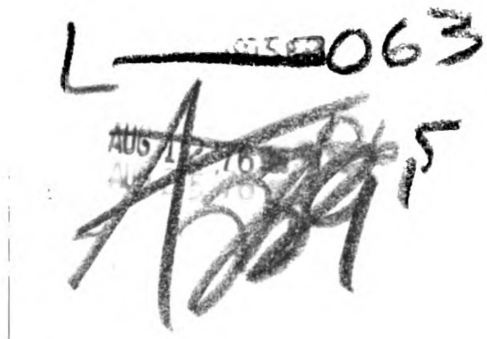

ABSTRACT

A STUDY OF SELECTED PERSONALITY CHARACTERISTICS AND TENURE OF SELECTED 4-H CLUB MEMBERS WHO HAVE COMPLETED THEIR FIRST YEAR OF 4-H CLUB WORK

by La Dessa Rogers Smelcer

Certain personality characteristics of enrolled and drop-out 4-H children were investigated in order to ascertain what personality differences may exist between the two groups.

The subjects were twelve matched pairs of eleven-year-old children who had completed one year of 4-H Club work. The control group of children had remained in the 4-H program, and the experimental group had dropped out of 4-H after the completion of the first year. Each pair was matched according to these criteria: (1) both were of the same sex, (2) both were member of the same 4-H Club, (3) both had intelligence quotients within $\pm$ five points, and (4) both were living with natural parents. The ratio of boys to girls in the study was the same as the ratio of boys to girls in the group of first year 4-H drop-outs in the Northern Idaho Extension District during 1962-1963. This ratio was 1:2, or four pairs of boys to eight pairs of girls.

Each of the twenty-four children was individually administered the Michigan Picture Test, a projective personality technique, in his school setting. The tests were scored by the experimenter.

The results of each test was evaluated for three personality variables. A score was assigned each variable, and the scores were individually and collectively analyzed.

The results did not show a significant difference between the control and the experimental group on the three personality variables: tension index, verb tense, and direction of forces. However, a mean difference at the .05 level was found between the experimental girls and the control girls on the tension variable. The control girls, or those who had stayed in 4-H, were found to have higher scores on this variable which indicated that they expressed greater amounts of tension needs.

As the mean difference on the tension score for boys was not significant, the data appears to lend support to the effect of sex differences in subjects' responses to the test; however, the results may have been strongly influenced by the smallness of the sample.

The correlation of the tension index scores of the experimental girls to the control girls was significant at the .01 level, thereby indicating that the groups varied in the same manner. However, the correlation between these groups for total words on pictures 1, 6, 9, and 12, although not statistically significant, showed a trend that the control girls were more verbal than the experimental girls in the discussion of the pictures used to score the tension index variable.

Findings of the study suggest a need to explore the possibility that the 4-H Club program may appeal to a girl who scores higher on a tension index than one who does not. Another area to consider would be whether there may be a difference between personality needs of boys and girls in the 4-H program.

This study lends support to 4-H research concerning a flexible program to meet individual needs of children. A closer look at 4-H program planning should be continued to determine what types of programs may meet the many needs and personalities of all groups of children.

A STUDY OF SELECTED PERSONALITY CHARACTERISTICS AND TENURE OF SELECTED 4-H CLUB MEMBERS WHO HAVE COMPLETED THEIR FIRST YEAR OF 4-H CLUB WORK

By

La Dessa Rogers Smelcer

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CHAPTER I

INTRODUCTION

Non-re-enrollment of first year 4-H Club members has long been a concern of 4-H Club agents, leaders, and parents. For over thirty years studies have been conducted to ascertain the reasons why former 4-H Club members fail to re-enroll.

A large majority of these studies used as their operational definition the reasons stated by the leader, child, or parent for the drop-out. Some of the reasons commonly found in the studies involved such factors as: peer group influence, unavailability of a 4-H Club, and relocation of the child in a new community.

Few of the studies have attempted to assess, in addition, personality characteristics that might be involved in discontinued membership. A report[1] based on the results of a regional 4-H Club study[2] arrived at the conclusion that such basic needs as attention, prestige, and a continuing

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[1]Laurel K. Sabrosky, Meeting the Basic Needs of First-Year 4-H Club Members, Federal Extension Service PA 203, United States Department of Agriculture (Washington, D. C.: Government Printing Office, revised, 1966).

[2]Western Region 4-H Study Committee, Tables of Data From Western Region 4-H Club Study of First Year Members: 1949, Federal Extension Service Circular 378, United States Department of Agriculture (Washington, D. C.: Government Printing Office, 1950).

sense of personal security may not have been realized by the first year member who failed to re-enroll.

A later longitudinal study[3] showed that one-third of the children who dropped out of 4-H listed club weakness as the determining factor. This same study discovered that drop-out children rated the projects as the best liked feature of 4-H Club work; while, in comparison, children who continued in 4-H Club work listed the opportunity to learn as their first choice.

Many studies have been completed that evaluate subjects' answers to questionnaires. The time seems appropriate that "many 4-H workers are now ready to dig deeper into the effectiveness of 4-H Club work, or of certain activities or projects."[4]

The purpose of this study was to ascertain the nature of some underlying personality characteristics of enrolled and drop-out 4-H children. Knowledge of these characteristics may help evaluate the present 4-H Club program. Continued effort to clarify personality variables which may be related to non-re-enrollment in 4-H Club work should be of assistance to the individual 4-H child, parents, and 4-H Club leaders.

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[3]Burton W. Kreitlow, Lowell Pierce, and Curtis Middleton, Who Joins 4-H Clubs?, University of Wisconsin Research Bulletin 215 (Madison, Wisconsin: Agricultural Experiment Station, October, 1959).

[4]Laurel K. Sabrosky, "Present Status of 4-H Club Studies," Paper read at the National State 4-H Club Leaders' Meeting, Federal Extension Service, United States Department of Agriculture (Washington, D. C.: Government Printing Office, April, 1961), p. 1.

CHAPTER II

REVIEW OF LITERATURE

Research literature on 4-H Club enrollment, re-enrollment, and drop-outs has been available for over thirty years. A great majority of these studies, however, were concerned with specific factors which were related to both enrollment and re-enrollment. The factors were most often those which the child, leader, or extension agent mentioned to the person doing research. Quite often the relating of factors was by means of a questionnaire which was mailed or by an interview schedule. There was a wide variety of methods used in the studies. Some had control groups; others did not. Studies were made on all 4-H members; others on boys or girls or first year members or whatever sub-group of the 4-H Club was available. In this brief review, only information which seems pertinent to the present study will be cited.

Factors Relating to Enrollment and Re-enrollment

Numerous studies have been made using enrollment as a variable. They range from the Western Region 4-H Study[5]

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[5]Western Region 4-H Study Committee, op. cit.

to individual theses involving a few counties in one state.[6] A careful review of the available literature shows that there is a common list of factors which seem to influence member enrollment and drop-out. The studies of: Sabrosky,[7] Western Region 4-H Study Committee,[8] Copp and Clark,[9] Campbell,[10] Crile,[11] Cummings,[12] New England 4-H Study

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[6]Audrey Sandstead, "Factors Affecting 4-H Club Enrollment in Colorado" (unpublished Master's thesis, Colorado Agricultural and Mechanical College, Fort Collins, Colorado, 1952).

[7]Laurel K. Sabrosky, "4-H Club Study Findings Point the Way," Extension Service Review, XXI (March, 1950), pp. 48-49.

[8]Western Region 4-H Study Committee, op. cit.

[9]James H. Copp and Robert C. Clark, Factors Associated with Re-enrollment in 4-H Clubs, University of Wisconsin Research Bulletin 195 (Madison, Wisconsin: Agricultural Experiment Station, February, 1956).

