ratings indicate that John has become increasingly conscious of his deficiencies and is assuming responsibility for making adjustments. His evaluation of the group-guidance program was a clear testimonial to this right-about-face. He used the projective device primarily for ventilating his needs of cognizance and exposition. The fact that they were expressed to the same extent in the last pair of drawings as in the first pair seems to indicate the strength of these needs as well as their duration. His frank admission that all his scripts referred to himself settles the claim for the hypothesis in reference to the projective device.

It appears that, whereas the "working through conflicts" was not completely realized in John's drawing experience, the discussion periods seemed to fill out what was wanting to him. He appeared to utilize the group-guidance factors of permissive atmosphere, support from the presence of peers, insight from awareness of conflicts in others, peer reflection of emotional content, and counselor acceptance.

In his behavior emotional ventilation mounts up to and into the fifth meeting and then gives evidence of having spent itself.

The remainder of the hypothesis suffers in comparison. John's scholastic record appears to be no better in respect to report-card marks. The teacher evaluation, however, does point to change in the direction hypothesized. The writer believes that the apparent default at this juncture is in reality an error in anticipation. The effect judged wanting, by the very nature of the factors involved, seems to necessitate a longer period of time for realization. It follows that the evaluations of change in scholastic achievement for John, within the limitations of the research design, must be restricted to movement in the direction prognosticated. The evidence appears to point to progress here and a pronounced right-about-face that seems to augur for further realization in the coming school year.

Dick

In appearance, Dick epitomizes overeating, sedentary habits, and the absence of vigorous exercise. His posture suggests a vegetative-life-style--somewhat after the pattern of a cabbage. Ordinarily his facial expression contributes to this over-all impression. The casual observer, judging from his physique, would be likely to think him an older man, beginning to fall into a slump. A shock of curly hair, however, would, if given proper grooming, earn for him the envy of the feminine contingent. The foregoing externals symbolize Dick's most significant declaration, "I'm full of contradictions."

As the records read.--Although Dick's body development belies the fact, he wasn't sixteen until the middle of June. For all that he is tall and massive, his coloring and the appearance of his flesh suggest softness. His IQ rating on the Terman-McNemar Test of Mental Ability is 101 and his report-card marks for the previous semester are D, F, and F in the three content subjects he is carrying. Only three and a half days of absence are charged against his attendance record for the first half of the school year.

As others see him.--Dick does not show up favorably in the sociometric material for his homeroom. The boy who names him as his third choice is himself rejected by five other boys and a girl. On rejection scores Dick receives eight from boys and six from girls. These add up to an "acceptance" score of -29. The boys in his homeroom have a -.4 average. Dick's first choice was the boy who designated him as third choice. His other two elections were boys, one of whom had rejected the boy who is Dick's first choice and the other rejected Dick himself.

In the matter of group nominations for best and poorest student, Dick had eleven tallies as "poorest," seven as "second poorest," and five as "third poorest." According to the Spearman-Brown rank-difference formula, Dick's "acceptance" score and his "studiousness" score in respect to both his homeroom and the twenty-four underachievers taking part in this research give him a correlation of 1.00.

Dick impressed the writer as being indifferent to acceptance or rejection by his classmates. The fact that the boy he prefers expressed choices of boys who rank high in scholastic ability and another of Dick's elections is an honor student point at least to his probable appreciation of efforts at scholarship. Evidently, the roots

of the underachievement problem for Dick stem from other soil than the bid for peer recognition in the school environment.

Personality factors.--Dick's profile on the Cowan Adolescent Adjustment Analyzer is so even as to suggest deception. He is the second of the only two in the twenty-four participants whose scores all cluster around the 50 T-score. In no category does he fall below the 40 T limit or beyond the upper 60 T range. Nonetheless, the items of maladjustment he has checked provide a clue to the boy's life style. It seems to the writer that a strong feeling of inferiority underlies the following admissions:

> Thinks of good answers, but is afraid to tell them.
> Afraid of being talked about.
> Has been told he was stupid.
> Has been teased a lot.
> Won't talk to teacher.
> No definite plans for life.
> Often leaves work unfinished.
> Wishes he could start over in a new place.
> Feels like fighting when someone gets the best of him in a game.
> Reads for a long time in bed.
> Fun to make things sound bigger than they are.
> Sometimes feels like doing anything to get attention.

Dick's pattern of inferiority may be an outgrowth of factors in his home environment. The following statements seem to indicate that possibility:

> Thinks some relatives are pests.
> Afraid of being left behind on a pleasure trip.
> Mother still considers him a baby.
> Sometimes feels mean and like he hates everybody.
> Sometimes likes to hurt person or animal.

There is a suggestion of helplessness or inability to adjust to concepts too big for his limited experience in these declarations:

Worries about the world ending.
Worries when he can't believe what parents or minister say about religion.

The foregoing indications of maladjustment lead the writer to posit a strong need for security as basic to Dick's problem of underachievement. His appearance of physical maturity and passive attitude are a façade that bear out the "full of contradictions" label. In this study the rationale of group-guidance permits a pupil like Dick to work through to more satisfying self-percepts and to experience security in the acceptance of the counselor and in the presence of the participating underachievers. At this juncture it seems pertinent to point out that Dick's profile appears to have been a conscious or unconscious attempt to "cover up." This, in turn, suggests that his problem may be a deep-seated one.

Self-percepts on study habits versus teacher ratings.--Dick's percentiles on the SSHA Inventory show little variation: February, 35, and May, 32. A study of his score sheet reveals two items on the May test marked "frequently" for which the score card allows no tally, but which represent a movement in the approved direction. Regression in Dick's case is not unexpected. By May the imminence of failure in one or two subjects, the anxieties of a sense of inferiority, and the awarenesses of study deficiencies experienced in the group discussions would all seem to foster a devaluation. A positive program for learning may well germinate in such soil.

Teacher-rating scores for Dick give a sharper picture of change. Table 17, p. 78, indicates Dick's February score as 21; at the end of May it was 36. Although it is eight points below the mean for the group, the fifteen-point increase shows that Dick's teachers sensed progress in his study habits and attitudes. A

qualification attached to one tally reported pronounced improvement at first, but gradual diminution after the group meetings terminated. Two of Dick's teachers indicated that the change in him was such that they believed him a participant in the group-guidance experiences.

Projective material.--The hypothesis that in the drawing experience on the projective device inner conflicts related to the underachiever's learning problem would be expressed and worked through appeared to meet a real test in Dick. The preceding measures seemed to imply that his conflicts would be deeply submerged. Table 12, p. 65, indicates that the judges found a considerable range in the needs expressed in Dick's drawings. Although his tallies for the first pair of drawings are practically equivalent to the mean for the experimental group, this fact itself takes on significance when weighed against the profile on the Cowan Adolescent Adjustment Analyzer. The profile's prognosticated minimum of maladjustments lends emphasis to the hypothesis in view of the fact that Dick's final score on needs is 3.2 higher than that of the mean for the experimental group. The supposition was that the difference in needs expressed between the first pair of drawings and the last would measure the degree by which the terms of the hypothesis meet confirmation in the evaluations of the judges. The 34 tallies on the first two drawings exceed those for the last two by 4. Figures 5 and 6 represent the first two drawings; Figures 7 and 8, the last two. In them the judges found expression of three pairs of pronounced needs in the following order of prominence: autonomy and defendence, achievement and dominance, and understanding and cognizance. All six, the writer feels, give support to the previous inferences on Dick's personality pattern.

TABLE 20

SUMMARY OF NEEDS EXPRESSED IN DICK'S DRAWINGS

Needs	Judge A		Judge B		Judge C	
	Drawings 1, 2	Drawings 5, 6	Drawings 1, 2	Drawings 5, 6	Drawings 1, 2	Drawings 5, 6
Abasement	0	0	0	1	0	0
Achievement	1	2	1	2	1	2
Aggression	2	0	1	0	3	0
Autonomy	2	1	2	1	2	2
Defendence	1	2	1	2	2	2
Dominance	3	0	3	0	3	0
Succorance	0	0	0	0	1	0
Understanding	0	2	0	2	0	3
Cognizance	1	1	1	1	2	1
Exposition	0	1	0	1	1	1
Totals	10	9	9	10	15	11

