A COMPARATIVE STUDY OF FACTORS RELATED TO CHILDREN WITH POOR AND SUPERIOR CITIZENSHIP RATINGS

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CHAPTER I

THE PROBLEM AND DEFINITIONS OF TERMS USED

Educators have agreed that the understanding of problems is of great consequence. The way people get along together or the way people act when they are in groups is an urgent problem, deserving a deepened understanding of why members of a particular group react as they do. The area of this investigation was the discovery of various factors recurring in the life history of a random sample of high school students and the relation of these factors as probable cause and effect in behavior.

I. THE PROBLEM

Statement of the problem. It was the purpose of this study to compare the historical data found in cumulative records of students who are rated poor and superior in citizenship. Comparisons were made on the following factors: (1) family background; (2) school factors including academic grade average, intelligence scores, number of good books read, attendance, participation in extra-curricular activities, and significant comments by former teachers; and (3) social and personal assets.

Importance of the study. Group living is important,

and its implications range from classroom discipline to world understanding. Syngg and Combs observed:

> Our society has become so complex and its people so interdependent that the failure of one individual among thousands can disrupt the delicate balance of organization so that millions may suffer. The behavior of an individual is no longer the concern of his own little group. It concerns all of us. But to deal adequately with the problems of human relationships, we shall need to understand as never before the whys and wherefores of human behavior.[1]

Since no other previous study elsewhere could list the specific causes leading to particular behavior patterns of the students under consideration in this study, this investigation was conducted to study and to compare the kind of lives these students have lived, are living, and desire to live as being significant causes of behavior.

The limitations of this study are acknowledged. Only the permanent records of students of Hildebran High School for the years 1952 and 1956 were examined. The academic grade averages were computed only on regular academic courses. Finally, the significant comments of former teachers were observed even though the individual teacher may have evaluated the situation on her own standards, thus making real the danger of subjective bias.

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[1]Donald Snygg and Arthur W. Combs, Individual Behavior (New York: Harper and Brothers Publishers, 1949), pp. 3, 4.

II. DEFINITIONS OF TERMS USED

Poor school citizen. Throughout this manuscript the term "poor school citizen" refers to those students of Hildebran High School who had a citizenship grade of "B-" or less.

Superior school citizen. The term "superior school citizen" refers to those students who had a citizenship grade of "B" or above.

III. ORGANIZATION OF THE STUDY

Chapter II is a review of the literature which summarizes some of the experiments conducted in various sections of the country directly related to the topic of this study.

Chapter III is concerned with an explanation of data and the general development of the problem:

1. Collection of data
2. Description of data
3. Description of sampling
4. Statistical treatment of data

Chapter IV is an explanation of the techniques used in the analysis and the results of the various experiments.

Chapter V summarizes the entire investigation in addition to drawing conclusions and making recommendations for further study.

CHAPTER II

REVIEW OF THE LITERATURE

A search through indexes and past literature produced many examples of experiments conducted throughout our country directly related to the study of group behavior. The consensus of these reports was so much benefit had resulted from these studies that many other teachers should undertake similar studies, for their own personal satisfaction and for the contribution these studies would make to their professional thinking and activity.[2]

The experiments and investigations recognized the powerful forces of human behavior and the need for a better understanding of the behavior of boys and girls. The members of the staff of the Horace Mann-Lincoln Institute of School Experimentation, Teachers College, Columbia University observed that:

> We realize that the major objective of curriculum experience is to modify behavior -- to help individuals and groups learn to act in such a way that there is a maximum growth for each and social developments for all. The more we realize this, the more certain we become that it is behavior rather than rote memorizing or the content of knowledge that is the substance of education.[3]

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[2]Ruth Cunningham and Associates, Understanding Group Behavior of Boys and Girls (New York: Bureau of Publications, Teachers College, Columbia University, 1951) p. 2.

[3]Ibid., p. vii.