[10]Frank Nelson Campbell, "Factors Associated with Re-enrollment in 4-H Clubs in Rock County, Wisconsin" (unpublished Master's thesis, University of Wisconsin, Madison, Wisconsin, 1955).

[11]Lucinda Crile, The Relationship of Age and Other Factors to Enrollment and Continuation in 4-H Club Work, Federal Extension Service Circular 183, United States Department of Agriculture (Washington, D. C.: Government Printing Office, 1933).

[12]Alberta H. Cummings, "An Investigation of 4-H Club Work in Cabell County, West Virginia" (unpublished Master's thesis, Ohio University, Athens, Ohio, 1939), cited by Barnard Joy and Lucinda Crile, 4-H Clubs and Older Youth Studies, Federal Extension Service Circular 339, United States Department of Agriculture (Washington, D. C.: Government Printing Office, 1940), p. 33.

Committee,[13] Sandstead,[14] Joy,[15] and Howes,[16] found that:

1. initial enrollment at an early age was associated with re-enrollment. When the member joined at the first eligible age, he stayed in 4-H for a longer period of time.

2. sex was not a factor associated with re-enrollment or drop-out. Both boys and girls were in equal proportions in these groups.

3. the personal relationships between the member and the leader seemed to have an influence on the re-enrollment and drop-out.

4. the degree to which the members actively participated in the club had an effect on the re-enrollment. The more a member participated, the greater the chance that he would re-enroll.

5. various factors in a child's background such as: level of living, residence and occupation of father, permanency of residence, and parental social participation, all seem to have an influence. As Copp and Clark found, ". . . the kinds of specific factors involved seem to be in terms of the 'life chances' and social aspirations provided by the family background for successful performance of 4-H tasks."[17]

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[13]New England 4-H Study Committee, 4-H Club Work and High School Youth, A New England Cooperative Extension Publication (Amherst: University of Massachusetts, 1947).

[14]Sandstead, op. cit.

[15]Barnard D. Joy, The Length of 4-H Club Membership, Federal Extension Service Circular 199, United States Department of Agriculture (Washington, D. C.: Government Printing Office, 1934).

[16]M. L. Howes, "Some Factors Involved in the Non-re-enrollment of First Year 4-H Club Boys in Baltimore, Marford, Howard, and Montgomery Counties, Maryland" (unpublished Master's thesis, University of Maryland, College Park, Maryland, 1952), cited in Review of Extension Studies, Federal Extension Service, United States Department of Agriculture (Washington, D.C.: Government Printing Office, 1953), p. 27.

[17]Copp and Clark, op. cit., p. 15.

6. the degree to which the parents were involved and participated in 4-H activities was linked to enrollment and drop-outs. The children who had parents actively involved had a higher re-enrollment rate.

7. whether or not the child had a brother or sister or close friend in 4-H seemed to be associated with enrollment and drop-out. The peer group's lack of interest or drop-out often influenced the member to do the same.

8. some of the failure for a member to re-enroll was the result of the member leaving the community.

9. club failures accounted for some of the members who did not re-enroll.

Copp and Clark[18] compared boys and girls who re-enrolled with those who did not re-enroll in selected counties in Wisconsin. In addition to some of the above factors, they reported that:

1. it was not possible to distinguish between the two groups using the child's perceptions and evaluations of his projects and club experiences.

2. membership in other organizations was not associated with re-enrollment.

3. there was a very low degree of association between an interest in farm homemaking or agriculture as a career and the decision to drop-out or re-enroll.

4. the most important factors found in the study, in combination, accounted for only forty-two per cent of the variance in re-enrollment. It seemed there was no single cause which could be primarily responsible for the failure of a child to re-enroll.

The chart on the following page represents the extent to which Copp and Clark felt drop-outs could be prevented with more adequate knowledge and planning.[19]

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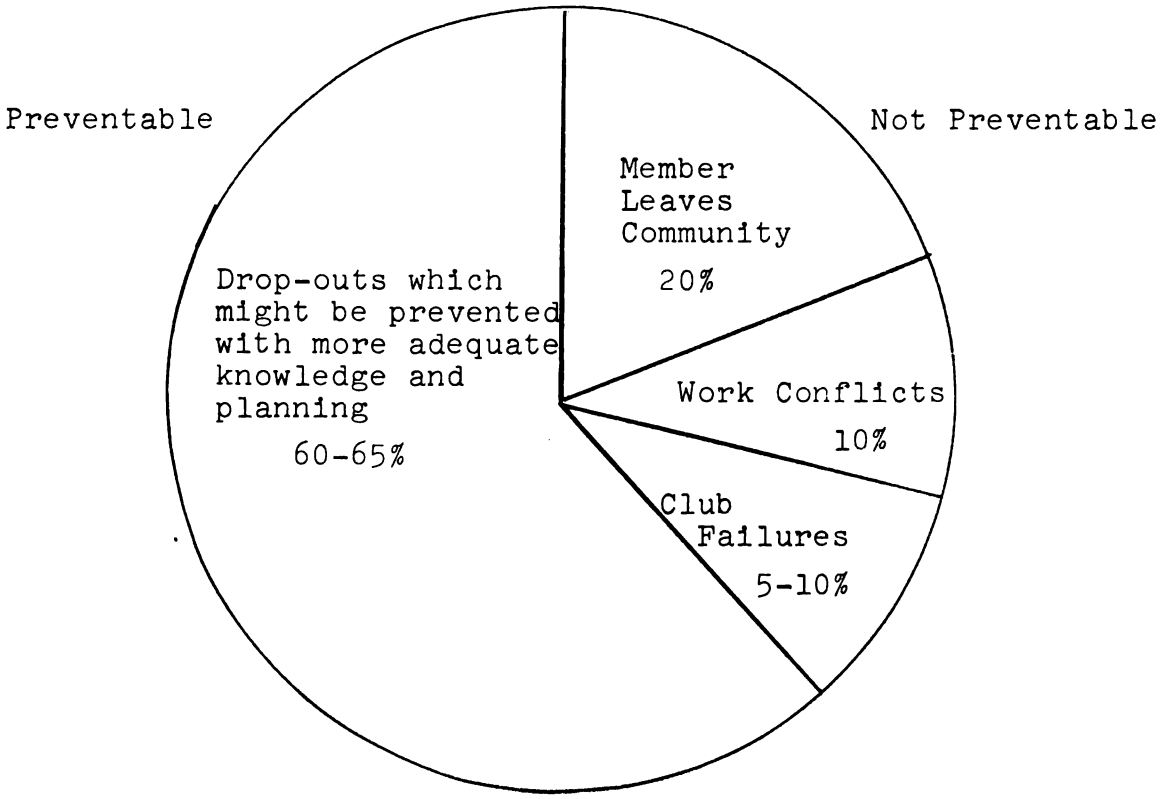
[18] Copp and Clark, op. cit.

[19] Ibid., p. 2.



Estimated proportion of all drop-outs due to various types of conditions.

A study by Lindstrom and Dawson,[20] concerning circumstances influencing membership in 4-H Clubs, used 4-H members, non-members and past members. After conducting a questionnaire study, they concluded that:

1. boys from larger farms were more apt to join in greater numbers than boys from smaller farms.

2. boys and, to a lesser extent, girls who were actively participating in other groups were found in greater numbers in 4-H than those who were not as active in other groups.

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[20]D. E. Lindstrom and W. M. Dawson, Selectivity of 4-H Club Work: An Analysis of Factors Influencing Membership, University of Illinois Research Bulletin 426 (Urbana, Illinois: Agricultural Experiment Station, July, 1936).

3. girls who were more ascendant than the average seemed to be in girls' 4-H Clubs; however, ascendant boys did not seem to be present in boys' 4-H Clubs to any greater extent than submissive ones.