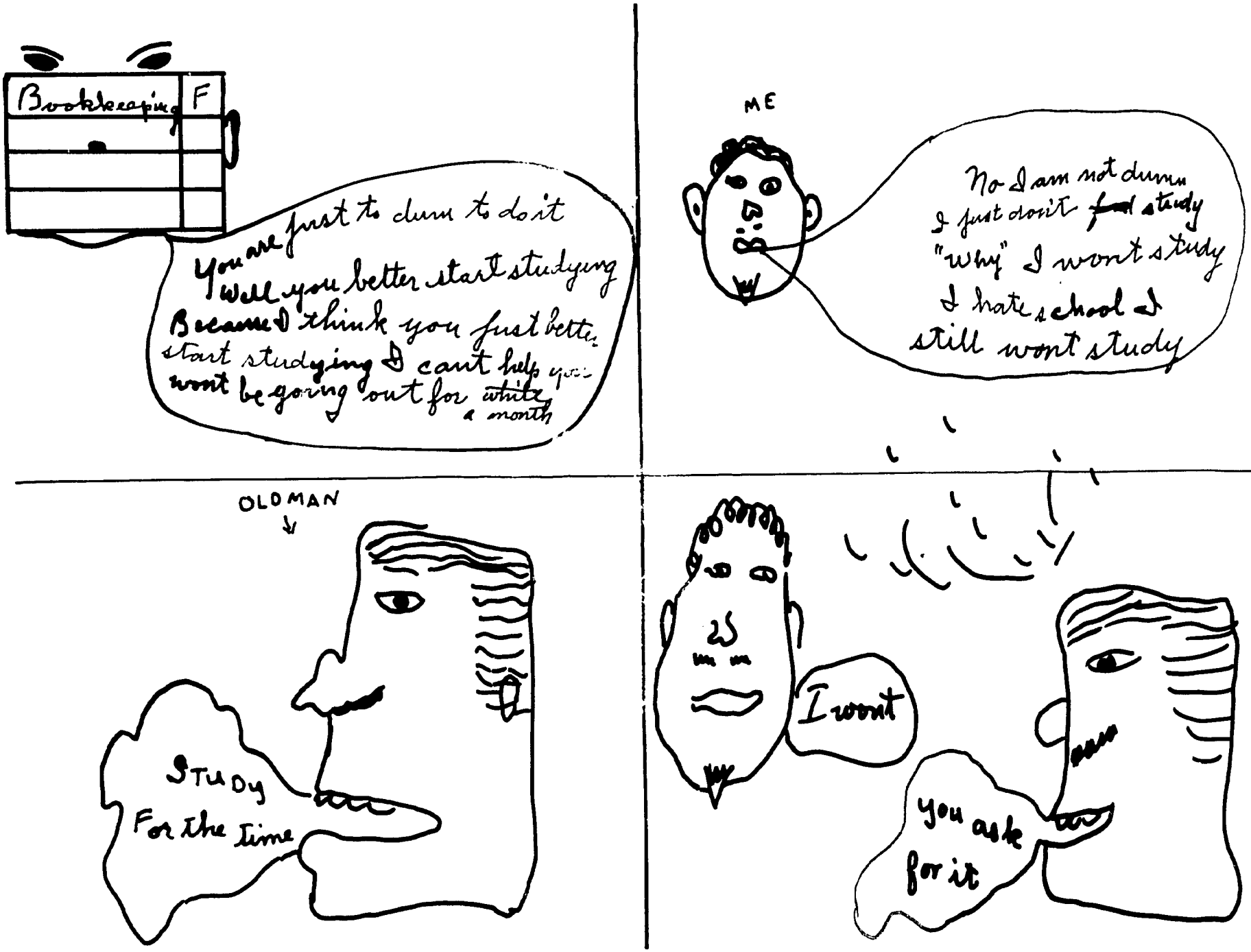

Figure 5. Dick's first projective drawing.

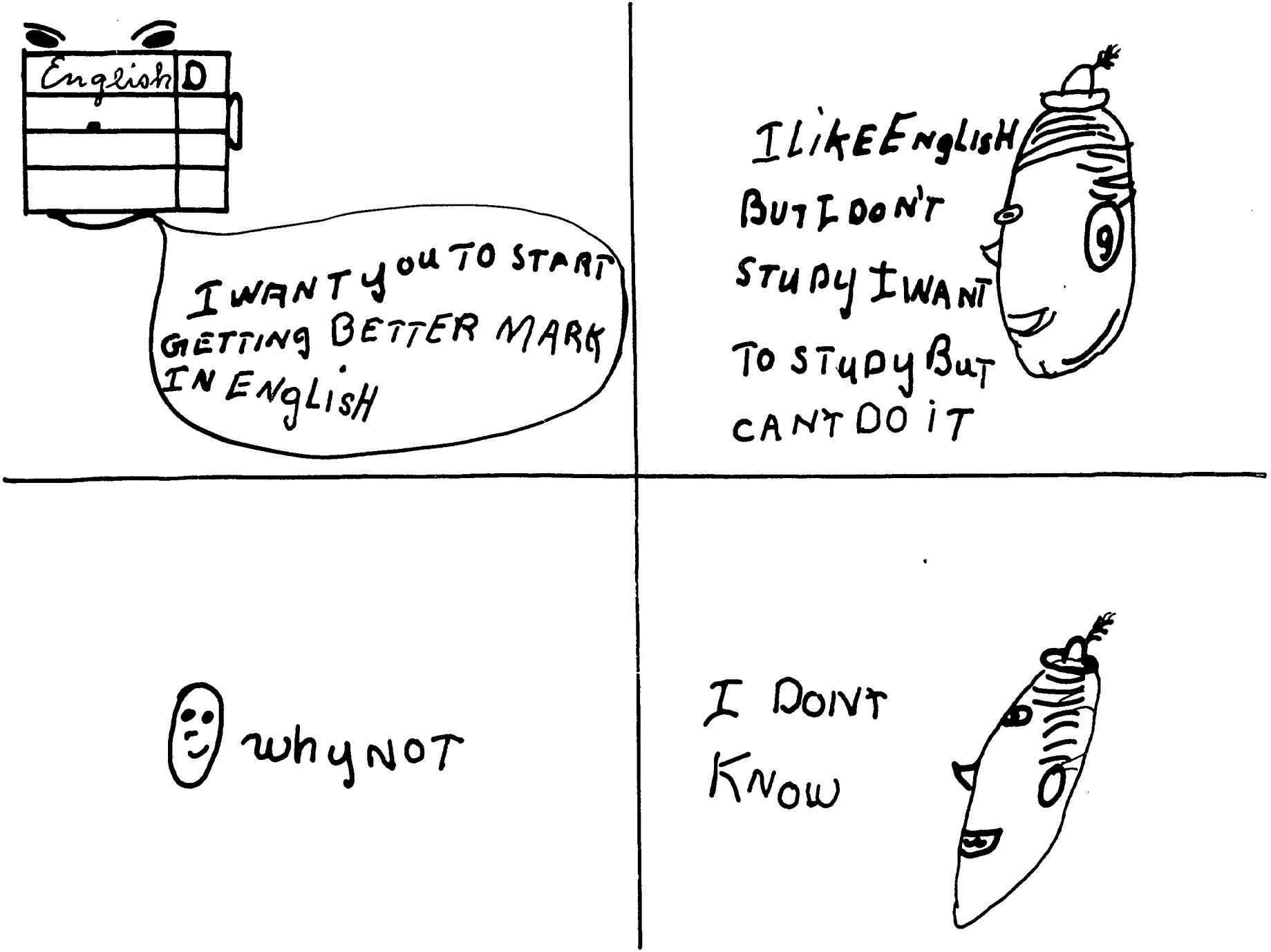

Figure 6. Dick's second projective drawing.

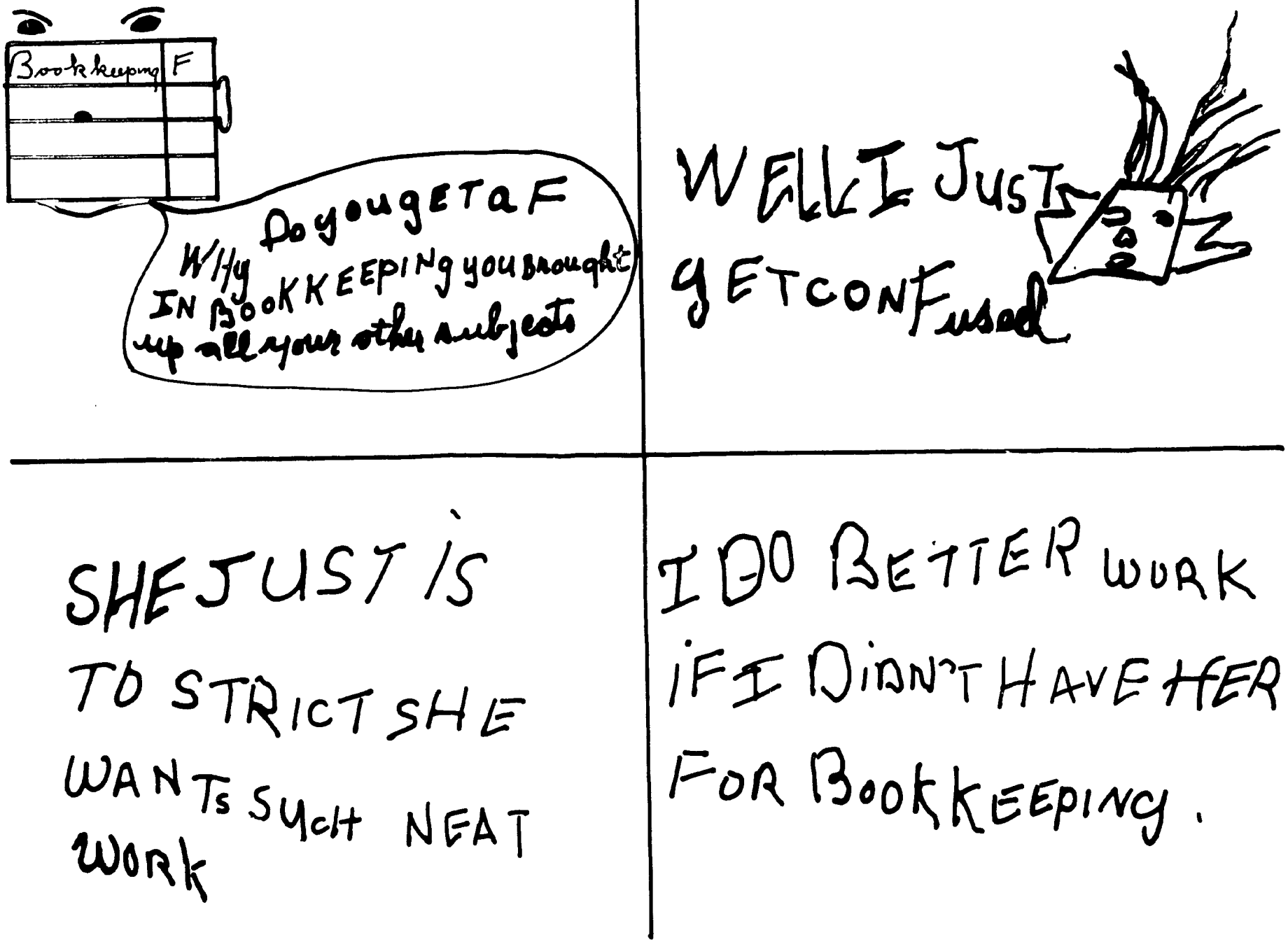

Figure 7. Dick's fifth projective drawing.