Carl R. Rogers, who has had wide experience in dealing with behavior problems of children, said:

> Each year adds to the number of volumes which give understanding of the causes and bases of behavior, but the knowledge of how to modify and change behavior lies for the most part in the practical experience of clinical psychiatrists and psychologists, social workers, and teachers. Few serious attempts have been made to organize or set down in more than fragmentary form the extent of our knowledge in this area, since practical workers are notoriously backward in giving verbal expression to their techniques. As a consequence we find twenty books dealing with the origin of behavior problems for one which touches upon their treatment.[4]

Leontine R. Young, working in the School of Social Administration, Ohio State University, has observed that if one looks back of delinquency, one sees "a person - a hurt and miserable child - twisted by violence, stunted by hate and blinded by fears - but nevertheless a child."[5] The author further stated:

> We adults do not note that our concern is not for the child but for his behavior. We ask of him conformity, to be "good", but we do not inquire into his unhappiness. We set up rules and demand that he obeys them, but we do not observe what insistent demands spring from his own needs nor do we see any need to take account of them. We frown upon his anger and his violence and tell him to put them aside as if they were worn-out toys to be lightly discarded. That hate and anger do not simply evaporate is a fact we disregard;

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[4]Carl R. Rogers, The Clinical Treatment of the Problem Child (New York: Houghton Mifflin Company, 1939) p. 3.

[5]Leontine R. Young, "We Call Them Delinquents," Pastoral Psychology, (October, 1955) 14.

that in his past the child has had real reason for the violence of his emotions we ignore.[6]

C. Logan Landrum undertook a study in 1946 in Bibb County and in the city of Macon, Georgia for the purpose of studying the extent, causes, and treatments of juvenile delinquency among the child population. He stated that a study of the records shows that insufficient attention is given to the problem child in our school system and that it is largely in our treatment of the problem children that our schools fail to make a definite contribution to the prevention of delinquency.[7] He states further that since it has been pointed out repeatedly that school children who have a tendency to become delinquent manifest these tendencies early in their school career, children with these anti-social behavior patterns should be sought out and properly dealt with in order that a delinquent career might be frustrated.[8]

Another significant study was conducted by the center for Intergroup Education at the University of Chicago. The participants in the Center's programs concluded that a child's experience in his family and social group play a large role in shaping his ideas of what is right, what is

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[6]Ibid., p. 15.

[7]C. Logan Landrum, Our Delinquent Children (Minneapolis Institute of Crime Prevention, 1946) p. 22.

[8]Ibid.

wrong, and how people should behave.[9] Teachers must locate the sources of difficulty in order to learn how to eleminate or to control them.[10]

One of the most significant studies in the measurement of behavior motivation has been contributed by the staff of the psychological clinic of the Detroit Public Schools. This scale, known as "The Detroit Scale for the Diagnosis of Behavior Problems," has been a powerful instrument for appraising the problems and difficulties of children. It has been a guide or outline to the student of human relations analogous to a physician's outline of the physical characteristics of the human body.[11] "These difficult traits, however, are the very ones which must be measured if behavior adjustments are to be made."[12]

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[9]Hilda Taba and others, Diagnosing Human Relations Needs (Washington: American Council on Education, 1951) p. 1.

[10]Ibid., p. 4.

[11]Harry J. Baker and Virginia Traphagen, "The Diagnosis and Treatment of Behavior-Problem Children (New York: The macmillan Company, 1936) p. viii.

[12]Ibid., p. vi.

CHAPTER III

EXPLANATION OF DATA USED AND DEVELOPMENT OF PROBLEM

Chapter III is devoted to the explanation of the method of collecting data, the description of the data, a description of the sampling, and the statistical treatment of the data.

I. COLLECTION OF DATA

All data used in the statistical analysis in this investigation were secured from the cumulative folders filed in the office of the school principal.

Original data were recorded for each student selected for the study on duplicated forms on which were recorded the name of the student, the information on family background, on school factors including academic grade average, intelligence scores, the number of good books read, attendance, participation in extra-curricular activities, and significant comments by former teachers, and on social and personal assets. A copy of this duplicated form is in the appendix.

II. DESCRIPTION OF DATA

The exact description of the data used in this type of study is essential. The following is a brief description of the data used in the investigation.

Grades. In order to compare two categories of students on academic ability (grades) it was necessary to assign numerical values to the letter marks in each course. It was, therefore, decided to assign the values as follows: ten for "A+", nine for "A", eight for "A-", seven for "B+", six for "B", five for "B-", four for "C+", three for "C", two for "C-", and one for "D". By totaling the credit points and dividing this sum by the number of courses completed during a period of time, the average grade of the student was determined.

Intelligence Rating. The intelligence rating used in this study was the "Gamma IQ" made on the last administered Otis Quick-Scoring Mental Ability Tests.

Social and Personal Assets. On the permanent record folders (cumulative folders) and on the public school report cards are listed nine traits which are designated as "social- and personal assets". The key for rating each student on each on these assets is also given below the listing of assets.