4. in the subjects of this study, it was found that there was no indication that the grade of intelligence or I.Q. was a selective factor in 4-H Club work.

Comparisons of 4-H Members and Non-members

Crile[21] did a study combining items from county agent annual reports and a summary of field studies. She reported that:

1. farm size did not appear to be an important factor in the probability of 4-H enrollment.

2. nearly as many children of tenant farmers as compared to children of owner-operated farmers were reached by 4-H Clubs. The difference was not significant.

3. the more formal education the parents had received, the grater the chance of 4-H membership of their children.

However, in a later study which was part of a longer, longitudinal study, Middleton[22] found his subjects more likely to be in clubs if:

1. their fathers were farmers.

2. their parents owned farms.

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[21] Crile, op. cit.

[22] C. O. Middleton, "A Comparison of the Family Background and Status Between 4-H Members and Non 4-H Members Who Are in the Sixth and Ninth Grades in Ten Wisconsin Communities" (unpublished Master's thesis, University of Wisconsin, Madison, Wisconsin, 1958) cited in Review of Extension Research, Federal Extension Service Circular 532, United States Department of Agriculture (Washington, D. C.: Government Printing Office, July, 1960), pp. 47-48.

3. their nationality background was Scandinavian, Bohemian or German rather than Polish or English-Scotch-Irish.

4. their religious preference was Lutheran, Presbyterian, Methodist or Protestant rather than Catholic or mixed affiliations.

Another important study was that of Kreitlow, Pierce, and Middleton.[23] This study was part of a larger longitudinal study started in 1949 and continuing until 1972. The study compared Wisconsin sixth grade 4-H members, non-members and drop-outs in order to analyze their school and home background. After comparing members and non-members, it was found that the analysis:

> revealed a real difference between the two groups in mental ability, school achievement, willingness to work, and in their home and family background. The 4-H members rate higher on these items when they are in the sixth grade in school and these same youngsters rated higher on many parts of these items when they were in the first grade.[24]

When the members and drop-outs were asked what they liked best about the 4-H program, the opportunity to learn was expressed by one-third of the members. Working with boys and girls was mentioned by one-fourth and projects were expressed by one-fifth of the member group. In comparison, the drop-outs mentioned each of the above for their top three, but the order in which they were mentioned was reversed.

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[23]Kreitlow, Pierce, and Middleton, op. cit.

[24]Ibid., p. 2.

The drop-outs were asked why they dropped their membership. The reasons and the percentages of the children who gave that reason are listed for the first three reasons:

1. the club program was weak. 33%
2. the club was not easily available. 18%
3. there were too many other things to do. 14%

It was interesting that one-third of the children were critical of the program. Their reasons involved administrative details as well as the educational program.

Studies by Other Youth Groups

Although studies by other youth groups on their drop-out problems are not readily available, studies on both the Boy Scouts and Girl Scouts have been made.

The Girl Scout Study[25] included girls from Brownies to Seniors. However, a comparison between Scouts who dropped out with those who stayed in the program demonstrated that:

1. fathers of Scout drop-outs were more likely to be employed as blue-collar workers than to be self-employed or professional workers.
2. mothers of the drop-outs were more likely to be employed.
3. both parents of the drop-out Scouts were less likely to have attended or graduated from college.

It was concluded that:

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[25]Survey Research Center, Institute for Social Research, University of Michigan, A Highlight Summary of a Study of the Program of the Girl Scouts of the U. S. A. (Ann Arbor, Michigan: University of Michigan Press, September, 1958).

> It can now be seen that this difference between the Scout group and the general population of girls is not only based on a greater appeal of Scout activities to girls of more privileged origin, but as much and perhaps more on the differential availability of Scouting at the Brownie and Intermediate levels to girls of different income groups. The problem of the "hard to reach" is, perhaps, not so much these girls' potential interest as the length of the organization's arm.[26]

The study supported by the Boy Scouts of America[27] drew upon a representative sample of boys in the United States who were between the ages of 11 and 13. Among many other aspects of the study, boys were asked why they had dropped out of any club to which they had once belonged. The answers were then classified into three main groups: personal preference, reality pressures, and organizational. In the eleven year old group, forty-three per cent gave personal preference as the reason. Some of the direct answers were general: lost interest in activity or had competing interests. Another forty-seven per cent listed reality pressures such as moving away or transportation difficulty as the reason for dropping. Twenty-seven per cent listed organizational reasons such as the group dissolving or the group becoming inactive.

This study also found that membership in groups is, again, more frequent for the sons of white collar workers than for blue collar workers. Likewise, boys with the

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[26] Ibid., p. 10.

[27] Survey Research Center, Institute for Social Research, A Study of Boys Becoming Adolescents (Ann Arbor, Michigan: University of Michigan Press, 1960).

greatest amount of personal possessions belonged to one or more groups more often than those with fewer possessions. Another area found that time involvement was not a very important factor in boys' membership in clubs. Boys who belonged to clubs were as busy with homework, jobs, chores, and television as those boys who did not belong to clubs.

In comparing home and club experiences, the boys in the sample felt more bored at home and experienced frustration at failure more at home than at the club. About one-half of the boys felt less independent at home than at the club. The feeling of competition was more frequently experienced at the club. Nine out of ten boys felt they received as much or more approval from their parents as from their teachers or club leaders; however, the boys felt they were less apt to be forced to do something they did not want to do at the club than at home or school.

In discussing the development of the self, the study found that boys had their greatest satisfaction from assuming some aspect of an adult role by performing a responsible task. Comparing non-members to members, there was a tendency for non-members to be more dependent on home and parents, which may be one reason for their not reaching beyond the home.

In conclusion, the study stated that:

> The fact that there is no single set of activities, no one design that all boys want for an organization, means that no single program can hope to appeal to all boys of this age group. There are perhaps certain

> activities that appeal to a larger proportion of the age range than to any other grouping of boys, but it also means that any agency which seeks broad membership might do better to have only rather loose overall programming and to permit local units relative freedom to select content and organizational designs best suited to the particular community and kind of youth they serve.[28]

Underlying Factors in 4-H Club Drop-Out

Sabrosky's[29] booklet was written after the results from the Western 4-H Study were known. It was an important step in 4-H studies. She reported that the first year members sometimes found themselves in a situation which did not satisfy some of their basic developmental needs. She named the needs for attention, prestige and a continuing sense of personal security as important to the first year 4-H Club member. She felt that an effort by leaders, agents, and parents to help effectively satisfy these needs would reduce the number of drop-outs in 4-H.

Sabrosky summarized the need for more research of this type by saying:

> Many 4-H workers are now ready to dig deeper into the effectiveness of 4-H Club work, or of certain activities or projects included in 4-H Club work. In the near future, even more State 4-H workers will be asking for this kind of help--will want to move toward actual evaluation of the 4-H Club program, in light of objectives and needs.[30]

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[28] Ibid., p. 214.

[29] Sabrosky, Meeting the Basic Needs of First Year 4-H Club Members, op. cit.

[30] Sabrosky, "Present Status of 4-H Club Studies," op. cit., p. 1.

The studies reported in the review of literature indicate that little is known about the effects of personality characteristic differences on enrollment and re-enrollment in 4-H and other youth groups. Several of these studies, however, do mention possibilities that personality characteristics may be an influence. It is for this reason that the hypotheses in this study were stated as follows in Chapter III.

CHAPTER III

METHODS AND PROCEDURES

A statement of this research problem and a review of literature were discussed in the foregoing chapters. The assumptions and hypotheses, method of sample selection, instrument, and statistical analyses are presented in this chapter.