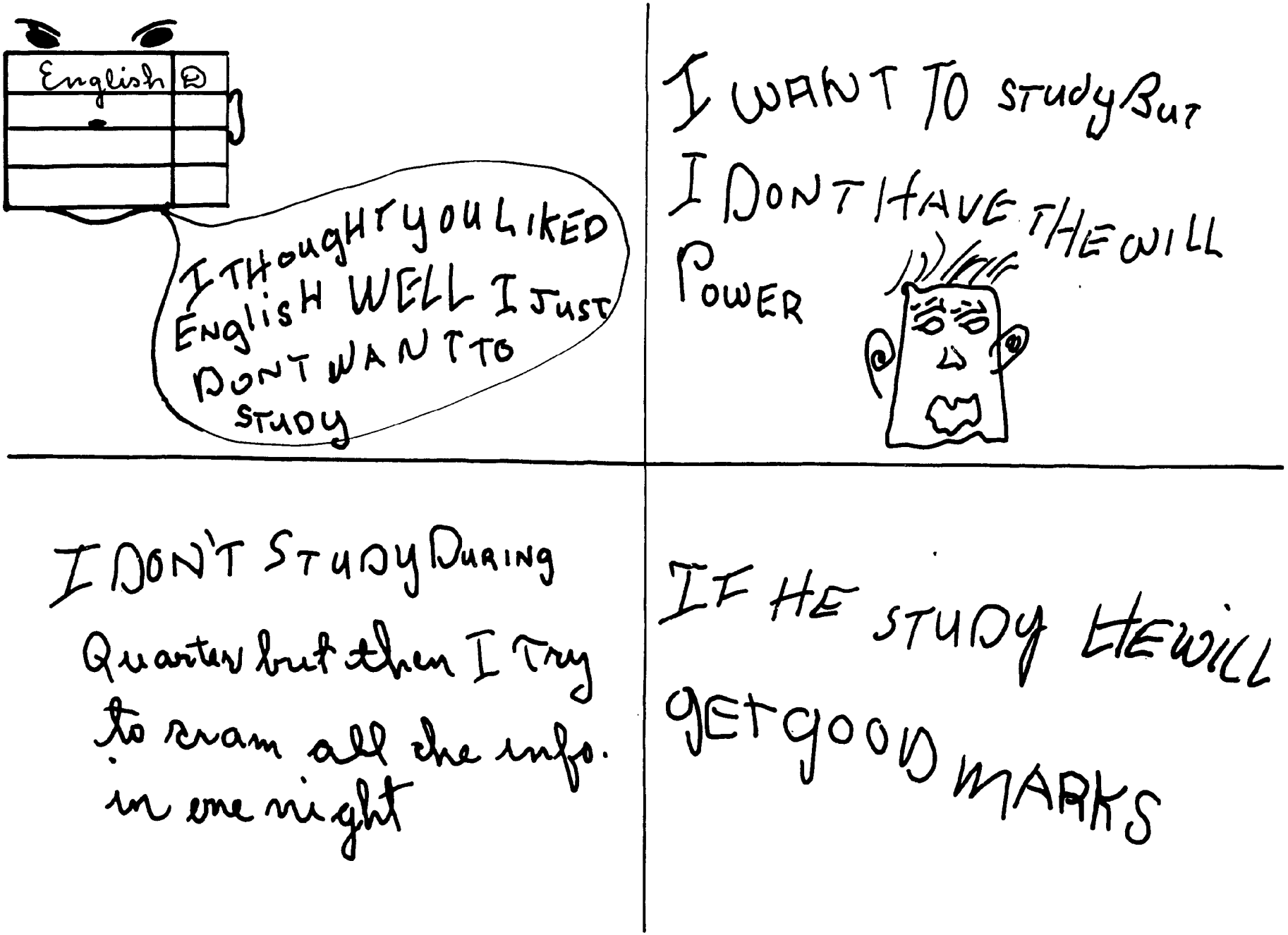

Figure 8. Dick's sixth projective drawing.

The judges found four evidences of awareness of conflict and/or insight in the early pair of drawings as against seven in the late pair (Table 13, p. 67). Significantly, impotence-frustration was the category in which the first four tallies were made. In the late drawings, the second and third categories were "resistance to pressure" and "disliked the teacher." Not only does the increase in the number of tallies for Dick's last two drawings sustain the first part of the hypothesis for this research, but the sharpened awareness of conflicts points to progress in adjustment.

While the research design does not call for any particularization in the environment from which the needs of these adolescents sprout, it seems interesting to note that Dick's first drawing related to the home forces while the others refer to the school influences. Although the latter are given rather extensive ventilation, the writer wonders if the conflicts in the home surroundings may not be deeper and more serious.

As Dick was leaving the fifth discussion meeting he stopped to make the following hurried comment, "There's a footnote on the back of my paper for today." It was out-of-character for Dick to make any such advance. So was the comment he had written in a cramped box in the lower corner of his paper. It read, "I have brought up all my subjects except for Bookkeeping." The unsolicited declaration seemed to indicate that Dick was making personal applications far ahead of any of the writer's expectations. It certainly gives evidence of the release of constructive forces of adjustment in Dick that had not been in operation previous to the projective drawing experience.

Discussion data.--The second discussion period found Dick quite comfortable and secure. The earlier meeting had given him

assurance that no one would see his drawings or get a report on the discussion content. His first contribution was a spontaneous affirmation of another boy's "That's impossible!" to the script directive on a mark that was "not good" for the "subject best liked." The counselor's "You have not had such an experience" elicited nothing further from Dick. Later he assumed the role of defender of standards and of the English course in particular. He was logical in the way he compared an "easy course like General Business" with one that "really takes brains like Latin" and he drew upon his personal experience to establish his point. When a classmate inveighed against English, Dick built up a good argument and delivered it well. The discussion had stimulated him and in his contributions he had become animated and convincing.

Dick assumed the role of consultant in the third discussion period in which there was considerable digression on people who say that they want to do good work and can't. His suggestion was that they first pay attention in class. Further, he recommended that they ask the teacher for help "where you don't understand." Near the end of the period Dick posed a question that seemed to be remote to the discussion. "Are we," he groped, "trying to prove that WE don't know what's wrong with OUR studying?" The writer felt that he was making an indirect application to himself and Sam's reply followed this thinking: "No, I think we're the kind of kids who could be doing good work, but aren't really doing it."

Dick came into the fourth discussion period with, "I like it warmer; it's cold." He shook his shoulders expressively and rubbed his hands together as he sat down. When there was an opening he gave the following personal reference to John's announcement of the geometry test, "I don't take geometry--I only take easy classes." The counselor's "You like to take it easy" provoked, "What do you

mean? I don't have an easy job.--Stock boy." He seemed ambivalent to the boys' follow-up. He appeared to enjoy the fact that he was being teased and at the same time he acted eager to defend himself. He finally made the distinction, "I take it easy in school."

The counselor's "I remember something you said last week about Michael taking an easy subject" brought forth laughs from Dick and from the other boys. At this point Dick declared, "I contradict myself. I'm full of contradictions." Near the end of the period he embellished this: "Everybody contradicts himself. People do it all the time."

Dick's drawing efforts at this meeting were prefaced with, "I can't do this! I never got a good mark in the subject I like best." Later as he was putting the finishing touches on his script he advised, "Remember, it isn't me."

Throughout this fourth session Dick seemed jovial and very much on the give-and-take. The writer felt that he was perceiving himself as an active member of this group of boys, rather than as someone just "sitting in." In behavior as well as in his comments Dick had certainly "come out of his shell" for the entire meeting. "Interest" as a factor in adolescent learning had been bandied about and the counselor's query as to what might be learned if some of the group were to attempt watching for related habits in themselves caused Dick to look up alertly. At the counselor's "Dick might watch for something that evoked his interest in a subject like _____" he supplied "Bookkeeping."

The writer's notes for the fifth meeting indicate that Dick monopolized much of the discussion. It was as if he picked up where the last meeting ended and plunged in with, "The thing that gets me down is Sister _____. She'll give me F in Bookkeeping and I can't make her see I'm trying to improve.--This is off the record.--

I've brought up my English and History marks but that Bookkeeping --! She NEVER SMILES!'' He flounced into his chair and waved his arms as he delivered his tirade.

The group took over at this point, but Dick broke in again, ''You have to be so neat!'' and once more, ''I make mistakes and then it's all wrong.'' It was obvious that this was Dick's day for ''blowing his top.'' On his way to the next class he advised the writer, ''There's a footnote on my paper.'' The cramped box he had drawn in which he wrote, ''I have brought up all my subjects except for Bookkeeping this quarter'' was the antithesis of the expansiveness with which he had ventilated his frustrations and resistances to the subject in question.

Dick seemed to have spent his strong feelings by the last session. His attention to the issue George raised about adolescent problems being primarily home problems was marked, but he made no comment. Among the general observations in the counselor's notes are Dick's reiteration on seeking teacher help and his nodded agreement to the observation that teen-agers seemed to have little interest in any learning that was more than ''average.''

When he had finished his last projective drawing, Dick sketched a rather grim picture of a ''Nazi Hideout.'' It included three stick soldiers taking a man to a gallows. On the reverse of this sheet he listed two items as worth-while aspects of the six meetings:

1. Learn how to study better.
2. I learned to like and respect nuns especially Sister _____ [the teacher of bookkeeping].

The group-guidance experience seemed to have created the climate for a metamorphosis in Dick. ''Lethargic'' describes the impression he gave when the writer administered the preliminary SSHA Inventory. To his teachers he was generally ''hopeless.'' The

security of the group atmosphere and the absence of any restraint in the counselor permitted for release of emotions tied up with the learning difficulties he projected in his drawings. By the fifth meeting Dick's behavior was uninhibited. An undercurrent of adjustment to learning problems seemed to be running parallel with his ventilation of feelings. His own evaluation of the group experience and the teacher rating scores testify to a change in habits and attitudes related to learning that are in the direction of adjustment.