1. . . Superior
2. . . Above Average
3. . . Average
4. . . Below Average
5. . . Poor

III. DESCRIPTION OF SAMPLING

Information was collected only for students enrolled between the years of 1952-1956. The poor school citizens were named at the end of the grading period on an official list out from the principal's office. The citizenship grades were ascertained by each of the six teachers who had a given student under her supervision at any period during the day. The teacher recorded this grade for citizenship on a specially provided chart. It is the consensus of the teachers in the Hildebran School that a student so well behaved that he gives no annoyance deserves an "A"; one who may occasionally need to be reprimanded receives a "B"; those who are unruly or insubordinate receive "C". The compiled grades on the chart were averaged by the principal who then released the list of those students having a citizenship grade of B- or less. The good school citizens were selected from the remaining students. The folders of the above thirty-eight poor school citizens were withdrawn from the files, and from the remaining folders in the files, the superior conduct students were selected by sampling.

Every fifth remaining folder was withdrawn until an equal number of good students was obtained to get samples of good students.

IV. STATISTICAL TREATMENT OF DATA

All calculations in this study were made from ungrouped data by the use of a Monroe Calculating Machine. At times, when there were no self-checks inherent in the procedure being used, calculations were checked twice for accuracy.

Among the statistical techniques applied were the mean, standard deviation, the significance of the difference of means, and the chi-square analysis.

The means and standard deviation were obtained for all variables of a quantitative nature. The formula used for the means is as follows:

$$M = \frac{\Sigma X}{N}$$

The formula applied for calculating the standard deviation is:

$$S = \sqrt{\frac{X^2 - \frac{(\Sigma X)^2}{N}}{N}}$$

When a situation arose containing two quantitative variables, the test for the significance of means was applied.

When variables are grouped in non-quantitative classifications, the chi-square test was used.

The standard error of difference of means formula is as follows:

$$SM_1 - M_2 = \sqrt{\frac{S_1^2}{N_1} + \frac{S_2^2}{N_2}}$$

The formula for determining the probability of difference of means is as follows:

$$t = \frac{M_1 - M_2}{SM_1 - M_2}$$

Chi-Square Analysis: Chi-square analysis was used in cases where it was necessary to compare frequencies for non-quantitative groups. In the chi-square test the difference between the observed frequencies and the frequencies expected by chance is squared and divided by the observed frequencies. The sum of the resulting quotients is the chi-square:

$$X^2 = \Sigma \frac{(f_e - f_o)^2}{f_o}$$

The null hypothesis was projected for the bases of the comparisons in the experiment. "The null hypothesis .. asserts that no true difference exists as between our two samples; that, in fact, these samples were randomly drawn from the same population, and differ only by accident of sampling."[13]

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[13]Henry E. Garrett, Statistics in Psychology and Education (New York: Longmans, Green, and Company, 1951, 3rd ed.) p. 232.

CHAPTER IV

TECHNIQUES AND RESULTS OF THE INDIVIDUAL EXPERIMENT

The purpose of this section of the investigation was to determine the relationship between conduct and a number of factors related to the school histories of the students in the study.

An hypothesis was projected which said that the two groups under consideration did not differ significantly on the factors on which they were compared. A test was made to determine if the observed means on each factor for the two groups differed greatly enough to reject the null hypothesis.

In choosing a level of significance the usual rule to follow is to avoid proving too easily what one wishes to prove. Therefore, when it is the purpose of the investigator to show a significant difference, a high level of significance should be adopted; when it is the purpose to find no significant difference, a low level of significance should be used. In this study there was no desire either to show or not to show differences, but to present findings in an unbiased manner. Therefore, a "compromise" level of .01 was used instead of the lower .05 or higher .001 levels.

In making comparisons between the two groups under consideration, the hypothesis was rejected or accepted at the

.01 level of significance; that is to say, if the observed difference between groups was large enough to occur by chance less than one time in one hundred, the hypothesis was rejected and the variance was assumed to be significant. On the other hand, if the observed difference would be expected to happen by chance more than one time in one hundred, the hypothesis would be accepted as stated and no true difference would be assumed.

The test for the significance of difference of means ("t" test) was employed to determine whether the two conduct groups varied significantly on eighteen selected variables grouped in quantitative distributions. This was done by computing the ratio of the difference between the observed means to the standard error of the difference ("t"test). The probability of this ratio's being significant at the .01 level was found from probability tables printed in many of the advanced textbooks on statistics.