Assumptions and Hypotheses

Assumption I. The Michigan Picture Test is a valid measurement of selected personality characteristics of children.

Assumption II. Eleven year old children are able to verbalize emotional reactions in response to a stimulus.

Hypothesis I. A difference significant at the .05 level exists between the experimental group and the control group on the tension index as defined by the Michigan Picture Test.

Hypothesis II. A difference significant at the .05 level exists between the experimental group and the control group on the verb tense score as defined by the Michigan Picture Test.

Hypothesis III. A difference significant at the .05 level exists between the experimental and the control group on the direction of forces score as defined by the Michigan Picture Test.

Description of Sample

The subjects for this study were twelve matched pairs of eleven-year-old children. The experimental group was

composed of children who dropped out of the 4-H Club program after completing the first year requirements. The control group was composed of children who completed the first year requirements of the 4-H Club program and continued into their second year.

Each of the children met these qualifications:

1. They were eleven years old at the time the data was collected.
2. They had completed one year of 4-H Club work.
3. The family residence had not changed from one community to another.
4. The 4-H Club leadership had not changed.
5. They had not dropped out of one club and immediately become a member of another.

Each of the pairs was matched according to the following criteria:

1. They were both of the same sex.
2. They were both members of the same 4-H Club.
3. They had intelligence quotients within $\pm$ five points of each other as shown by the school records.
4. They were both living with natural parents.

Population

The population from which the sample was drawn consisted of 4-H Club members in the Northern Agricultural Extension District in Idaho. There were nine counties in the district: Benewah, Bonner, Boundary, Clearwater, Idaho, Kootenai, Latah, Lewis, and Nez Perce.

Sample Selection

The Idaho State 4-H Club office furnished the enrollment records for each county in the Northern District for the enrollment years 1961-1962 and 1962-1963. Each club was examined for:

1. total number of boys and total number of girls who were nine or ten when they enrolled as a first year member in 1961-1962;
2. total number of boys and total number of girls who were ten or eleven as second year members in 1962-1963.

The results are shown in Table 1.

TABLE 1.--Number and percentage of first year 4-H drop-outs in nine northern Idaho counties.

	Total Boys	%	Total Girls	%
1961-1962	384		764	
1962-1963	235		478	
Drop-outs	149	38.8	286	37.4

The ratio of boys to girls in the experimental group of the study was the same as the ratio of boys to girls in the group of first year 4-H members who did not re-enroll.

The percentage of boy drop-outs to girl drop-outs was 38.8 to 37.4. Because this seemed insignificant, the ratio for the boys to girls was not weighted. The ratio of

149:286 is 1.92. With so small a sample, the ratio of 1 to 2 was used, or one boy for every two girls, which made a total of eight pairs of girls and four pairs of boys.

A comparison was made between the enrollment records for 1961-1962 and 1962-1963 in order to obtain the names of all boys and girls appearing on the 1961-1962 records and not on the 1962-1963 records. It was also discovered that some 4-H Clubs did not reappear on the 1962-1963 records, and some clubs were listed for 1962-1963 which had not been shown previously. The names of the boys and girls and the names of the clubs were sent by counties to each county's agricultural extension agent. He was asked to advise whether:

1. the child had enrolled in another club.
2. the child had moved to another community.
3. the child had not completed even the first year of 4-H Club work.
3. the clubs listed were functioning during 1961-1962 or 1962-1963.

When the lists were returned by the county agents, another list was made from them, by counties, of all boys and girls who had dropped out of 4-H, had not moved to another community, and had completed the requirements for the first year of 4-H. This was compared again with the enrollment records of 1962-1963 with all possible matches being noted. In many instances there was no child of the same sex or age with which to match the drop-out. In this

manner, a total of twenty-two pairs of girls and seven pairs of boys were found.

After finding all of the eligible pairs, the six counties, Boundary, Bonner, Idaho, Kootenai, Latah, and Nez Perce, which had paired children were alphabetized. Next, all of the clubs which had pairs of girls and all of the clubs which had pairs of boys were alphabetized within each county. Each girl pair was assigned a number from one to twenty-two, and each boy pair was assigned a number from one to seven.

The table of rancom numbers in Snedecor's *Statistical Methods*[31] was used to draw the sample. Twenty-two for the row number and seven for the column number determined the starting point. To select the boys it was arbitrarily decided to go vertically down the row and select numbers one through seven as they appeared. To select the girls, the starting point was the same as the boys, but the numbers were examined by pairs until all numbers from one through twenty-two had been selected. The order of the drawing is shown in Table 2.

Permission was obtained from the superintendent of schools in each district where a pair of children resided to obtain intelligent quotient ratings from

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[31]George W. Snedecor, Statistical Methods (5th edition; Ames, Iowa: The Iowa State College Press, 1956), pp. 10-13.

the school records and to administer the test to the children in the school if the pair matched. In all cases the superintendent notified the principal of the school involved to inform him of the study and to obtain his co-operation.

TABLE 2.--Order of sample pairs when drawn.

Boys		Girls	
Pair Drawn	Original Order	Pair Drawn	Original Order
1. Coeur d'Alene	3	1. Moscow	12
2. Samuels	1	2. Cataldo	8
3. Moscow	7	3. Lewiston	16
4. Genesee	6	4. Bovill	13
5. Rathdrum	4	5. Lapwai	17
6. Coeur d'Alene	5	6. Bovill	14
7. Post Falls	2	7. Naples	3
		8. Lapawi	18
		9. Cottonwood	6
		10. Cottonwood	4
		11. Newport-Blanchard	1
		12. Sandpoint	2
		13. Cottonwood	5
		14. Post Falls	10
		15. Lewiston	20
		16. Lewiston	22
		17. Potlatch	11
		18. Lewiston	19
		19. Athol	7
		20. Bovill	15
		21. Lewiston	21
		22. Kellogg	9

In some cases there was a difference of more than $\pm$ five intelligence quotient points, and the next pair down the list was used. Some children were not in attendance at a school in the district, having moved within the year; thus they could not be used. The pairs finally used in the study

along with reasons why other pairs were not used are shown in Table 3.

TABLE 3.--The sample pairs used in the study.

Boys		Girls	
Location	Reason	Location	Reason
Coeur d'Alene	1. used	Moscow	moved
Samuels	mismatch-age	Cataldo	1. used
Moscow	moved	Lewiston	2. used
Genesee	2. used	Bovill	3. used
Rathrum	3. used	Lapawi	4. used
Coeur d'Alene	4. used	Bovill	5. used
		Naples	moved
		Lapawi	moved
		Cottonwood	6. used
		Cottonwood	7. used
		Newport-Blanchard	out-of-state
		Sandpoint	I.Q. difference
		Cottonwood	8. used

Projective Technique

The term projective technique refers to types of personality tests that, according to Zubin, Eron, and Schumer:

> deal with material that is usually unstructured or ambiguous, supposedly permitting S to project his own wishes, desires, and needs into the unstructured stimulus.[32]

Some of the reasons for the usefulness of a projective test to obtain certain kinds of data were given by Selltiz, Jahoda, Deutsch, and Cook in their book on social science research. These were:

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[32]Joseph Zubin, Leonard D. Eron, and Florence Schumer, An Experimental Approach to Projective Techniques (New York: John Wiley and Sons, 1965), p. 14.

1. The subject may find it easier to express himself if he is not explicitly talking about his own feelings and attitudes, even though he knows that what he says will be so interpreted.
. . . . . .
2. With the best intentions in the world, the subject may be unable to describe his feelings and attitudes as accurately as they may be discerned in the projective test situation.
. . . . . .
3. Sometimes access to certain populations of potential subjects (e.g., school children, workers in a factory, etc.) may be withheld if the topic under investigation is made explicit to the subjects, but granted if it remains tacit even though obvious.
. . . . . .
4. Even though the purpose of a projective attitude test is apparent, it may produce more extensive information than a questionnaire or even an interview with open-ended questions would.[33]

The Instrument

The Michigan Picture Test,[34] published in 1953, was developed by Hartwell, Walton, Andrew, and Hutt under the sponsorship of the Department of Mental Health of the State of Michigan.