"And so by indirection find direction out."--"Full of contradictions" characterized Dick in the individual interview at the close of the guidance contacts. Dick's entrance suggested hesitancy and in his introductory remarks he stammered noticeably. (At no time in the group discussions had the writer been aware of this handicap in him.) He examined the series of drawings he had made and commented on the personal experiences they represented. The counselor's "You say that you got something worth while from all this" elicited a ready, "That's right. I learned how to study better and I learned to like and respect nuns, especially _____." Then he blurted out that he couldn't figure out why the "other group" (control group) did nothing. He couldn't see what they were "good for." An analogy of a control and experimental group procedure satisfied him and seemed to put him at ease.

Dick's summarization of adolescent learning difficulties included:

> Most kids have poor study habits and they fool around too much.
> They have smarty attitudes toward the teachers.
> Too many classes bore them and they feel like following their urges.
> The group a fellow belongs to is more influential than the teacher.
> Kids aren't likely to go against group feeling.

As for himself, Dick believes his will power is too weak. "You have to WANT to LEARN." He felt that his learning problems began in the first grade--the first day he came to school. Something could be done before high school. Dick mentioned the fifth or sixth grade where "they are just getting out of the baby stage." He suggested the "teachers might put on some pressure, but NOT TOO MUCH. Don't be TOUGH. Kids resist pressure."

As far as Dick was concerned, school is necessary for his future. He isn't going to college and he is satisfied to get "average" marks. He always takes "easy subjects." It is "better that way than run a chance of not passing." He intends to go into the Army as soon as he is out of school. Maybe he "can get something easy in the Quartermasters."

The inertia that Dick seemed to symbolize previously had been displaced by an impression that he was following the lines of least resistance. Yet, the writer was conscious of a deliberate avoidance of any reference to his home or to any member of his family. In fact, Dick, more than any of the boys in the group, seems to be without ties to family or friends. This absence of moorings may be the basis of many of his contradictions.

Achievement data.--For Dick, especially, the hypothesis, in terms of scholastic achievement, calls for an extension of time. The foregoing data point to deep-seated inner conflicts that will need prolonged counseling. At the same time, his scholastic record tends to confirm the supposition that the projective device and group discussion enable the underachieving adolescent to express and work through inner conflicts to the extent that change eventuates in study habits and attitudes as well as in report-card marks. Dick's marks for the first semester, in the three content subjects he carried, were

D, F, and F. In May they had become D, F, and D. A direct effect of the experimental experience seems indicated by the fact that the subject in which he managed to avoid failure was bookkeeping. As noted previously, the time following the research experience was too limited to produce any statistically reliable change in achievement for the experimental group. In view of this, the improvement in Dick's mark in bookkeeping seems significant. It is the writer's opinion that the notation on the teacher rating scale to the effect that Dick's progress began to diminish by the end of May hints at remaining conflicts.

In summary.--The data on Dick spell confirmation as far as expressing and working through inner conflicts related to learning problems are concerned. The prognostications of the hypothesis may, therefore, be said to be verified within the limitations of this area of the research design. At the same time, the data seem to indicate a story of deeper disturbance for Dick that requires a sequel of long-term counseling.

The suppositions-change in study habits and attitudes related to learning appear to be sustained by the teacher evaluations, but not in the self-evaluation of the SSHA Inventory. Contrariwise, Dick declared that he had brought up his marks in all his subjects except bookkeeping, while his final report card carried a D for English and bookkeeping but failure in history. It seems to the writer that Dick's verbalization in Figure 8 of the projective drawings anent "I don't study during the quarter but then I try to cram all the information in one night" shows that he is moving in the direction of adjustment. Although his minimum movement in the direction of greater achievement may be said to support the hypothesis, the final word on Dick is a strong recommendation for further counseling.

CHAPTER V

SUMMARY AND CONCLUSIONS

This study grew out of the conviction that guidance is the focal point for activating the principle that "there is need for a greater faith in the child's ability to work out his own problems--challenging his own decision and responsibility for consequences."[1] The writer envisioned the underachieving adolescent's initiating an attack upon his learning problem in a group-guidance situation that utilized the original projective tool she designed.

The hypothesis reads: In the group-guidance situation, the adolescent boy underachiever will in the course of creating a series of projective drawings and verbalizations (1) express and work through inner conflicts of which he may be otherwise unaware and with which he may have been unable to deal, and (2) experience changes in learning and attitudes toward learning that will be reflected in his scholastic achievement.

The research design called for:

1. An experimental group of twelve underachieving boys from grades nine, ten, and eleven and a control group, matched with them as closely as possible.

2. A preliminary and final test, Survey of Study Habits and Attitudes. Teacher ratings of study habits and attitudes, made before the experimental experience and again at the close of the semester.

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[1] Plant, op. cit., p. 269.

3. Grade-point averages in content subjects for each student from the report-card marks of the previous semester and for the current semester.

4. Six group-guidance meetings with the experimental group from which the writer obtained:

a. A series of projective drawings from each boy. Three judges analyzed them; first, for expressions of needs and second, for awareness of conflict and/or insight.

b. A counselor's log of individual behavior and discussion for each meeting, beginning with the second, from which the writer quantified expressions of frustration and conflict as well as indications of percepts of individual problems and insight.

5. An individual interview with each member of the experimental group, the summaries of which yielded a list of eighteen factors basic to the underachievement problems of the twelve boys.

6. A 5 per cent level of confidence for tests of significance in differences in the measures.

Three questions were implicit in the hypothesis:

1. Does the projective device uncover individual needs and do the discussions provide for further ventilation of individual tensions and resistances?

2. Do the projective device and discussions provide for working through inner conflicts in the individual subjects?

3. Does the research experience produce change in study habits and attitudes and in achievement in the members of the experimental group?

The analysis of the data from the variables warrants the following answers:

Q. 1. The conclusion on whether the projective device and discussions provided for the expression of inner conflicts rests

upon a significant difference between the needs expressed in the first and last pairs of projective drawings. The .87 correlation between the judges' rating was deemed sufficiently reliable. The mean difference of 6.4 in their ratings yielded a t-score of 2.67. This was significant beyond the 5 per cent level of confidence. The hypothesis, therefore, may be said to be sustained in respect to the expression of inner conflicts in the course of creating the projective scripts and discussing them.

According to the tallies made by the writer in her analysis of the discussion content, needs and perceptions of inner conflicts were expressed in all the group-guidance sessions. These scores, however, were arrived at subjectively so there is the possibility of contamination in accepting them as support for the hypothesis.

Q. 2. An evaluation of the projective drawings for awareness of conflict and/or insight in each of the twelve boys provides the scores on which a judgment was made on this question. The mean difference of 2.8 is significant at the 1 per cent level of confidence. It appears, therefore, that the device followed by discussion did provide these boys the opportunity for working through inner conflicts.

From the individual interviews, the writer's tallies point to six factors related to learning problems that two-thirds of the boys were aware of. Although these tallies were arrived at subjectively, they lend support to the hypothesis.

Q. 3. The question was asked: Does the research experience produce change in study habits and attitudes and in achievement in the members of the experimental group? Three measures contribute data for the answer. First, the difference between the experimental and control groups on their differences in the SSHA percentiles of early and late tests yielded a t-score of 3.01, significant

at the 1 per cent level of confidence. Second, the difference between the differences in teacher ratings was not significant at the 5 per cent level of confidence. Third, the difference between the differences in achievement revealed a t-score of 1.014 and was not significant at the 5 per cent level of confidence.

The rationale for the research design leans heavily upon an individualized approach to underachievement. Earlier studies examined by the writer often concluded with the unique character of underachievement in the adolescent. Following that line of thinking, the writer suggested two probabilities beyond statistical verification when she presented the problem. The following observations, the writer believes, have psychological significance.

1. The individual interview items for Lewis and Dick seem to intimate a deep-seated problem in learning as far as they are concerned. The research design was not expected to meet such needs as theirs. The writer stipulated that for the underachiever with indications of a deep-seated problem prolonged counseling was advisable. Such is the recommendation for Lewis and Dick.

2. Subhypothesis 5 stated that the underachiever who perceived himself unrealistically in respect to study habits and attitudes would with a lower final SSHA score give evidence of change in a positive direction. Jerry and David, the writer believes, are examples of this paradox.

The present study lays no claim to the final word on underachievement in adolescent boys. In this small-scale Operations Remedial the writer sees evidence for a frontal attack on the problem with a projective technique used in a series of group-guidance meetings. The terms of the hypothesis in respect to maladjustment syndromes central to learning difficulties are clearly supportable. Trends and probabilities in individual cases point to further

verification. While achievement-change at the termination of the study had no statistical significance, the writer does believe that the statistically significant change in study habits and attitudes augurs for a long-range improvement. Finally, the two case studies reveal dramatic possibilities in the experimental experience for individualized resolution of underachievement.

Suggestions for Further Research

In the course of this study the writer has uncovered factors related to underachievement in adolescents that seem to warrant further research. She suggests more studies using the group-guidance approach to confirm the principles enunciated herein. In addition she offers the following proposals for consideration:

1. A comparative study on grade lines to determine the level at which the subjects are most responsive to the group-guidance approach.

2. A longitudinal study on the elementary level aimed at utilizing principles of psychodynamics and group dynamics to forestall the learning problems of adolescence.

APPENDIXES

APPENDIX A

PROJECTIVE CRITERIA AND RESEARCH FORM SHEETS

Needs and definitions from Murray's Explorations in Personality: Need is a hypothetical entity, each of which has a typical directional or qualitative aspect. Strictly speaking, it is the immediate outcome of certain internal and external occurrences. There may be no awareness of what is needed. It may be simply the experience of a vague "lack" or "pressure" giving rise to unrest, uneasiness, dissatisfaction. If images of the need object or needed activity appear in consciousness, one commonly speaks of "desire" or "wish," an experience which may occur without motor involvement; secondary or psychogenic needs stand for common reaction systems and wishes.

"Need integrate" or "complex" is an internal constellation which establishes a channel through which a need is realized. Individuals may be portrayed as organizations of such complexes. Manifest or overt need (objectified) includes all action that is "real" (seriously and responsibly directed towards actual objects) whether or not it is preceded by a serious intention or wish. Latent need includes semiobjectified needs (overt activity playfully and imaginatively, without responsibility, directed towards imagined objects) and subjectified needs (all need activity finding no overt expression).

Check List of Needs

*1. Abasement:	To surrender. To comply and accept punishment. To apologize, confess, atone. Self-depreciation. Masochism.
*2. Achievement:	To overcome obstacles, to exercise power, to strive to do something difficult, as well and as quickly as possible.
3. Affiliation:	To form friendships and associations. To greet, join, and live with others. To co-operate and converse sociably with others. To love. To join groups.
*4. Aggression:	To assault or injure an object. To murder, to belittle, harm, blame, accuse maliciously, or ridicule a person. To punish severely.
*5. Autonomy:	To resist influence or coercion. To defy an authority or seek freedom in a new place. To strive for independence.
6. Counteraction:	Proudly to overcome defeat by restriving and retaliating. To select the hardest tasks. To defend one's honor in action.
*7. Deference:	To admire and willingly follow a superior allied objective. To co-operate with a leader. To serve gladly.
*8. Defendence:	To defend oneself against blame and belittlement. To justify one's actions, to offer extenuations, explanations, and excuses. To resist probing.
*9. Dominance:	To influence or control others. To persuade, prohibit, dictate. To lead and direct. To restrain. To organize the behavior of a group.

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*These needs were the fifteen used on the check list for the preliminary run.

10. Exhibition: To attract attention to one's person. To excite, amuse, stir, shock, thrill others. Self-dramatization.

*11. Harmavoidance: To avoid harm, to withdraw, flee, or conceal oneself from injuring agents.

12. Infavoidance: To avoid failure, shame, humiliation, ridicule. To refrain from attempting to do something that is beyond one's powers. To conceal a disfigurement.

13. Nurturance: To nourish, aid, or protect a helpless object. To express sympathy. To "mother" a child.

14. Order: To arrange, organize, put away objects. To be tidy and clean. To be scrupulously precise.

15. Play: To relax, amuse oneself, seek diversion and entertainment. To "have fun," to play games. To laugh, joke, and be merry. To avoid serious tension.

16. Rejection: To snub, ignore, or exclude an O. To remain aloof and indifferent. To be discriminating.

17. Sentience: To seek and enjoy sensuous impressions, particularly from objects in contact with the body (taste sensations and tactile sensations).

18. Sex: To form and further erotic relationships. To have sexual intercourse.

*19. Succorance: To seek aid, protection, or sympathy. To cry for help. To plead for mercy. To adhere to an affectionate parent. To be dependent.

*20. Understanding: To intellectualize. To analyze experience, to abstract, to discriminate among concepts. To

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*Idem.

define relations, to synthesize relations and ideas and arrive at generalizations that are comprehensive and verifiable.

21. Acquisition: To gain possessions and property. To grasp, snatch, or steal things. To bargain or gamble. To work for money or goods.

22. Blamavoidance: To avoid blame, ostracism, or punishment by inhibiting asocial or unconventional impulses. To be well-behaved and obey the law.

23. Cognizance: To explore. To ask questions. To satisfy curiosity. To look, listen, inspect. To read and seek knowledge.

24. Construction: To organize and build.

25. Exposition: To point and demonstrate. To relate facts. To give information, explain, interpret, lecture.

*26. Recognition: To excite praise and commendation. To demand respect. To boast and exhibit one's accomplishments. To seek distinction, social prestige, honors, or high office.

27. Retention: To retain possession of things. To refuse to give or lend. To hoard. To be frugal, economical, and miserly.

*28. Repressed abasement

*29. Repressed aggression

30. Repressed cognizance

*31. Repressed dominance

32. Repressed exhibitionism

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*Idem.

33. Repressed sex

34. Repressed homosexuality

*35. Repressed succorance

AWARENESS OF CONFLICT AND/OR INSIGHT

I. Received poor grades

II. Didn't like subject

III. Disliked teacher

IV. Resistance to pressure

V. Lesser values paramount

VI. Impotence-Frustration

VII. Other

---

*Idem.

INDIVIDUAL SCORE SHEET FOR PROJECTIVE DRAWINGS[a]

Student

Need	Drawing 1	Drawing 2	Total	Drawing 5	Drawing 6	Total
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						
33						
34						
35						
AWARENESS OF CONFLICT AND/OR INSIGHT						
I						
II						
III						
IV						
V						
VI						
VII						

[a]The score sheets were ruled to facilitate use.

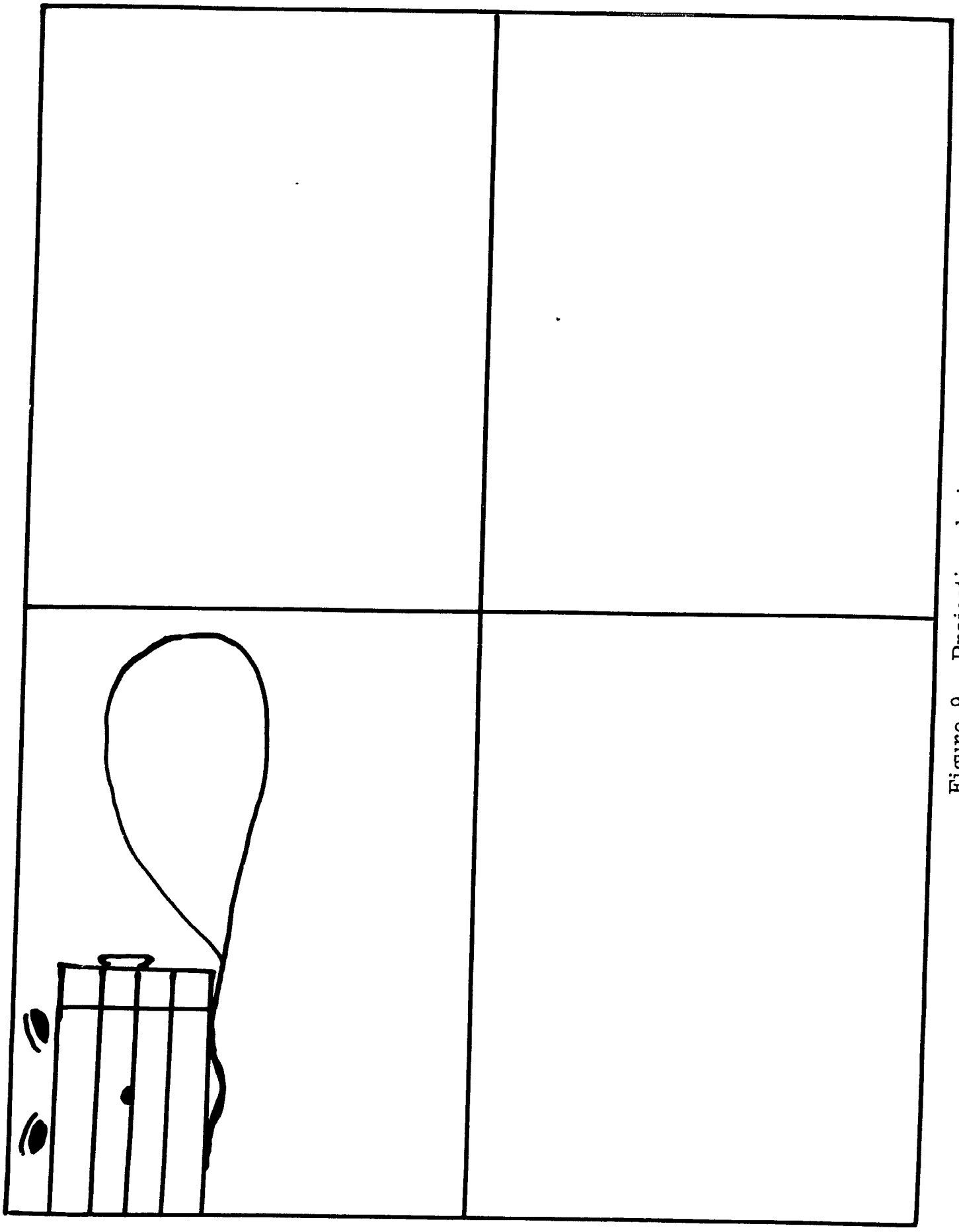


Figure 9. Projective device.

TEACHER RATINGS ON STUDY HABITS AND ATTITUDES

1. Offers dislike of teacher or class as explanation for poor work and failure.
2. Gives up or skips hurriedly through longer assignments.
3. Has difficulty in applying rules of grammar, definitions, and formulas.
4. Is satisfied with doing work that is just passing.
5. Asks for further explanation when assignments are not clear.
6. Makes up back work without prompting from the teacher.
7. Does everything but STUDY as long as possible.
8. Is orderly and organized in study procedures.
9. Hands in assignments on time.
10. Prefers studying by himself rather than with others.
11. Written work is superficially and haphazardly done.
12. Loses interest after first few days or weeks of a new term.
13. Puts off living up to resolutions to improve.
14. Can't see sacrificing a good time to STUDY.
15. Daydreams, draws, or reads other material during class time.

INDIVIDUAL SCORE CARD

Student

	R	S	F	G	A[a]
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					

[a] R = Rarely (0 per cent to 15 per cent);
S = Sometimes (16 per cent to 35 per cent);
F = Frequently (36 per cent to 65 per cent);
G = Generally (66 per cent to 85 per cent);
A = Almost always (86 per cent to 100 per cent).

APPENDIX B

PROJECTIVE DRAWINGS EVALUATION TABLES

TABLE 21

TOTAL NEEDS EXPRESSION IN PROJECTIVE DRAWINGS FOR PARTICIPANTS IN PRELIMINARY RUN

Student	Judge A		Judge B		Judge C	
	Drawings 1, 2	Drawings 5, 6	Drawings 1, 2	Drawings 5, 6	Drawings 1, 2	Drawings 5, 6
Douglas	11	18	13	15	13	18
Gary	6	12	6	12	6	16
Herman	5	9	4	8	7	11
Jack	14	15	13	15	13	22
James	13	16	9	18	11	17
Philip	17	12	16	12	9	15
Ronnie	8	14	8	14	9	19
Russell	21	12	20	14	19	23
Tom	5	8	8	10	7	10
Tony	7	12	8	10	7	21

TABLE 22

NEEDS EXPRESSED IN BILL'S PROJECTIVE DRAWINGS

Needs	Judge A		Judge B		Judge C	
	Drawings 1, 2	Drawings 5, 6	Drawings 1, 2	Drawings 5, 6	Drawings 1, 2	Drawings 5, 6
Abasement	0	0	0	0	0	0
Achievement	0	1	0	1	1	1
Affiliation	0	0	0	0	0	0
Aggression	3	1	3	1	3	0
Autonomy	0	0	1	0	1	0
Blamavoidance	0	0	0	0	0	0
Deference	0	0	0	0	0	0
Defendence	0	1	0	1	0	0
Dominance	1	3	1	3	1	2
Exhibition	0	0	0	0	2	0
Harmavoidance	1	0	1	0	1	0
Infavoidance	0	0	0	0	0	0
Nurturance	0	0	0	0	0	0
Sex	0	0	0	0	0	0
Succorance	0	0	0	0	0	1
Understanding	0	0	0	0	0	0
Cognizance	0	2	0	1	2	2
Exposition	0	0	0	0	0	2
Recognition	0	0	0	0	0	0
Totals	5	8	6	7	11	8

Awareness of Conflict and/or Insight Revealed

Received poor grades						
Didn't like subject						
Disliked teacher						
Resistance to pressure						
Lesser values paramount						
Impotence-frustration		1		1		1

TABLE 23

NEEDS EXPRESSED IN CARL'S PROJECTIVE DRAWINGS

Needs	Judge A		Judge B		Judge C	
	Drawings 1, 2	Drawings 5, 6	Drawings 1, 2	Drawings 5, 6	Drawings 1, 2	Drawings 5, 6
Abasement	0	0	0	0	0	0
Achievement	0	2	0	1	0	1
Affiliation	0	0	0	0	0	0
Aggression	0	0	0	0	0	0
Autonomy	0	1	0	1	1	0
Blamavoidance	0	0	0	0	0	0
Deference	0	1	0	0	0	0
Defendence	2	0	2	0	3	0
Dominance	1	0	1	0	1	0
Exhibition	0	0	0	0	0	0
Harmavoidance	0	0	0	0	0	0
Infavoidance	2	0	0	0	0	0
Nurturance	0	0	0	0	0	0
Sex	0	0	0	0	0	0
Succorance	0	0	0	0	0	0
Understanding	0	0	0	0	1	1
Cognizance	1	0	1	0	1	0
Exposition	0	1	0	1	1	2
Recognition	0	0	0	0	0	0
Totals	6	5	4	3	8	4
Awareness of Conflict and/or Insight Revealed						
Received poor grades						
Didn't like subject	1	1	1	1	1	1
Disliked teacher						
Resistance to pressure						
Lesser values paramount						
Impotence-frustration	1	1	1	1	1	1

TABLE 24

NEEDS EXPRESSED IN DAVID'S PROJECTIVE DRAWINGS

Needs	Judge A		Judge B		Judge C	
	Drawings 1, 2	Drawings 5, 6	Drawings 1, 2	Drawings 5, 6	Drawings 1, 2	Drawings 5, 6
Abasement	3	0	1	0	3	0
Achievement	4	2	3	2	4	2
Affiliation	0	0	0	0	0	0
Aggression	0	0	0	0	1	1
Autonomy	0	0	0	0	0	0
Blamavoidance	0	0	0	0	0	0
Deference	1	0	1	0	0	0
Defendence	0	0	0	0	1	0
Dominance	1	0	1	1	1	1
Exhibition	1	0	1	0	1	0
Harmavoidance	0	0	0	0	0	0
Infavoidance	0	0	0	0	1	0
Nurturance	0	0	0	0	0	0
Sex	0	0	0	0	0	0
Succorance	0	0	0	0	0	0
Understanding	2	3	2	3	2	3
Cognizance	1	3	1	3	1	3
Exposition	1	0	0	0	1	0
Recognition	0	0	1	0	0	0
Totals	14	8	11	9	16	10

Awareness of Conflict and/or Insight Revealed

Received poor grades						
Didn't like subject		1		1		1
Disliked teacher						
Resistance to pressure						
Lesser values paramount						
Impotence-frustration				1		
No category		1		(Study inadequate)		1

TABLE 25

NEEDS EXPRESSED IN DICK'S PROJECTIVE DRAWINGS

Needs	Judge A		Judge B		Judge C	
	Drawings 1, 2	Drawings 5, 6	Drawings 1, 2	Drawings 5, 6	Drawings 1, 2	Drawings 5, 6
Abasement	0	0	0	1	0	0
Achievement	1	2	1	2	1	2
Affiliation	0	0	0	0	0	0
Aggression	2	0	1	0	3	0
Autonomy	2	1	2	1	2	2
Blamavoidance	0	0	0	0	0	0
Deference	0	0	0	0	0	0
Defendence	1	2	1	2	2	2
Dominance	3	0	3	0	3	0
Exhibition	0	0	0	0	0	0
Harmavoidance	0	0	0	0	0	0
Infavoidance	0	0	0	0	0	0
Nurturance	0	0	0	0	0	0
Sex	0	0	0	0	0	0
Succorance	0	0	0	0	1	0
Understanding	0	2	0	2	0	3
Cognizance	1	1	1	1	2	1
Exposition	0	1	0	1	1	1
Recognition	0	0	0	0	0	0
Totals	10	9	9	10	15	11

Awareness of Conflict and/or Insight Revealed

Received poor grades						
Didn't like subject						
Disliked teacher		1				1
Resistance to pressure					1	
Lesser values paramount						
Impotence-frustration	1	2	1	2	1	1

TABLE 26

NEEDS EXPRESSED IN GEORGE'S PROJECTIVE DRAWINGS

Needs	Judge A		Judge B		Judge C	
	Drawings 1, 2	Drawings 5, 6	Drawings 1, 2	Drawings 5, 6	Drawings 1, 2	Drawings 5, 6
Abasement	0	0	1	0	3	0
Achievement	4	0	3	0	3	1
Affiliation	0	0	0	0	0	0
Aggression	0	0	0	0	0	0
Autonomy	0	0	0	0	0	0
Blamavoidance	0	1	0	1	0	0
Deference	2	0	2	0	2	0
Defendence	0	0	0	0	1	2
Dominance	1	0	1	1	1	0
Exhibition	0	0	0	0	0	0
Harmavoidance	0	0	0	0	0	0
Infavoidance	0	0	0	0	1	0
Nurturance	0	0	0	0	0	0
Sex	0	1	0	1	0	2
Succorance	0	0	0	0	1	0
Understanding	1	0	1	0	0	0
Cognizance	3	4	3	4	4	4
Exposition	1	1	0	2	2	1
Recognition	0	0	0	0	0	0
Retention	0	0	0	1	0	0
Totals	12	7	11	10	18	10

Awareness of Conflict and/or Insight Revealed

Received poor grades						
Didn't like subject						
Disliked teacher						
Resistance to pressure						
Lesser values paramount	1	1	1	1	1	1
Impotence-frustration						

TABLE 27

NEEDS EXPRESSED IN JERRY'S PROJECTIVE DRAWINGS

Needs	Judge A		Judge B		Judge C	
	Drawings 1, 2	Drawings 5, 6	Drawings 1, 2	Drawings 5, 6	Drawings 1, 2	Drawings 5, 6
Abasement	0	0	0	0	0	0
Achievement	1	1	0	1	1	1
Affiliation	0	0	0	0	0	0
Aggression	0	1	0	1	0	1
Autonomy	0	1	0	1	0	1
Blamavoidance	0	0	0	0	0	0
Deference	0	0	0	0	0	0
Defendence	1	2	0	2	2	0
Dominance	0	0	0	0	0	1
Exhibition	2	1	1	0	2	1
Harmavoidance	0	0	0	0	0	0
Infavoidance	0	0	0	0	0	0
Nurturance	0	0	0	1	2	1
Sex	0	0	0	0	0	0
Succorance	0	0	0	0	0	0
Understanding	0	0	0	0	0	0
Cognizance	1	0	1	0	1	0
Exposition	0	1	0	1	0	1
Recognition	0	0	0	0	0	1
Totals	5	7	2	7	8	8

Awareness of Conflict and/or Insight Revealed

Received poor grades						
Didn't like subject						
Disliked teacher						
Resistance to pressure						
Lesser values paramount						
Impotence-frustration					1	1

TABLE 28

NEEDS EXPRESSED IN JOHN'S PROJECTIVE DRAWINGS

Needs	Judge A		Judge B		Judge C	
	Drawings 1, 2	Drawings 5, 6	Drawings 1, 2	Drawings 5, 6	Drawings 1, 2	Drawings 5, 6
Abasement	0	0	0	0	0	0
Achievement	0	0	0	0	0	0
Affiliation	0	0	0	0	0	0
Aggression	0	0	0	0	0	0
Autonomy	0	0	0	0	0	0
Blamavoidance	0	0	0	0	0	0
Deference	0	0	0	0	0	0
Defendence	0	1	0	1	1	2
Dominance	0	1	0	1	0	1
Exhibition	0	0	0	0	0	0
Harmavoidance	0	0	0	0	0	0
Infavoidance	0	0	0	0	0	0
Nurturance	0	0	0	0	0	0
Sex	0	0	0	0	0	0
Succorance	0	0	0	0	0	0
Understanding	1	0	1	1	1	1
Cognizance	4	4	4	4	4	4
Exposition	4	2	3	2	4	2
Recognition	0	0	0	0	0	0
Totals	9	8	8	9	10	10

Awareness of Conflict and/or Insight Revealed

Received poor grades						
Didn't like subject		1		1		1
Disliked teacher						1
Resistance to pressure						
Lesser values paramount						
Impotence-frustration						

TABLE 29

NEEDS EXPRESSED IN LEWIS' PROJECTIVE DRAWINGS

Needs	Judge A		Judge B		Judge C	
	Drawings 1, 2	Drawings 5, 6	Drawings 1, 2	Drawings 5, 6	Drawings 1, 2	Drawings 5, 6
Abasement	0	1	0	1	0	2
Achievement	1	2	1	2	3	1
Affiliation	0	0	0	0	0	0
Aggression	0	1	0	1	0	0
Autonomy	0	1	0	0	0	0
Blamavoidance	0	0	0	0	0	0
Deference	0	0	0	0	0	0
Defendence	3	2	3	1	3	2
Dominance	3	2	2	1	2	3
Exhibition	0	0	0	0	0	0
Harmavoidance	1	0	1	0	1	0
Infavoidance	0	0	1	0	1	0
Nurturance	3	1	3	1	2	0
Sex	0	0	0	0	0	0
Succorance	0	0	0	0	1	0
Understanding	0	0	0	0	1	0
Cognizance	0	2	2	2	0	2
Exposition	0	0	1	0	2	0
Recognition	0	0	0	0	0	0
Totals	11	12	14	9	16	10

Awareness of Conflict and/or Insight Revealed

Received poor grades						
Didn't like subject						
Disliked teacher						
Resistance to pressure			1		1	
Lesser values paramount						
Impotence-frustration						

TABLE 30

NEEDS EXPRESSED IN MICHAEL'S PROJECTIVE DRAWINGS

Needs	Judge A		Judge B		Judge C	
	Drawings 1, 2	Drawings 5, 6	Drawings 1, 2	Drawings 5, 6	Drawings 1, 2	Drawings 5, 6
Abasement	0	0	0	0	0	0
Achievement	2	0	2	0	2	1
Affiliation	0	0	0	0	1	0
Aggression	0	2	0	3	0	4
Autonomy	1	0	1	0	2	0
Blamavoidance	0	0	0	0	0	0
Deference	0	0	0	0	0	0
Defendence	0	0	0	0	0	0
Dominance	1	0	1	0	1	0
Exhibition	1	0	1	0	0	0
Harmavoidance	0	0	0	0	0	0
Infavoidance	0	0	0	0	0	0
Nurturance	1	0	0	0	1	0
Sex	0	0	0	0	0	0
Succorance	0	1	0	0	1	1
Understanding	0	0	0	0	0	0
Cognizance	1	0	1	0	1	0
Exposition	1	0	1	0	2	0
Recognition	0	0	0	0	0	0
Totals	8	3	7	3	11	6
Awareness of Conflict and/or Insight Revealed						
Received poor grades		1				
Didn't like subject	2	1	2	1	1	1
Disliked teacher		3		3		1
Resistance to pressure						
Lesser values paramount						
Impotence-frustration						

TABLE 31

NEEDS EXPRESSED IN NEIL'S PROJECTIVE DRAWINGS

Needs	Judge A		Judge B		Judge C	
	Drawings 1, 2	Drawings 5, 6	Drawings 1, 2	Drawings 5, 6	Drawings 1, 2	Drawings 5, 6
Abasement	0	1	0	1	0	1
Achievement	2	3	2	2	1	1
Affiliation	0	0	0	0	0	0
Aggression	1	0	1	0	2	0
Autonomy	0	0	0	0	0	0
Blamavoidance	0	0	0	0	0	0
Deference	0	0	1	0	0	0
Defendence	2	0	2	0	1	0
Dominance	1	0	1	0	1	1
Exhibition	0	0	0	0	0	0
Harmavoidance	0	0	0	0	0	0
Infavoidance	0	0	0	0	0	0
Nurturance	0	0	0	0	0	0
Sex	0	0	0	0	0	0
Succorance	0	0	0	0	1	0
Understanding	0	1	0	2	0	3
Cognizance	2	4	2	4	3	1
Exposition	1	2	1	2	2	3
Recognition	0	0	0	1	0	0
Totals	9	11	10	12	11	10

Awareness of Conflict and/or Insight Revealed

Received poor grades				1		
Didn't like subject		2				2
Disliked teacher						
Resistance to pressure						
Lesser values paramount						
Impotence-frustration (Personal problem)		1			(Self-adj.)	1

TABLE 32

NEEDS EXPRESSED IN SAM'S PROJECTIVE DRAWINGS

Needs	Judge A		Judge B		Judge C	
	Drawings 1, 2	Drawings 5, 6	Drawings 1, 2	Drawings 5, 6	Drawings 1, 2	Drawings 5, 6
Abasement	0	1	0	1	0	1
Achievement	5	2	5	2	4	2
Affiliation	0	0	0	0	0	0
Aggression	0	0	0	0	3	0
Autonomy	2	1	1	1	2	1
Blamavoidance	0	0	0	0	0	0
Deference	2	1	2	1	2	1
Defendence	1	0	1	0	2	1
Dominance	5	3	6	3	7	3
Exhibition	0	0	0	0	0	0
Harmavoidance	0	1	0	1	0	1
Infavoidance	0	0	0	0	0	0
Nurturance	3	0	2	0	2	1
Sex	0	0	0	0	0	0
Succorance	0	0	0	0	0	0
Understanding	0	2	0	2	0	3
Cognizance	2	3	2	2	2	2
Exposition	0	0	0	0	1	0
Recognition	0	0	0	0	0	0
Totals	20	14	19	13	25	16

Awareness of Conflict and/or Insight Revealed

Received poor grades					1	
Didn't like subject		2		2		1
Disliked teacher						
Resistance to pressure						
Lesser values paramount						
Impotence-frustration						

TABLE 33

NEEDS EXPRESSED IN TOM'S PROJECTIVE DRAWINGS

Needs	Judge A		Judge B		Judge C	
	Drawings 1, 2	Drawings 5, 6	Drawings 1, 2	Drawings 5, 6	Drawings 1, 2	Drawings 5, 6
Abasement	0	0	0	0	0	0
Achievement	1	0	1	0	1	0
Affiliation	0	0	0	0	0	0
Aggression	1	2	1	1	3	1
Autonomy	0	0	0	0	0	1
Blamavoidance	0	0	0	0	0	0
Deference	0	1	0	1	0	1
Defendence	3	0	3	0	3	0
Dominance	4	3	5	2	4	2
Exhibition	0	0	0	0	0	0
Harmavoidance	0	0	0	0	0	0
Infavoidance	0	0	0	0	0	0
Nurturance	0	0	0	0	0	0
Sex	0	0	0	0	0	0
Succorance	0	0	0	0	0	0
Understanding	0	0	0	0	0	0
Cognizance	2	4	2	4	1	5
Exposition	1	2	1	2	2	2
Recognition	0	0	0	0	0	0
Totals	12	12	13	10	14	12

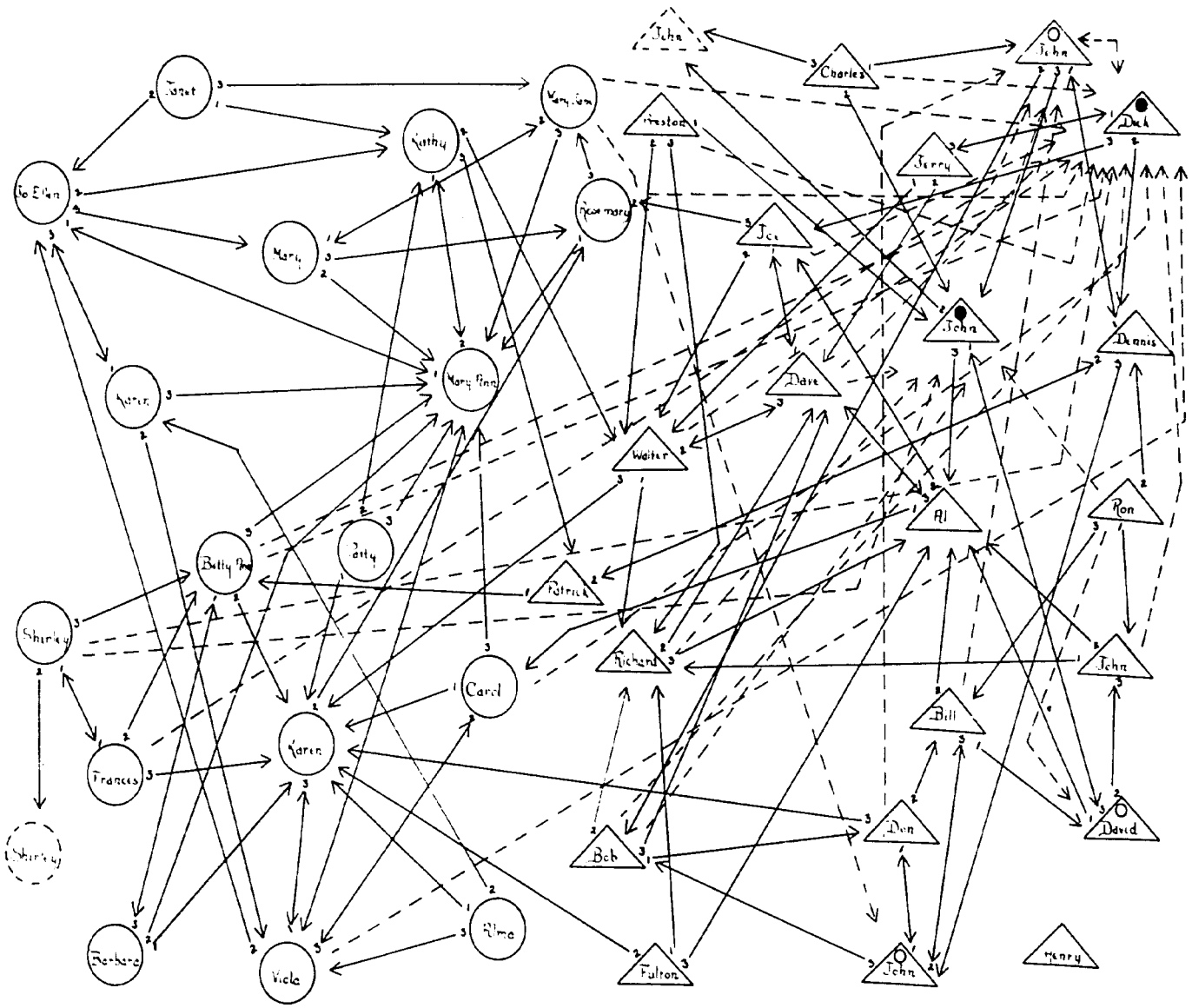
Awareness of Conflict and/or Insight Revealed