The standard error of the difference between two independent factors (variables for poor and superior conduct groups) is equal to the square root of the sum of the squares of the standard errors of those factors. The difference in observed means was the mean of one group substracted from the mean of the other group.

In cases where data were arranged in non-quantitative

distribution, the chi-square test was applied to determine if the observed differences were significant. In making this analysis the difference between the expected and observed frequencies is squared and divided by the expected frequency in each case. The sum of all the quotients is the chi-square. The more closely the observed frequencies approximate the expected frequencies, the smaller the chi-square; however, the greater the observed and expected frequencies deviate, the larger the chi-square. As would be expected, the larger the chi-square the more chance that the observed difference is a significant difference. Levels of significance for the obtained chi-square are found by referring the ratio to probability tables.

The above statistical techniques were applied to determine the significance of difference between the superior and poor conduct groups on factors related to thier family, school, and personal social backgrounds. In Table I a comparison is made between the two groups on the number of siblings, the education of the father, the education of the mother, the academic grade average, the intelligence test scores, the number of books read per year, the average yearly absences, the favorable comments by teachers, and the unfavorable comments by teachers.

For example, in comparing the poor and superior conduct groups on the number of siblings in the family, the actual

TABLE I

PROBABILITY OF SIGNIFICANCE OF DIFFERENCE OF MEANS ON VARIABLES IN PERSONALITY TRAITS FOR POOR AND SUPERIOR CONDUCT GROUPS

FACTOR (Family and School)	Mean superior group	Mean poor groups	Difference in means	Standard deviation units	Probability of difference
Siblings	2.97	3.13	-.16	.30	.76
Education of Father ..	7.61	5.58	2.03	2.54	.01
Education of Mother ..	8.24	6.39	1.85	.26	.79
Academic Grade Av.....	6.05	3.53	2.52	6.30	.001
Intelligence Test Score	102.66	91.34	11.53	2.74	.006
No. Books Read Per Year	9.74	8.82	.92	3.52	.001
Av. Yearly Absences ...	5.05	4.92	.13	.14	.89
Favorable Comments	17.71	10.37	7.34	2.99	.02
Unfavorable Comments ...	5.16	11.76	-6.60	2.75	.01

difference of .16 between the mean number of siblings of 2.97 for the superior conduct group and of the 3.13 for the poor conduct group was only large enough to be significant at the .76 level; consequently, it may be concluded that a difference as large as that observed between the two groups is not a true difference, for such a variance would be expected to occur by chance more than seven times in ten.

The hypothesis that there is no significant difference in the education of the parents of the poor school citizen and the parents of the superior school citizen was projected. When the fathers of the two groups were compared, the fathers of the less desirable citizens were found to have an average of 5.58 years of formal education while the fathers of the group described as desirable school citizens averaged 7.61 years in school. The difference in means of 2.03 between the two groups compared was significant because such a variance would occur by chance once in a hundred cases.

Other comparisons in Table I revealed that there was a true difference between the two groups on academic grade averages, intelligence test scores, the number of books read per year, and the unfavorable comments received from teachers. On the other hand, the difference between the two groups on the education of the mother, the average yearly absences, and the favorable comments of teachers did not vary enough to be

significant at the .01 level.

Table II is devoted to comparing the two conduct groups on personality ratings given them by teachers. Only on one trait, cooperation, did the two groups have enough similarity in rating to produce a critical ratio that was greater than that needed to be significant at the .01 level. On courtesy, dependability, industriousness, initiative, leadership, maturity, and self-control ratings, the groups varied enough to be a significant difference at the .001 level. Also there was a significant difference between the groups on personal appearance, but, in this case, at the .01 level.

Table III presents the chi-square analysis to determine the significance of difference in the economic status of the poor and superior conduct students' families. In this test the difference between the observed frequencies and the expected frequencies for each group that was classified as being in low, moderate, good, and unknown status groups, was substracted for each cell. The difference for each cell was squared, and divided by the expected frequency. The sum of the quotients resulted in a chi-square of 8.98 which was less than the 11.34 needed for significance at the .01 level. It can be concluded, therefore, that the economic status of the two groups did not vary significantly.