The test, a projective personality technique used to evaluate children eight to fourteen years of age, had these purposes, as described by the authors:

1. to investigate and measure the emotional reactions of children in the preadolescent and adolescent stages of development . . . [when] children find it particularly difficult to verbalize and to describe their emotional problems.

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[33]Claire Selltiz, Marie Jahoda, Morton Deutsch, and Stuart W. Cook, Research Methods in Social Relations (New York: Holt, Rinehart, and Winston, 1962), pp. 287-288.

[34]Michigan Department of Mental Health, Michigan Picture Test: The Evaluation of Emotional Reactions of Children Eight to Fourteen Years of Age (Chicago: Science Research Associates, Inc., 1953).

. . . . . .

2. to develop a projective picture-story . . . technique for children which would reveal this type of data--one for which objective methods of analysis could be developed.[35]

Using both school children and clinic case children, the authors pre-tested nearly 1,000 pictures along six criteria lines in order to select the fifteen pictures used in the Test. A blank card was added, and the pictures were divided into a group of twelve cards for girls and another group of twelve cards for boys. Some cards were common to both groups.

In order to arrive at discriminating test variables, a cross-section of Michigan school children and clinic case children were tested with the Michigan Picture Test by trained researchers. The school children were rated by their classroom teacher on an eleven-item scale of pupil adjustment. A high adjustment group and a low adjustment group were selected by using the upper thirty-three per cent and the lower thirty-three per cent as defined by an emotional adjustment score on the pupil rating scale. This process tested the significance of test variable's ability to discriminate between groups of well and poorly adjusted children. Eight variables were studied, and three were effectively able to discriminate at nearly all grade levels: third, fifth, and seventh/ninth, for the variables of

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[35] Ibid., pp. 25-26.

tension index, verb tense, and direction of forces. Critical scores were established for each of the three variables. The other five variables showed trends that would be of value to a clinician but were not statistically significant.

A later study obtained test scores, rating sheet scores, and data on each child as to his:

> age, grade, intelligence quotient, school, socio-economic status, ordinal position in the family, number of children in the family, the parents or others with whom he lives, and race. The only significant relationships between poor adjustment and any of the basic variables were on socio-economic status, low intelligence, and children who live with someone other than both natural parents.[36]

The basic standardization of the Michigan Picture Test was centered on four core cards, 1, 6, 9, 12, which were used for scoring the variables of tension index and verb tense. A third variable, direction of force, had normative data established for only one core card, 6, but had discriminatory data given by two non-core cards, 2 and 7.

Test variables were scored by analyzing the content of stories given by the children in the test situation to core cards 1, 6, 9, and 12, for tension index and verb tense, and cards 2, 6, and 7 for direction of forces. The scoring process consisted of closely examining and comparing the examples given in the scoring section of the manual,

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[36] Ibid., p. 54.

with the content of each child's stories. A score for each of the three variables was obtained by totaling the number of times a particular variable was mentioned.

Each variable, tension index, verb tense, and direction of forces, had a critical score which differentiated between the well-adjusted and poorly-adjusted groups. According to the authors,

> critical scores were selected to include the maximum percentage of poorly-adjusted children, while excluding the maximum percentage of well-adjusted children. . . . The greater the distance above or below the critical score, the greater the probability that the child can be "correctly" placed in one of the two categories of adjustment.[37]

Reliability

The reliability was described by the developers in the following manner:

> With projective personality tests . . . the usual methods of demonstrating test reliability are not applicable, since the dynamics of personality are subject to variation from one time to another, particularly during psychotherapy. With projective techniques, the customary method is to demonstrate consistency between the independent analyses of the same stories by more than one examiner. This method has been followed in the Michigan Picture Test research project.[38]

All correlations on tension index scores obtained on the four core pictures which were evaluated by two judges on fifteen cases at each of the three grade levels were found to be significant at the .01 level.[39] The verb tense

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[37] Ibid., pp. 64-65.

[38] Ibid., p. 37

[39] Ibid., p. 38.

score was gained by counting all the past, present, and future tense verbs. No interjudge correlations were given for this variable as the scoring is simply a tabulation of the number of each English verb tense. The direction of forces interjudge correlations on the four core pictures for ten subjects at the fifth and seventh/ninth grade level were also significant at the .01 level.[40]

In summary, Zubin, Eron, and Schumer described the Michigan Picture Test in this way:

> The Michigan Picture Test has had the advantage of careful preliminary thought and design, good standardization, adequate normative study, and careful cross-validation. If this projective test is a model of the proper construction and evaluation of a thematic apperceptive technique, it is apparent that the other TAT derivatives fall far short of the standard.[41]

Data Collection

Each child was taken individually to a private room where he became acquainted with the experimenter and the recording equipment. The child was told that the experimenter was interested in finding what kind of stories sixth grade children told when they looked at interesting pictures. The twelve pictures for his sex were shown individually with the experimenter telling the child to make up any kind of story he wanted about each picture.

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[40] Ibid., p. 45.

[41] Zubin, Eron, and Schumer, op. cit., p. 508.

He was told he could tell what had happened, what the people in the story felt, what the people were doing, or perhaps how it would turn out. When the blank card was shown, the experimenter urged each child to see how good his imagination was in telling a story about a blank card. All children were told to tell the experimenter when a story was finished in order that they would be able to finish completely each story without interruption.

Scoring

Each test was scored for tension index and verb tense by using the stories from the core pictures 1, 6, 9, and 12. Direction of forces score was derived from stories of pictures 2, 6, and 7. Examples and procedure in the testing manual were closely followed.

Tension index, defined by the Michigan Picture Test, is:

> based on the verbal expression of four types of needs which are defined as follows:
>
> (a) Love--any verbal expression, whether positive or negative, indicating affection, belonging, or affiliation, friendship, or admiration. This usually involves a definite expression of interrelationship between human beings, or between human beings and animals, or between two or more animals. Occasionally, however, some inanimate object is given human characteristics, and in such cases any reference to a need is scored.
> . . . . . .
>
> (b) Extrapunitiveness--any verbal expression of aggression toward an external object. Such expressions include: oral aggression such as sarcasm, dislike, objection, belittling or anger, reproving, teasing, references to competition and to stealing; and, physical aggression such as pushing, fighting, pulling, hitting, killing, hurting, injury to other persons, aggressions

> involving damage or harm to some object. Aggression is not necessarily expressed through the action of a human figure.
>
> . . . . . .
>
> (c) Submission--any verbal expression of defeat, resignation, passivity, compliance, obedience, and acceptance of suffering without effort to overcome it. The person must be acted upon in some way and not make any effort to retaliate, but simply accept the action.
>
> . . . . . .
>
> (d) Personal Adequacy--any verbal reference, whether positive or negative, of happiness, strength, competence, or any reference to the temperament or physical characteristics of human or animal figures in the story.[42]

The authors of the Michigan Picture Test state that:

> our results indicate that maladjustment may also be reflected in the relative emphasis on different needs. . . . We may conclude that typically well-adjusted children in the eight-to-fourteen-year age range distort the obvious nature of the stimulus less than do poorly-adjusted children in the same age range. Well-adjusted children also tend to project fewer needs into story content.[43]

To obtain a score on tension index, the total references to needs for each core card 1, 6, 9, 12, were scored, and that number was the score. A score of five or above at the seventh/ninth grade level indicated maladjustment.[44]

The verb tense score was obtained by counting all of the past, present, and future verbs in the stories for the core cards. A percentage of the total number was figured for each tense. For seventh/ninth grades, a score of 18 or above on past tense indicated maladjustment, and a score

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[42] Michigan Department of Mental Health, op. cit., pp. 66-67.