Received poor grades			
Didn't like subject	1	1	1
Disliked teacher			
Resistance to pressure			
Lesser values paramount			
Impotence-frustration			

TABLE 34

CORRELATION BETWEEN JUDGES' RATINGS OF PROJECTIVE DRAWINGS BASED ON TWELVE CASES OF RESEARCH PROPER

Judges	Drawings 1 and 2 (r)	Drawings 5 and 6 (r)
A and B	.930	.938
A and C	.834	.816
B and C	.823	.817
Mean z	1.34	1.33
Corresponding r	.87	.87



APPENDIX C

SOCIOGRAM FOR TENTH-GRADE HOMEROOM

Legend:

Boy : Broken line: absent : O Control group ; ——→: Choice direction

Girl : Broken line: absent : ● Experimental ; - - - - - -→: Rejection

1,2,3: order

APPENDIX D

DISCUSSION CONTENT EVALUATION TABLES

TABLE 35

NEGATIVE FACTORS IN DISCUSSION CONTENT OF SECOND MEETING

Item	Bill	Carl	David	George	Jerry	John	Lewis	Michael	Neil	Dick	Sam	Tom	Totals
Overt expressions of conflict													
Asks data be confidential													
Points out impersonal data													
No inhibitions											×	×	2
Plays with objects													
Moves about room restlessly						×					×		2
Annoys neighbor													
Acting out role													
Withdrawn				×[a]					×				2
Frustration factors													
Teachers:													
Demands too much													
Mark too hard									×				1
Too strict													
"Negative halo" complex								×					1
Autocratic													
Never smile													
Subjects:													
Usefulness questioned							×	×					2
Resists "musts"							×						1
"Get by" only aim						×		×				×	3
Eliminate marks													

[a]Judged evident in discussion content.

TABLE 36

POSITIVE FACTORS IN DISCUSSION CONTENT OF SECOND MEETING

Item	Bill	Carl	David	George	Jerry	John	Lewis	Michael	Neil	Dick	Sam	Tom	Totals
Individual perceptions													
Studying:													
Good student popularity . . .													
Attention in class													
Ask teacher help													
Homework necessary													
Overlearning pays													
Organize for study													
Environment:													
Example powerful							×						1
Interpupil help good													
Home problems adjustment .													
Insight													
Individual applications	×		×		×		×			×		×	6
Self-evaluation inaccuracy . . .									×				1
Emotional blocking													
Approve high standards		×					×	×					3
Meet adult needs													

TABLE 37

NEGATIVE FACTORS IN DISCUSSION CONTENT OF THIRD MEETING

Item	Bill[a]	Carl[a]	David	George	Jerry[a]	John	Lewis	Michael	Neil[a]	Dick	Sam	Tom	Totals
Overt expressions of conflict													
Asks data be confidential											×		1
Points out impersonal data													
No inhibitions													
Plays with objects							×						1
Moves about room restlessly				×									1
Annoys neighbor													
Acting out role													
Withdrawn							×						1
Frustration factors													
Teachers:													
Demand too much													
Mark too hard													
Too strict													
"Negative halo" complex													
Autocratic													
Never smile													
Subjects:													
Usefulness questioned													
Resists "musts"													
"Get by" only aim													
Eliminate marks											×		1

[a]Eleventh-grade boys absent.

TABLE 38

POSITIVE FACTORS IN DISCUSSION CONTENT OF THIRD MEETING

Item	Bill[a]	Carl[a]	David	George	Jerry[a]	John	Lewis	Michael	Neil[a]	Dick	Sam	Tom	Totals
Individual perceptions													
Studying:													
Good student popularity . . .			×			×							2
Attention in class										×			1
Ask teacher help													
Homework necessary								×					1
Overlearning pays													
Organize for study													
Environment:													
Example powerful													
Interpupil help good													
Home problems adjustment .													
Insight													
Individual applications			×								×		2
Self-evaluation inaccuracy . . .													
Emotional blocking													
Approve high standards													
Meet adult needs						×							1

[a]Four eleventh-grade boys absent.

TABLE 39

NEGATIVE FACTORS IN DISCUSSION CONTENT OF FOURTH MEETING

Item	Bill	Carl	David	George	Jerry	John	Lewis	Michael	Neil	Dick	Sam	Tom	Totals
Overt expressions of conflict													
Asks data be confidential													
Points out impersonal data													
No inhibitions													
Plays with objects													
Moves about room restlessly													
Annoys neighbor						×							1
Acting out role										×	×		2
Withdrawn													
Frustration factors													
Teachers:													
Demand too much				×									1
Mark too hard													
Too strict													
"Negative halo" complex													
Autocratic													
Never smile										×			1
Subjects:													
Usefulness questioned													
Resists "musts"													
"Get by" only aim						×				×			2
Eliminate marks													

TABLE 40

POSITIVE FACTORS IN DISCUSSION CONTENT OF FOURTH MEETING

Item	Bill	Carl	David	George	Jerry	John	Lewis	Michael	Neil	Dick	Sam	Tom	Totals
Individual perceptions													
Studying:													
Good student popularity . . .													
Attention in class													
Ask teacher help													
Homework necessary													
Overlearning pays								×					1
Organize for study	×												1
Environment:													
Example powerful			×										1
Interpupil help good												×	1
Home problems adjustment .													
Insight													
Individual applications			×		×	×				×			4
Self-evaluation inaccuracy . . .	×					×				×			3
Emotional blocking					×							×	2
Approve high standards	×												1
Meet adult needs			×										1

TABLE 41

NEGATIVE FACTORS IN DISCUSSION CONTENT OF FIFTH MEETING

Item	Bill	Carl	David	George	Jerry	John	Lewis	Michael	Neil	Dick	Sam	Tom	Totals
Overt expressions of conflict													
Asks data be confidential										×			1
Points out impersonal data													
No inhibitions													
Plays with objects			×									×	2
Moves about room restlessly													
Annoys neighbor						×							1
Acting out role										×	×		2
Withdrawn				×									1
Frustration factors													
Teachers:													
Demand too much										×			1
Mark too hard													
Too strict							×						1
"Negative halo" complex													
Autocratic							×			×			2
Never smile										×			1
Subjects:													
Usefulness questioned													
Resists "musts"													
"Get by" only aim												×	1
Eliminate marks													

TABLE 42

POSITIVE FACTORS IN DISCUSSION CONTENT OF FIFTH MEETING

Item	Bill	Carl	David	George	Jerry	John	Lewis	Michael	Neil	Dick	Sam	Tom	Totals
Individual perceptions													
Studying:													
Good student popularity . . .													
Attention in class													
Ask teacher help													
Homework necessary							×						1
Overlearning pays													
Organize for study													
Environment:													
Example powerful													
Interpupil help good													
Home problems adjustment .													
Insight													
Individual applications										×			1
Self-evaluation inaccuracy . . .													
Emotional blocking	×					×							2
Approve high standards		×											1
Meet adult needs													

TABLE 43

NEGATIVE FACTORS IN DISCUSSION CONTENT OF SIXTH MEETING

	Bill	Carl	David	George	Jerry	John	Lewis	Michael	Neil	Dick	Sam	Tom	Totals
Overt expressions of conflict													
Asks data be confidential													
Points out impersonal data													
No inhibitions													
Plays with objects							×						1
Moves about room restlessly													
Annoys neighbor												×	1
Acting out role													
Withdrawn													
Frustration factors													
Teachers:													
Demand too much													
Mark too hard													
Too strict		×											1
"Negative halo" complex													
Autocratic													
Never smile													
Subjects:													
Usefulness questioned		×		×									2
Resists "musts"													
"Get by" only aim	×				×	×		×					4
Eliminate marks													

TABLE 44

POSITIVE FACTORS IN DISCUSSION CONTENT OF SIXTH MEETING

Item	Bill	Carl	David	George	Jerry	John	Lewis	Michael	Neil	Dick	Sam	Tom	Totals
Individual perceptions													
Studying:													
Good student popularity . . .													
Attention in class													
Ask teacher help										×			1
Homework necessary								×					1
Overlearning pays													
Organize for study													
Environment:													
Example powerful													
Interpupil help good	×	×											2
Home problems adjustment .				×									1
Insight													
Individual applications		×											1
Self-evaluation inaccuracy . . .						×							1
Emotional blocking													
Approve high standards													
Meet adult needs					×								1

APPENDIX E

STATISTICAL FORMULAS

Formula for coefficient of correlation of ungrouped data:

$$r = \frac{N\Sigma(XY) - (\Sigma X)(\Sigma Y)}{\sqrt{[N\Sigma(X^2) - (\Sigma X)^2][N\Sigma(Y^2) - (\Sigma Y)^2}}$$

Fisher $\underline{t}$ formula for difference in means for two independent groups:

$$\underline{t} = \frac{M_1 - M_2}{\sqrt{\left[\frac{\Sigma(X_1 - M_1)^2 + \Sigma(X_2 - M_2)^2}{N_1 + N_2 - 2}\right]\left[\frac{1}{N_1} + \frac{1}{N_2}\right]}}$$

Fisher $\underline{t}$ formula of means for paired data:

$$\underline{t} = \frac{M_D}{\sqrt{\frac{\Sigma(D - M_D)^2}{(N - 1)(N)}}}$$

Spearman rank-difference (rho) correlation:

$$\rho = 1 - \frac{6D^2}{N(N^2 - 1)}$$

(D^2 = sum of squared difference between ranks.)

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