The chi-square analysis test was employed to establish if there is any significant relationship between the church membership of the father and the poor or superior conduct

TABLE II

PROBABILITY OF SIGNIFICANCE OF DIFFERENCE OF MEANS ON VARIABLES IN PERSONALITY TRAITS FOR POOR AND SUPERIOR CONDUCT GROUPS

FACTOR (Personality Trait)	Mean superior group	Mean poor group	Difference in means	Standard deviation units	Probability of difference
Cooperation	2.26	2.97	-.71	1.00	.32
Courtesy	2.37	2.92	-.55	5.00	.001
Dependability	2.50	3.08	-.58	4.83	.001
Industriousness	2.37	3.21	-.84	6.00	.001
Initative	2.50	3.03	-.53	5.25	.001
Leadership	2.58	3.24	-.66	6.00	.001
Maturity	2.55	3.08	-.53	4.42	.001
Personal Appearance ..	2.42	3.00	-.58	2.76	.01
Self Control	2.47	3.11	-.64	5.82	.001

TABLE III

CHI-SQUARE TEST TO DETERMINE THE SIGNIFICANCE OF DIFFERENCE IN ECONOMIC STATUS OF POOR AND SUPERIOR CONDUCT STUDENTS

ECONOMIC STATUS	Conduct Groups		Total
	Poor	Superior	
Low	(2) 2	(2) 2	4
Moderate	(24) 30	(24) 18	48
Good	(11) 6	(11) 16	22
Unknown	(1) 0	(1) 2	2
Total	38	38	76

Chi-square = 8.98 < 11.34 = p = .01
Df = 3

rating of the student. In this case, as shown in Table IV, the result in chi-square of 8.49 was greater than the 6.64 needed at this confidence level of .01; consequently, it may be concluded that there is a difference between the poor conduct group in which eighteen fathers were non-church members as contrasted with only seven in the good conduct group.

When the mothers of the two groups were compared on the factor of church membership, it was discovered through the case histories of the students under consideration that ten mothers from the poor conduct group did not belong to a church and three from the superior group were non-church members. Table V shows the results obtained from employing the chi-square test to determine the significance of difference in the church membership of mothers of the two groups.

The difference between the marital status of the parents of the poor conduct group and the marital status of the parents of the pupils of the high conduct rating was tested for significance. The parents of all the students in the group in the study had been married, thereby excluding any illegitimate children in either group. There were three divorces in the family history of the poor conduct group, and only one in that of the high conduct group. Also six families had been broken by death in the low group as compared with four in the high group. The results of this analysis are shown in Table VI. The obtained chi-square of 2.05 is less than the 11.34 needed to be significant at the .01 level, showing

TABLE IV

CHI-SQUARE TEST TO DETERMINE THE SIGNIFICANCE OF DIFFERENCE IN CHURCH MEMBERSHIP OF FATHER OF POOF AND SUPERIOR CONDUCT STUDENTS

CHURCH MEMBERSHIP OF FATHER	Conduct Groups		Total
	Poor	Superior	
Yes	(25.5) 20	(25.5) 31	51
No	(12.5) 18	(12.5) 7	25
Total	38	38	76

Chi-square = 8.49 > 6.64 = p = .01
Df = 1

TABLE V

CHI-SQUARE TEST TO DETERMINE THE SIGNIFICANCE OF DIFFERENCE IN CHURCH MEMBERSHIP OF MOTHER OF POOR AND SUPERIOR CONDUCT STUDENTS

CHURCH MEMBERSHIP of Mother	Conduct Group		Total
	Poor	Superior	
Yes	(31.5) 28	(31.5) 35	63
No	(6.5) 10	(6.5) 3	13
Total	38	38	76

Chi-square = 6.38 < 6.64 = p = .01
Df = 1

TABLE VI

CHI-SQUARE TEST TO DETERMINE THE SIGNIFICANCE OF DIFFERENCE IN MARITAL STATUS OF PARENTS OF POOR AND SUPERIOR CONDUCT STUDENTS

MARITAL STATUS	Conduct Group		Total
	Poor	Superior	
Single	(0) 0	(0) 0	0
Married	(30.91) 29	(30.91) 33	61
Divorced.....	(2.03) 3	(2.03) 1	4
Widowed	(5.07) 6	(5.07) 4	10
Total	38	38	75

Chi-square = 2.05<11.34 = p = .01
Df = 3

that there was no true difference of the marital status of the parents of the students under consideration.