[43] Ibid., p. 90.

[44] Ibid., p. 82.

of 70 or below on present tense indicated maladjustment.[45] Future tense did not discriminate in the normative data at any level; therefore, the percentage score was not used in the analysis of the data.

The authors of the Michigan Picture Test found that tense was an effective discrimination between well- and poorly-adjusted children. They wrote:

> . . . well-adjusted children differ from poorly-adjusted children in that they give a smaller proportion of past tense references. These results support the conclusion that poorly-adjusted children who are experiencing difficulty with present conflicts use past tense as one means of attempting a resolution of their difficulties.[46]

Direction of forces is defined in the Michigan Picture Test Manual as:

> the action of the story, specifically to the forces impinging on or emanating from the central figure of character. There are three classifications for direction of forces: (1) centrifugal or outward action, in which forces are emanating from the central figure of the story; (2) centripetal or inward action, in which forces are being directed upon the central figure; and (3) neutral, which means that no direction of forces is clearly indicated. For purposes of this test, the central figure is defined as that person or figure in the picture about or around whom the obvious interest of the story is focused.[47]

The score for direction of forces was obtained by scoring pictures 2, 6, and 7 for the variable and assigning a weight to each direction expressed or not expressed for each picture. A weighted score for all three pictures of

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[45] Ibid., p. 83.

[46] Ibid., p. 90.

[47] Ibid., p. 72.

eight or more was considered indicative of maladjustment at the seventh/ninth grade level.[48]

Validation of Experimenter's Scoring

Three children not included in the sample were given the Michigan Picture Test prior to the data collection procedure. The tests were administered and scored by the experimenter, and later were checked carefully in conference by the major professor.

Each of the twenty-four tests administered to the sample was tape recorded and checked for accuracy after the information was typed.

Method of Statistical Analysis

Each of the twenty-four tests was scored according to the criteria set up in the Michigan Picture Test Manual. A score was obtained for each child on tension index, past tense, present tense, direction of forces, total words on pictures 1, 6, 9, 12, total words on pictures 2, 6, 7, and total words for pictures 1, 2, 6, 7, 9, and 12.

A test of significance for small samples, using Fisher's table of "t," was used to test the difference of means for the experimental girls and control girls, experimental boys and control boys, and experimental total group and control total group on each of the four possible scores outlined in the Michigan Picture Test: tension index, past tense, present tense, and direction of forces.

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[48] Ibid., p. 84.

In a second analysis of the data, simple correlations were computed by the Michigan State 3600 Computer among each of the seven variables. This correlation was obtained for the total group, girls only, and boys only by comparing each of the seven variables with tension intex, past tense, present tense, direction of forces, total words for pictures 1, 6, 9, 12, total words for pictures 2, 6, 7, and total words for all scored pictures: 1, 2, 6, 7, 9, and 12.

Other correlations were obtained by comparing the scores from the experimental group of girls with the control group of girls, and then the experimental group of boys were compared with the control group of boys on each of the above seven variables. A "t" test to determine the significance of the difference between correlations was performed.

CHAPTER IV

RESULTS OF ANALYSIS

The results of the first analysis, a test of significance for small samples using Fisher's table of "t," will be presented in terms of each hypothesis given in Chapter III.

Hypothesis I. A difference significant at the .05 confidence level exists between the experimental group and the control group on the tension index score as defined by the Michigan Picture Test. This hypothesis could not be supported by the test of significance. The results are shown in Table 4.

However, a difference significant at the .05 level did exist for the tension index variable between the experimental and control groups of girls only.

TABLE 4.--The results of a test of significance on mean differences between tension scores.

Variable	Group	$\bar{D}$	t	p
Tension	Girls	-7.25	-2.5	.05
	Boys	2.5	1.13	.40
	Girls & Boys	-4.0	-1.64	.20

Key: $\bar{D}$ = mean difference; t = t value; p = probability.
This key will be used on Tables 5, 6, and 7 in this thesis.

Hypothesis II. A difference significant at the .05 confidence level exists between the experimental and control group on verb tense score as defined by the Michigan Picture Test. Both the percentages of the past and the present tense were individually tested. As shown in Tables 5 and 6, none of the differences was significant.

TABLE 5.--The results of a test of significance on mean differences between present tense scores.

Variable	Group	$\bar{D}$	t	p
Present Tense	Girls	13.63	1.33	.40
	Boys	10.00	.50	.80
	Girls & Boys	12.42	1.38	.20

TABLE 6.--The results of a test of significance on mean differences between past tense scores.

Variable	Group	$\bar{D}$	t	p
Past Tense	Girls	-13.63	-1.34	.40
	Boys	-14.00	- .64	.60
	Girls & Boys	-13.75	-1.47	.20

Hypothesis III. A difference significant at the .05 level exists between the experimental and the control group on the direction of forces score as defined by the Michigan Picture Test. To test for any significant differences in the direction of forces score, the weighted scores, as determined by the Michigan Picture Test, were used. The results, shown in Table 7, were not significant for any group.

TABLE 7.--The results of a test of significance on mean differences between the direction of forces scores.

Variable	Group	$\bar{D}$	t	p
Direction of Forces	Girls	.5	.34	.80
	Boys	.5	.43	.80
	Girls & Boys	.17	.16	---

The results of the analysis of the data as computed by the Michigan State University 3600 Computer are presented in Tables 8 through 12.

Results of the first analysis, multiple simple correlations among the seven variables, are reported in Tables 8, 9, and 10. These are for girls only, boys only, and the total group.

Of the twenty-one correlations among the score variables for girls only, three were significant at the .05 level and eight were significant at the .01 level; while only one of the twenty-one correlations for boys was significant at the .05 level and two were at the .01 level. Among the correlations for the total group, two were at the .05 level of significance and seven were at the .01 level.

The results of the second analysis of the data in which the girls' and the boys' scores of the experimental subjects were correlated with the girls' and the boys' scores of the control subjects on each of the seven variables are reported in Tables 11 and 12.

TABLE 8.--Simple correlations among variables for girls only.

		Tension 1	Pasttnse 2	Prsntnse 3	Directn 4	PCS16912 5	PCS267 6
Tension	1	1.000					
Pasttnse	2	0.644**	1.000				
Prsntnse	3	-0.603*	-0.993**	1.000			
Directn	4	0.088	-0.230	0.187	1.000		
PCS16912	5	0.877**	0.516*	-0.467	-0.205	1.000	
PCS267	6	0.777**	0.342	-0.292	0.033	0.823**	1.000
Totalwds	7	0.886**	0.508*	-0.457	-0.143	0.984**	0.909**

Key:
Tension = Tension Index
Pasttnse = Past Tense Verb
Prsntnse = Present Tense Verb
Directn = Direction of Forces
PCS16912 = Total words on pictures 1, 6, 9, and 12
PCS267 = Total words on pictures 2, 6, and 7
Totalwds = Total words on pictures 1, 2, 6, 7, 9, and 12

*p = .05 = .497
**p = .01 = .623

This key will be used on Tables 9, 10, 11, and 12 in this thesis.

TABLE 9.--Simple correlations among variables for boys only.