Further comparisons were observed between other factors pertaining to the parents of the students studied. In order to determine if there is any true difference between the fact that a father or mother is deceased, a chi-square test was employed to determine the significance of difference. Tables VII and VIII show the results. Five fathers were deceased within the poor conduct group as compared with two in the other group, while only one mother was deceased in the first group as compared with two in the superior conduct group. A chi-square of 1.71, which is much less than the 6.64 needed to be significant at the .01 level is shown in Table VII. Statistics for the mothers are in Table 8. There is a very low chi-square of .52 while as much as 6.64 is needed to be significant at this confidence level of .01; therefore there is no true difference in the fact that the parents were deceased or living in the study of the students' conduct rating.

When the two conduct groups were compared as to their participation in extra-curricular athletics, more of the poor conduct students were participants. Twenty-one of these students were athletes as compared to only thirteen of the superior group. In spite of the difference in number of participants, when the calculations were completed, as Table IX

TABLE VII

CHI-SQUARE TEST TO DETERMINE THE SIGNIFICANCE OF DIFFERENCE IN DECEASED FATHER OF POOR AND SUPERIOR CONDUCT STUDENTS

DECEASED FATHER	Conduct Group		Total
	Poor	Superior	
Yes	(3.5) 5	(3.5) 2	7
No	(34.5) 33	(34.5) 36	69
Total	38	38	76

Chi-square = 1.70 < 6.64 = p = .01
Df = 1

TABLE VIII

CHI-SQUARE TEST TO DETERMINE THE SIGNIFICANCE OF DIFFERENCE IN DECEASED MOTHER OF POOR AND SUPERIOR CONDUCT STUDENTS

DECEASED MOTHER	Conduct Group		Total
	Poor	Superior	
Yes	(1.5) 1	(1.5) 2	3
No	(36.5) 37	(36.5) 36	73
Total	38	38	76

Chi-square = .52 < 6.64 = p = .01
Df = 1

TABLE IX

CHI-SQUARE TEST TO DETERMINE THE SIGNIFICANCE OF DIFFERENCE IN EXTRA-CURRICULAR ATHLETIC PARTICIPATION BY POOR AND SUPERIOR STUDENTS

EXTRA-CURRICULAR ATHLETIC PARTICIPATION	Conduct Group		Total
	Poor	Superior	
Participant	(17) 21	(17) 13	34
Non-Participant	(21) 17	(21) 25	42
Total	38	38	76

$$\text{Chi-square}_{Df = 1} = 3.57 < 6.64 = p = .01$$

shows, the resulting chi-square was only 3.57 while 6.64 was needed to be significant at the .01 level of confidence.

In order to determine if the conduct ratings received by the students in the Hildebran High School were related to participation in non-athletic extra-curricular activities, a chi-square analysis was made. Table X shows that only seven of the poor conduct group participated in extra-curricular activities, excluding athletics, while thirty-one of this group were non-participants. When these observed frequencies were compared with frequencies that would be expected by chance, a chi-square of 44.10 was calculated, which proved to be significant at the .01 level of confidence.

TABLE X

CHI-SQUARE TEST TO DETERMINE THE SIGNIFICANCE OF DIFFERENCE IN PARTICIPATION IN NON-ATHLETIC EXTRA-CURRICULAR ACTIVITIES OF POOR AND SUPERIOR CONDUCT STUDENTS

OTHER EXTRA-CURRICULAR PARTICIPATION	Conduct group		Total
	Poor	Superior	
Participant	(18.5) (17.5)	(18.5) 30	37
Non-participant	(19.5) 31	(19.5) 8	39
Total	38	38	76

Chi-square = 44.10 > 6.64 = p = .01
Df = 1

SUMMARY

Seventy-six students of the Hildebran High School were used as subjects to study the relationship between certain factors in the home, the school, and in their personality with their rating in school citizenship. This phase of the study had three catagories of factors from which the comparisons were made:

1. Family factors: economic status of parents, the number of siblings, the education of the father and the mother, the church membership of the father and the mother, the marital status of the parents, and the fact of a living or deceased father and mother.

2. Personal and social assets: cooperation, courtesy, dependability, industriousness, initative, leadership, maturity, personal appearance, and self-control.

3. School factors: academic grade average, intelligence score, average number of books read per year, the extra-curricular activities in which the students participated, and the comments made by former teachers.

Of the seventy-six students, equal numbers were chosen for the two classifications included in this investigation: thirty-eight in the group called "superior" school citizens, and thirty-eight in the other group called "poor" school citizens by virtue of their low rating in citizenship at the end of the various school grading periods. The aforementioned factors relating to home, personality, and school were analyzed

for each group.

When the relationship between the twenty-six variables and the citizenship grade was analyzed, fifteen variables were found to be significant.

In the grouping of family background factors, only two were found to be significantly different. When the analysis was completed concerning eighteen fathers of the poor group who were non-church members, as contrasted with only seven fathers in the superior group who were not church members, the resulting chi-square of 8.49 was obtained, which was considerably greather than the 6.64 needed to be significant at the .01 level. Also significant is the fact that the fathers of this group were not as well educated as the fathers of the superior group were.

Significant relationships were noted between eight of the nine variables in the category of personal and social assets. A range of standard deviation units from 1.00 to 6.00 resulted from the comparisons of these factors. In the realm of cooperation very little difference was noted between the two groups; there was some variance discovered in the personal appearance of the two groups; however, great variations were noted in the other seven factors included in this section of the study. In descending order, these factors are industriousness, leadership, self-control, initative, courtesy, dependability, and maturity.

Among the factors directly related to the students' school life, four proved to be significantly different for the two groups of students under consideration. The greatest difference was in the participation in non-athletic extra-curricular activities. The students who had difficulty in conduct or citizenship were those who rarely participated in the various extra activities of the school, excluding athletics. In the athletic phase of activities, twenty-one of the poor group were athletes as compared to thirteen of the superior conduct group; in non-athletic activities only seven of the poor conduct group were participants while thirty of the superior conduct group were active in various activities of the school. The difference was so great in the comparison of the non-athletic groups that the results of the analysis showed a chi-square of 44.10 while only 6.64 was needed to be significant at the .01 level.

A significant difference was noted also for academic grade averages. In the superior conduct group the mean grade average was better than a "B" while that of the poor conduct group sank to a point half-way between "C" and "C+". Another factor in the school life category which proved significantly different was the number of books read per year. The poor conduct students read fewer than nine books per year as compared to almost ten for the superior students. From the permanent records of the students it was noted also that as the student from either group progressed from one grade to another, he

tended to read fewer books.

Another variable is closely related to the fact that these students were not achieving as would normally be expected. It is the score made on the intelligence tests. The poor conduct group had a lower score than the other group. The mean for the superior group was 102.66 while the poor group sank to a low of 91.32.

Also varying in a significant manner are the unfavorable comments which teachers have made concerning these persons whose conduct is anti-social or unacceptable in the school in which the study was made.

CHAPTER V

SUMMARY AND CONCLUSIONS

SUMMARY

The purpose of this investigation was to discover from a selected group of variable factors the ones most significant in their relationship to high school students' grades in citizenship. In the primary phase of the study, the problem was to study a sampling of students in the Hildebran High School of Burke County, North Carolina who had been rated by their teachers as poor or superior in their school citizenship.

Students enrolled in the high school between the years of 1952 and 1956 were classified according to their citizenship grades as poor (N=38) or superior (N=38). These selections were made by sampling. The poor conduct group were named on a list released from the office of the school principal at the end of grading periods from ratings given them by their classroom teachers.

A total of twenty-six variables was used in the various phases of this study. The data concerning these variables were found recorded on the cumulative folders (permanent school records) of the students under consideration in the experiment. These factors were grouped into three categories: (1) the family background: the economic status of the family, the number of siblings the student had, the education of the

father and of the mother, the marital status of the parents, the fact that a parent is deceased or living, and the fact of the parents' maintaining membership in a church; (2) the personal and social assets: cooperation, courtesy, dependability, industriousness, initiative, leadership, maturity, personal appearance, and self-control; (3) the school factors: academic grade, intelligence test score, the number of books read, the number of yearly absences, participation in both athletic and non-athletic extra-curricular activities, and comments made by former teachers of the students.

The above information was recorded on a duplicated form for each student included in the experiment. The calculations were made then made from ungrouped data by the use of a calculating machine. Many of the calculations were checked twice for accuracy when no self-check was inherent in the procedure employed.

The statistical techniques used for all variables grouped in a quantitative distribution were the mean and the standard deviation. The formula for the mean is:

$$M = \frac{\Sigma X}{N}$$

The formula for obtaining the standard deviation is:

$$S = \sqrt{\frac{X^2 - \frac{(\Sigma X)^2}{N}}{N}}$$

The test for the significance of the difference of means was used when there appeared two quantitative variables:

$$t = \frac{M_1 - M_2}{SM_1 - M_2}$$

The formula for the standard error of difference of means is:

$$SM_1 - M_2 = \sqrt{\frac{S_1^2}{N_1} + \frac{S_2^2}{N_2}}$$

The chi-square test is used in cases when variables are grouped in non-quantitative classifications:

$$X = \sum \frac{(fe - fo)^2}{fo}$$

The null hypothesis was used which asserts that there is no true difference between the groups in the comparative study and that their differences occurred only by accident of sampling. This hypothesis was retained in more than half of the variable factors used in the study. Eleven of the twenty-six factors show a significant difference between the two groups under consideration.

From the family category of factors, the poor conduct group differed significantly from the superior group in the number of fathers who were church members. The comparison showed that eighteen fathers of students whose conduct was not commendable were non-church members as compared to only seven in the superior conduct group. Also showing a signi-

ficant difference is the number of years of education these fathers have had. The fathers of the good conduct group averaged two years and a half more of formal education.

In the analysis of the personal and social assets, eight of the nine factors were significantly different for the two groups. The greatest difference was noted in industriousness and leadership, while courtesy, initiative, and self-control followed closely. Also different were dependability, maturity, and personal appearance. Only cooperation was found to be not significantly different.

In the third group of factors, that of school activities, the null hypothesis was rejected in the intelligence test scores, in the average academic grades, in the number of books read, in the unfavorable comments by teachers, and in the participation in extra-curricular activities of a non-athletic nature.

CONCLUSIONS AND IMPLICATIONS

The findings in this investigation should be valuable to those school personel who are concerned for the child and not for his behavior alone. These experiments and investigations can be used for the bases for a better understanding of the behavior of the boys and girls.

The relationships examined in this study are not the only causes which modify a person's behavior; however, they are an introduction to three important sources of experiences

which shape a student's pattern of behavior: the family, the school, and the personal and social assets. As has been pointed out, a child's experience in his family and social group play a large role in shaping his ideas of what is right, what is wrong, and how people should behave.

The results of this experiment suggest very strongly that the example of the father is a very potent factor in the behavior of the child, for in the majority of the cases studied in which a father did not set a proper example in education and religion before his children, these offspring tended to become behavior problems. This was by far more significant than the fact of his economic status.

Due to the observed differences in the realm of various school activities, there is a strong indication that a student who is a behavior problem does not occupy his time with worthwhile activities as consistently as one whose behavior is socially acceptable. He does not read as many books per year; he does not participate in as many of the very fine extracurricular activities; and, finally, he does not have as high an IQ and does not achieve as well academically as his fellows.

The personality traits of the two groups differed significantly in every factor considered, with the exception of cooperation. Pupils with elevated citizenship ratings scored consistently higher in the estimation of their teachers on the various personal and social assets.

The experiment further suggests that teachers need to inquire into the reasons for a student's anti-social behavior; that the child not be frowned upon for his anger or violence and merely required to lay aside these behavior patterns, but that the reason for his emotions or behavior be sought after.

RECOMMENDATIONS FOR FURTHER STUDY

Further experiments into the reasons and causes of group behavior should prove valuable to other teachers who should like to undertake similar studies to understand why particular students have behavior problems in a given situation. Some specific suggestions follow:

(1) Determine the effect on behavior of students when they are graded on their ability to achieve.

(2) Study the relationship between attitude of teachers toward students and their conduct in school.

(3) Determine the effect of a well-rounded intramural athletic program on the incident of behavior problems.

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APPENDIX

Name _____ Superior Conduct ___ Low Conduct ___

FAMILY	ASSETS	SCHOOL
Economic Status: low__ moderate__ good __ unknown__	Cooperation ____	Academic grade average _____
Siblings: No.____	Courtesy _____	Intelligence score: Gamma IQ _____
Education: Father No. of years ____	Dependability ___	Books read: average per year ___
Education: Mother No. of years ___	Industriousness ___	Attendance: average yearly absences
Marital Status: Single ___ Married ___ Divorced ___ Widowed ___	Initiative ____	Extra-curricular athletic: Participant: ___ Non-participant:___
Deceased Father: Yes ___ No ___	Leadership ____	Other extra-curricular activities: Participant: ____ Non-participant ___
Deceased Mother: Yes ___ No ___	Maturity _____	Comments by teachers: Favorable ____ Unfavorable ___
Church Membership: Father Yes ___ No ___	Personal appearance ____	
Church Membership: Mother Yes ___ No ___	Self-control ____	

INDIVIDUAL PUPIL INFORMATION SHEET