		Tension 1	Pasttnse 2	Prsntnse 3	Directn 4	PCS16912 5	PCS267 6
Tension	1	1.000					
Pasttnse	2	-0.240	1.000				
Prsntnse	3	0.124	-0.992**	1.000			
Directn	4	-0.504	-0.478	0.557	1.000		
PSC16912	5	0.373	-0.344	0.287	0.020	1.000	
PCS267	6	0.672	-0.048	-0.049	-0.247	0.702	1.000
Totalwds	7	0.550	-0.228	0.150	-0.166	0.968**	0.802*

*p = .05 = .707
**p = .01 = .834

TABLE 10.--Simple correlations among variables for total group.

		Tension 1	Pasttnse 2	Prsntnse 3	Directn 4	PCS16912 5	PCS267 6
Tension	1	1.000					
Pasttnse	2	0.418*	1.000				
Prsntnse	3	-0.427*	-0.992**	1.000			
Directn	4	-0.180	-0.310	0.303	1.000		
PCS16912	5	0.858**	0.354	-0.337	-0.304	1.000	
PCS267	6	0.789**	0.263	-0.245	-0.137	0.837**	1.000
Totalwds	7	0.874**	0.366	-0.348	-0.273	0.985**	0.913**

* p = .05 = .404
** p = .01 = .515

TABLE 11.--Simple correlations between scores of experimental girls and scores of control girls.

		Tension 1	Pasttnse 2	Prsntnse 3	Directn 4	PCS16912 5	PCS267 6	Totalwds 7
Tension	1	0.952**						
Pasttnse	2		0.186					
Prsntnse	3			0.187				
Directn	4				-0.476			
PCS16912	5					-0.432		
PCS267	6						-0.450	
Totalwds	7							-0.442

*p = .05 = .707
**p = .01 = .834

TABLE 12.--Simple correlations between scores of experimental boys and scores of control boys.

		Tension 1	Pasttnse 2	Prsntnse 3	Directn 4	PCS16912 5	PCS267 6	Totalwds 7
Tension	1	0.709						
Pasttnse	2		-0.192					
Prsntnse	3			-0.426				
Directn	4				-0.577			
PCS16912	5					0.267		
PCS267	6						0.336	
Totalwds	7							0.413

*p = .05 = .950
**p = .01 = .990

CHAPTER V

DISCUSSION AND IMPLICATIONS

Although none of the hypotheses of the study was confirmed by the results of the analysis of the data, some of the trends of the study were worth nothing.

One significant difference at the .05 level was the tension index score for the girls. The girls in the control group had a mean difference that was 7.25 points higher than the girls in the experimental group. This would indicate the girls in this study who stayed in 4-H expressed a greater number of needs, as mentioned in this study, than those who dropped out of the program. All of the individual scores for the control girls were at or above the critical score of eight for this variable. The authors of the Michigan Picture Test noted that: "the greater the distance above or below the critical score, the greater the probability that the child can be 'correctly' placed in one of the two categories of adjustment."[49]

When the tension index scores of the experimental girls were correlated to the scores of the control girls, the correlation, 0.952, was significant at the .01 level. This would indicate that the scores between the two groups

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[49] Ibid., p. 65.

vary in the same manner; whereas, the correlation between the control and experimental girls' scores for total number of words for pictures 1, 6, 9, and 12 was -0.432. Although this correlation is not statistically significant, it does indicate a trend that the control girls used more words or were more verbal in their discussion of the pictures from which the tension score is derived.

Several questions can be raised concerning the reasons for the higher tension scores for the control girls. Are 4-H girls actually more verbal in expression of tension than non-4-H girls? Does the 4-H program provide an outlet for this tension; therefore, does it appeal to a girl who needs an outlet for tension? Does the 4-H program provide areas where tension needs can be expressed? Lastly, does 4-H appeal more to a person who has higher tension levels than to one who does not.

It is also interesting to consider the relationship between the higher tension score for girls and the structure of the 4-H program. The 4-H program is relatively highly structured in many ways. There are definite outlines for projects and certain steps to be taken before completion of the project. In order to complete the year and earn credit for the project, a record book of the project must be completed, and, in most cases, the results of the year's efforts must be exhibited in a 4-H show. One could take the position that the 4-H program teaches responsibility in

carrying out and finishing tasks and hard work in achieving a reward. Does it continue to reinforce what many children have already been taught in their families? If a child has not had a background that has already oriented him to these kinds of values, might he drop out of 4-H because the values being expressed in 4-H were not important to him, did not appeal to him, or did not meet his needs? Does the 4-H Club present a varied enough program to reach and interest children of many different individual personalities and needs?

The mean difference on the tension variable for boys was not significant. This may have been because the number of boys in the study was so small, or it may have been an artifact of the instrument since sex differences in responses to the Michigan Picture Test have not yet been validated. According to its authors,

> We have also found that the sex of the respondent may make a difference in some of the variables which we have tested. Unfortunately, our work thus far has not permitted an extensive study of the effect of sex differences upon responses to the test stimuli.[50]

The trend of the total group scores on the tension index showed that the control group was generally higher on this variable than was the experimental group. This difference was significant at the .20 level only, however.

Of the four variables, tension index, past tense, present tense, and direction of forces, the constructers of

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[50] Ibid., p. 13.

the Michigan Picture Test found that the tension index was the most completely validated variable.[51] They recommended that it be the variable scored if for some reason it was possible to score only one.

The intercorrelations between the variables tension index, past tense, present tense, and direction of forces for the total group in this study were compared to intercorrelations given by the authors of the Michigan Picture Test[52] in Table 13.

Table 13.--Comparison of variable intercorrelations of this study with a study of authors of Michigan Picture Test.

	Tension Index		Direction of Forces	
	MPT	4-H	MPT	4-H
Past Tense	.32	.42	.33	-.31
Present Tense	-.18	-.43	-.30	.30
Direction of Forces	.51	-.18		

As the correlations were fairly low, it should indicate that the variables measure different attributes. Depending on the characteristics of the group, the interaction, and therefore, the correlations, would probably vary in direction.

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[51] Ibid., p. 94.

[52] Ibid.

Implications for Further Study

Several questions have been raised in this study which could be the starting point for several interesting and challenging investigations.

An analysis of personality characteristics of a much larger sample of 4-H children may yield more significant information concerning any characteristics that may differ between the 4-H child and the drop-out. Unless the research could be done by several people, a testing instrument that would have faster scoring than the Michigan Picture Test may be considered.

Another study of importance would be what significant personality differences, if any, exist between the boys and the girls in the 4-H population and the 4-H drop-outs. If any were found, this would present some challenging problems in the area of program planning to meet individual needs. A comparison of possible personality characteristics of 4-H children taking a particular kind of project as compared with another may be considered; whereas another study could deal with the personality characteristics of boys and girls taking the same projects.

If a satisfactory test to determine the soci-economic level of farm families could be utilized, a variable concerning that area could be very important in matching children in a sample or simply comparing large groups of children. This additional variable may uncover information that would be extremely important in possible program development to meet

certain individual needs of children or to reach certain groups of children. Much work could be done in a study of the values that a particular socio-economic class holds for its young people and how these values may relate to the 4-H Club program.

Other variables which could be added to a study would be: the number of siblings in a family, whether any of these siblings are 4-H members or dropouts, what ordinal position the child holds in a family, and whether a parent is a 4-H leader.

In conclusion, this study was not able to determine any significant personality variables for the study group as a whole. However, possibilities for further study have been posed that could be significant for future 4-H program planning.

CHAPTER VI

SUMMARY AND CONCLUSIONS

Certain personality characteristics of enrolled and drop-out 4-H children were investigated in order to ascertain what personality differences may exist between the two groups.

The subjects were twelve matched pairs of eleven-year-old children who had completed one year of 4-H Club work. The control group of children had remained in the 4-H program, and the experimental group had dropped out of 4-H after the completion of the first year. Each pair was matched according to these criteria: (1) both were of the same sex, (2) both were members of the same 4-H Club, (3) both had intelligence quotients within $\pm$ five points, and (4) both were living with natural parents. The ratio of boys to girls in the study was the same as the ratio of boys to girls in the group of first year 4-H drop-outs in the Northern Idaho Extension District during 1962-1963. This ratio was 1:2, or four pairs of boys to eight pairs of girls.

Each of the twenty-four children was individually administered the Michigan Picture Test, a projective personality technique, in his school setting. The tests were scored by the experimenter.

The results of each test were evaluated for three personality variables: tension index, verb tense, and direction of forces, and for total words for pictures 1, 6, 9, 12, pictures 2, 6, 7, and pictures 1, 2, 6, 7, 9, and 12. A score was assigned each variable, and the scores were individually and collectively analyzed.

The results did not show a significant difference between the control and the experimental group on the three personality variables: tension index, verb tense, and direction of forces. However, a mean difference at the .05 level was found between the experimental girls and the control girls on the tension variable. The control girls, or those who had stayed in 4-H, were found to have higher scores on this variable which indicated that they expressed greater amounts of tension needs.

As the mean difference on the tension score for boys was not significant, the data appears to lend support to the effect of sex differences in subjects' responses to the test; however, the results may have been strongly influenced by the smallness of the sample.

The correlation of the tension index scores of the experimental girls to the control girls was significant at the .01 level, thereby indicating that the groups varied in the same manner. However, the correlation between these groups for total words on pictures 1, 6, 9, and 12, although not statistically significant, showed a trend that the

control girls were more verbal than the experimental girls in the discussion of the pictures used to score the tension index variable.

Findings of the study suggest a need to explore the possibility that the 4-H Club program may appeal to a girl who scores higher on a tension index than one who does not. Another area to consider would be whether there may be a difference between personality needs of boys and girls in the 4-H program.

This study lends support to 4-H research concerning a flexible program to meet individual needs of children. A closer look at 4-H program planning should be continued to determine what types of programs may meet the many needs and personalities of all groups of children.

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APPENDICES

APPENDIX I

Raw Scores on Seven Variables for Twenty-four Subjects

Number	Sex	Tension	Past Tense	Present Tense	Direction of Forces	Total Words 16912	Total Words 267	Total Words 1267912
1E	G	14	62	31	9	214	128	313
2E	G	14	20	80	6	266	118	325
3E	G	19	71	29	6	230	126	314
4E	G	15	20	80	11	206	117	272
5E	G	9	22	78	6	358	221	477
6E	G	11	38	56	8	225	135	314
7E	G	14	28	70	8	411	156	499
8E	G	12	40	60	5	298	133	381
9E	B	12	19	75	11	305	172	378
10E	B	21	13	77	7	258	153	365
11E	B	8	54	46	11	198	106	269
12E	B	8	50	50	8	117	76	176
1C	G	21	64	31	10	299	129	369
2C	G	19	53	47	5	454	340	705
3C	G	45	75	25	10	979	504	1321
4C	G	25	83	16	1	713	164	804
5C	G	8	30	63	8	158	77	199
6C	G	15	37	63	8	302	138	397
7C	G	18	61	39	6	393	241	560
8C	G	15	7	91	7	339	198	451
9C	B	8	12	88	13	218	85	276
10C	B	13	92	8	7	212	147	316
11C	B	10	38	62	11	178	130	254
12C	B	8	50	50	8	277	118	354

E = Experimental Group; C = Control Group
B = Boy; G = Girl

APPENDIX II

Letter sent to extension agents, with a cover letter from Extension Studies Specialist.

La Dessa Rogers Smelcer is collecting data for her master's thesis in the field of child development. Her special research interest is re-enrollment and non-re-enrollment of ten-year-old first year 4-H club members. By using the state records of the nine Northern Idaho counties, she hopes to be able to match twelve pairs of children. One group of twelve children will be those who have dropped out of 4-H after one year. Each will be matched to a child who has remained in 4-H after the first year. A projective test will be administered to each of the children in a school situation.

She has reviewed the 1961-62 and 1962-63 records for your county. The following ten years olds were found on the 1961-62 records, but were not found on the 1962-63 records:

It would be most helpful if you would look over the names to see if any have:

1. Enrolled in another club.

2. Moved to another community.

3. Not completed even the first year of 4-H work.

In addition, these 4-H clubs were shown on the 1961-62 records, but the 1962-63 records did not contain these clubs. The following children were recorded as ten year old, first year members:

Similarily, the following clubs were recorded in 1962-63 and not in 1961-62 with these eleven year old, second year members:

Would you please inform Mrs. Smelcer if any of the above two groups of clubs were functioning during 1961-62 or 1962-63? It is necessary that the sample be drawn from clubs which were active during the two time periods.

You help and consideration would be very much appreciated by Mrs. Smelcer. Her address is:

La Dessa Rogers Smelcer
1015 6th Street
Rupert, Idaho

APPENDIX III

ANALYSIS SHEET for the MICHIGAN PICTURE TEST

NAME _____ DATE OF BIRTH _____ SEX _____ (M) (F)

DATE TEST ADMINISTERED _____ GRADE NORMS USED _____ ANALYSIS BY _____

TENSION INDEX

PICTURE NUMBER	LOVE	NUMBER	EXTRA-PUNITIVE	NUMBER	SUBMISSION	NUMBER	PERSONAL ADEQUACY	NUMBER	TOTAL
1									
6									
9									
12									
Totals									
Percent									

Above critical score _____

Emphasis on _____

VERB TENSE

	NUMBER OF REFERENCES							PER CENT OF REFERENCES		
PICTURE NUMBER	PAST	NUMBER	PRESENT	NUMBER	FUTURE	NUMBER	TOTAL	PAST	PRESENT	FUTURE
1										
6										
9										
12										
Totals	Past		Present		Future		Total four core=	%=	%=	%=

At or above critical score:

Past tense _____

Present tense _____

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Please use number 7-2146 to reorder this Analysis Sheet.

DIRECTION OF FORCES

Picture Number	Centrifugal	Weight	Centripetal	Weight	Neutral	Weight	Total Weighted Score
2							
6							
7							
						Sum of the weighted scores	
						At or above critical score	

INTERPERSONAL RELATIONS

	Number of References					Per Cent of References	
Picture Number	2-Person	Number	Over 2-Person	Number	Total	2-Person	Over 2-Person
1							
6							
9							
12							

PERSONAL PRONOUNS

		Number of References				Per Cent of References	
Picture Number	1st Person	Number	2nd/3rd Person	Number	Total	1st Person	2nd/3rd Person
1							
6							
9							
12							

PSYCHOSEXUAL

	Number of References											
Picture Number	Oral Passive	Number	Oral Sadistic	Number	Anal	Number	Oedipal	Number	Mastur-batory	Number	Cas-tration	Number
1												
6												
9												
12												

POPULAR OBJECTS

PICTURE NUMBER	POPULAR OBJECTS	TOTAL
1	father, mother, paper, boy, girl	
6	boy	
9	lightning	
12	boys	

COMBINED MALADJUSTMENT INDEX

GRADE	TENSION INDEX	TENSE		DIRECTION OF FORCES	COMBINED MALADJUSTMENT INDEX
		PAST	PRESENT		
3					
5					
7/9					

Check the occurrence of a "critical score."
For grade 3, the maladjustment index may range from 0 through 2.
For grades 5 and 7/9, the maladjustment index may range from 0 through 4.

LEVEL

		PER CENT OF REFERENCES							
POST-OEDIPAL	NUMBER	TOTAL	ORAL PASSIVE	ORAL SADISTIC	ANAL	OEDIPAL	MASTUR-BATORY	CAS-TRATION	POSTOEDIPAL

Summary and Recommendations: