A STUDY OF THE RELATIONSHIP OF SOCIAL MATURITY TO THE ACHIEVEMENT IN THE FIRST GRADE

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In Partial Fulfillment of the Requirements for the Degree Master of Arts

by

Jessie Virginia Lambert

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# A STUDY OF THE RELATIONSHIP OF SOCIAL MATURITY TO ACHIEVEMENT IN THE FIRST GRADE

by

# Jessie Virginia Lambert

Approved by:

Committee Chair hesis an 0 Advisory

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# TABLE OF CONTENTS

										PAGE
TON		• •		•	• •		•	•	•	l
blem					•				•	1
ment of t	he prob	lem						•	•	1
tance of	the stu	dy .			•		•		•	1
re and So	urces o	f Dat	ta.		•				•	1
ents Used								•		3
ineland S	ocial M	aturi	ity :	Sca	le		•	•	•	3
alifornia	Short-	Form	Tes	t c	of 1	len	ta	L		
urity .									•	4
etropolit	an Achi	eveme	ent '	Tes	st .					5
ions of t	he Stud	у.					•			6
ions of T	erms .									6
astic ach	ievemen	t.						•		6
lly matur	e group									7
lly immat	ure gro	up.								7
1 quotien	t									7
ligence q	uotient				•					7
vement qu	otient									7
RELATED	LITERAT	URE								8
Finding	Positiv	e Con	rrel	ati	on	Be	twe	eer	ı	
1 Maturit	y and S	chol	asti	c						
										8
	blem ment of t tance of re and So ents Used ineland S alifornia urity . etropolit ions of t ions of T astic ach ly matur ly immat ly immat ly immat figence q vement qu RELATED Finding l Maturit	blem	blem	blem	blem	blem	blem ment of the problem tance of the study re and Sources of Data ents Used ineland Social Maturity Scale . alifornia Short-Form Test of Men surity etropolitan Achievement Test ions of the Study ions of the Study astic achievement lly mature group lly immature group lly immature group etropolient ligence quotient reaction of Perms finding Positive Correlation Be l Maturity and Scholastic	blem	ment of the problem tance of the study	blem

# CHAPTER

	Studies Finding Negative Correlation Between	
	Social Maturity and Scholastic	
	Achievement	14
III.	FINDINGS OF THE STUDY	18
	Division of the Children into Two Groups	18
	Scores obtained by the first grade children	
	of Stanfield School on the Vineland Social	
	Maturity Scale	19
	Social ages of the first grade children of	
	Stanfield School derived from the Vine-	
	land Social Maturity Scale	19
	Social quotients of the two groups	22
	Comparison of the Intelligence Quotients of	
	the Two Groups	22
	Comparison of the Two Groups as to Grade	
	Equivalents, Age Equivalents, and	
	Achievement Quotients	24
	Grade equivalents and age equivalents of the	
	first grade children of Stanfield	
	School	27
	Achievement quotients of the first grade	
	children of Stanfield School	27
	Correlation of the Social Quotients, Intelli-	
	gence Quotients, and Achievement	
	Quotients	28

PAGE

CHAPTE	R																			PAGE
IV.	SUMMARY	AND	C	)MC	CLI	JS	IOI	NS	•	•	•		•		•		•	•	•	31
	Summa	ry .	•	•	•	•	•	•			•	•	•		•	•	•	•	•	31
	Conclu	usio	ns	•	•	•	•		•		•	•	•	•				•	•	32
BIBLIC	GRAPHY .		•		•		•	•			•	•	•	•			•	•		34

v

# LIST OF TABLES

		in the second
TABLE		PAGE
I.	Scores and Social Ages of the First Grade	
	Children of Stanfield School Derived from	
	the Vineland Social Maturity Scale	20
II.	Social Quotients of the First Grade Children	
	of Stanfield School	21
III.	Intelligence Quotients of the First Grade	
	Children of Stanfield School	23
IV.	Grade Equivalents and Age Equivalents of the	
	First Grade Children of Stanfield School	``
	Derived from the Metropolitan Test	25
v.	Achievement Quotients of the First Grade	
	Children of Stanfield School	26
VI.	Medians, Means, and Standard Deviations for	
	the Vineland Social Maturity Scale,	
	California Test of Mental Maturity, and Metro-	•
	politan Achievement Test Given to First Grade	
	Children at Stanfield School	29

#### CHAPTER I

#### INTRODUCTION

### I. THE PROBLEM

<u>Statement of the problem</u>. It was the purpose of this study to determine the relationship between social maturity and scholastic achievement of pupils in the first grade. Specifically, the objective was to find the answer to one question: Did the first grade children at Stanfield School who were socially mature tend toward higher scholastic achievement than those who were not socially mature?

<u>Importance of the study</u>. The question of the relationship between social maturity and scholastic achievement seemed to the writer to be sufficiently important and controversial to merit objective study.

II. PROCEDURE AND SOURCES OF DATA

This study was made at Stanfield School. Sixty first grade pupils were used as subjects.

The children were rated by the Vineland Social Maturity Scale. On the basis of scores made, they were divided into two groups, "the socially mature group" and the "socially immature group." Questionable cases were not included in the study. A social age and social quotient for each child were derived from norms included in the manual of directions for the Vineland Social Maturity Scale.

After the children were divided into two groups, they were given the California Short-Form Test of Mental Maturity. This test provided an intelligence quotient for each child.

The achievement of the two groups was measured by the Metropolitan Achievement Test. From this test a grade equivalent, age equivalent, and achievement quotient were obtained.

The relationship between the social maturity and the scholastic achievement of the pupils was found. The relationships between (1) social maturity and intelligence and (2) achievement and intelligence were found also. Means, medians, and standard deviations for the social quotients, intelligence quotients, and achievement quotients were found.

Correlations of the quotients derived from scores made on the Vineland Social Maturity Scale with those obtained from the California Short-Form Test of Mental Maturity and the Metropolitan Achievement Test were computed by the Pearson Product-Moment Coefficient of Correlation. This procedure was carried out for each group separately. The groups were combined and a correlation of the achievement quotients and intelligence quotients was computed for the two groups in combination.

#### III. INSTRUMENTS USED

<u>The Vineland Social Maturity Scale</u>. This scale was designed by Edgar A. Doll.<sup>1</sup> It is a point and age scale combination of one hundred and seventeen items of performances in respect to which children show a progressive capacity for looking after themselves and for participating in those activities which lead toward independence as adults. The functions tested are self-help, self-direction, locomotion, occupation, communication, and social relations. The total score was obtained by adding to basal score (the highest of all the continuous pluses) the additional scattered credits beyond the basal score. The score was expressed as a total number of items passed. There was a table in the manual of directions for the Vineland Social Maturity Scale for converting the score into social age.

The validity of the Vineland Social Maturity Scale has been repeatedly investigated. Item validity was indicated by the standard deviations of the normative item curves, by relation to chronological age, and by similar curves for feeble-minded subjects.

l Edgar A. Doll, <u>Vineland Social Maturity Scale</u>, Educational Test Bureau, Educational Publishers, Inc., Nashville, Tennessee, 1947.

Reliability was studied and reported by Doll<sup>2</sup> for 123 repeated examinations given after lapses of one day to nine months to residents of the Vineland Training School. The correlation obtained was .92 with the probable error amounting to about one-half year.

Watson<sup>3</sup> reported that, with Fels Research Institute children used as subjects, several measures of reliability were calculated. The coefficients of stability were respectively .66, .63, and .42 after six, nine, and twelve months for thirty-one to fifty-one cases. With twenty cases, a coefficient of .85 was found.

The California Short-Form Test of Mental Maturity. The authors of this test were Elizabeth T. Sullivan, Willis W. Clark, and Ernest W. Tiegs.<sup>4</sup> The test measured mental development or mental capacity in four areas: (1) spatial relationships; (2) logical reasoning; (3) numerical reasoning; and (4) verbal concepts. Two summary scores, language

2<sub>Ibid</sub>.

<sup>3</sup>Robert L. Watson, "The Vineland Social Maturity Scale," Chapter II, <u>The Clinical Method in Psychology</u> (New York: Harper and Brothers, 1947), pp. 319-333.

<sup>4</sup>Elizabeth T. Sullivan, Willis W. Clark, and Ernest W. Tiegs, <u>California Short-Form Test of Mental Maturity</u>, California Test Bureau, 5916 Hollywood Boulevard, Los Angeles 28, California, 1957.

and non-language, together with the four factor scores, produced the mental age from which the intelligence quotient was derived. Reliability coefficients given in the manual of directions for the California Short-Form Test of Mental Maturity were .87 and .92. The first reliability coefficient was computed for all the primary grades. These were computed by the split-halves method and corrected by the Spearman Brown formula.

In reviewing the comparison of the California Short-Form Test of Mental Maturity with the Wechsler Intelligence Scale for Children, the Stanford-Binet, and the Easel Age Scale, the Short-Form correlated as well with the individually administered tests as it did with the other group tests, and sometimes even better. Some users have reported a correlation of .88 with the Stanford-Binet; 84.5 with the Wechsler Intelligence Scale for Children; and .81 with the Easel Age Scale.

The Metropolitan Achievement Test. This test was devised by Gertrude Hildreth.<sup>5</sup> It contained four subtests and yielded four scores: (1) reading-word picture; (2) reading-word recognition; (3) reading-word meaning; and (4) numbers. The average of the subtest scores provided a measure

<sup>&</sup>lt;sup>5</sup>Gertrude Hildreth, <u>Metropolitan Achievement Test</u>, World Book Company, Yonkers-on-Hudson, New York, 1947.

of average achievement for the individual pupil.

Separate materials for each form gave directions for scoring, other materials at each level provided directions for administering the test, and the several types of norms available were published in separate booklets.

According to Woodrow,<sup>6</sup> the component tests in the batteries appeared highly reliable. Corrected split-half reliability coefficients for appropriate single-grade groups varied from .79 to .97 with a median of .91.

#### IV. LIMITATIONS OF THE STUDY

This study was limited to sixty first grade children at Stanfield School. It was further limited to three factors. The three factors taken into consideration were social maturity, intelligence, and achievement.

## V. DEFINITIONS OF TERMS

<u>Scholastic achievement</u>. In this study scholastic achievement was defined as the level of achievement as indicated by scores on the Metropolitan Achievement Test in the areas of reading and arithmetic.

6 Herbert Woodrow, "Intelligence and Improvement in School Subjects," Journal of Educational Psychology, 36: 155-166, March, 1945.

<u>Socially mature group</u>. The socially mature group was defined as those children who made the high scores on the Vineland Social Maturity Scale.

<u>Socially immature group</u>. The socially immature group was defined as those children who made the low scores on the Vineland Social Maturity Scale.

Social quotient. The social quotient was a ratio of social age to chronological age.

Intelligence quotient. The intelligence quotient was a ratio of mental age to chronological age.

Achievement <u>quotient</u>. The achievement quotient was a ratio of achievement age equivalent to chronological age.

### CHAPTER II

## REVIEW OF RELATED LITERATURE

The literature revealed that most of the research that has been done on social maturity and scholastic achievement applies to age levels other than that of the primary grade child. It was also noted that there are many differences of opinion regarding the relationship of social maturity to scholastic achievement. In this chapter the following divisions will be used in reviewing the literature: (1) Studies finding positive correlation between social maturity and scholastic achievement. (2) Studies finding negative correlation between social maturity and scholastic achievement.

# I. STUDIES FINDING POSITIVE CORRELATION BETWEEN SOCIAL MATURITY AND SCHOLASTIC ACHIEVEMENT

In a study of forty-five children who were tested in both the first and fourth grades, Solomon<sup>1</sup> emphasized that many aspects of personality exert an influence on achievement. She found that the successful students tended to

<sup>&</sup>lt;sup>1</sup>Ruth H. Solomon, "Personality Adjustment to Reading Success and Failure," <u>Clinical Studies in Reading II</u> (Supplementary Educational Monographs No. 77. Chicago: University of Chicago, 1953), pp. 64-82.

emphasize the abstract or theoretical in their approach to problems, while the less successful gave more attention to unimportant details. The successful group also exhibited greater understanding of their environment. According to this study, children who were successful in scholastic achievement were as a rule well-adjusted socially, emotionally, and intellectually.

A study made by Leichty<sup>2</sup> also pointed to the importance of the personality of the individual to scholastic achievement. In using the Rorschach Test on nine- and tenyear-old children, she found that eighty-nine per cent of those who were poor or failing in reading looked at the white space background instead of the black ink spot. This was considered a sign of unconscious resistance to fitting into the required pattern of behavior. Thus it was concluded that those who were poor or failing were not welladjusted socially.

Stagner,<sup>3</sup> reviewing a number of previous studies in 1933, found slight tendencies for students with higher

<sup>&</sup>lt;sup>2</sup>Mary M. Leichty, "Difficulty in Reading May Be Due to Individualism," <u>Science News Letter</u>, 65:292, May 8, 1954.

<sup>&</sup>lt;sup>3</sup>Ruth Stagner, "The Relationship of Personality to Academic Aptitude and Achievement," <u>Journal of Educational</u> Research, 26:648-660, May, 1933.

scores on the introversion, dominance, and self-sufficiency section of the Berneuter Personality Inventory to obtain higher grade averages than those with lower scores.

Gough<sup>4</sup> found low but consistent correlations between the Brown Personality Inventory and five achievement tests in a group of sixth-grade children. The tendency was for the socially immature pupils to secure lower achievement test scores.

Schofield<sup>5</sup> made an attempt to investigate the relationship between personality tendencies, as revealed in a freshman year Minnesota Multiphasic Personality Inventory, and academic performance. The analyses were based on data for eighty-three students who entered the University of Minnesota Medical School in 1946. When the average profile of upper quarter students was compared with that of lower quarter students, certain of the scales revealed reliable mean differences between the two groups. In general, the low quarter students revealed a tendency toward greater neuroticism and defection in interpersonal and social relationships. It was concluded that students who show both a

<sup>&</sup>lt;sup>4</sup>Harrison Gough, "The Relationship of Socio-economic Status to Personality Inventory Achievement Test Scores," Journal of Educational Psychology, 37:527-540, December, 1946.

<sup>&</sup>lt;sup>5</sup>William Schofield, "A Study of Medical Students with the M. M. P. I. II Personality and Academic Success," <u>Journal</u> of <u>Applied Psychology</u>, 37:47-52, February, 1953.

restricted scholastic promise and marked deviation would be particularly poor academic risks.

Young<sup>6</sup> reported that each member of the freshman class at Colgate University was given a rating sheet and was asked to indicate his acquaintance with and liking for every other member of the class of about three hundred men. The students who had higher grade point averages were more widely known and were well liked. This suggested that the superior students were also better adjusted socially.

Eckert<sup>7</sup> discovered a slight trend for the socially mature students to make higher achievement scores. There was also a tendency for the better students to hold more liberal social attitudes. It was concluded that the superior students had an outlook on life which differed from that of the lower achieving students.

According to Burgess,<sup>8</sup> from a population of four hundred and ninety-two freshman engineering students, two sample groups of twenty students each were selected for study. The

<sup>&</sup>lt;sup>6</sup>C. W. Young, "Scholarship and Social Adjustment," <u>School and Society</u>, 43:607-608, May 2, 1936.

<sup>&</sup>lt;sup>7</sup>Ruth Eckert, "Analyzing the Superior College Student," <u>School and Society</u>, 41:69-72, January 12, 1935.

<sup>&</sup>lt;sup>8</sup> Elva Burgess, "Personality Factors of Over-and-Under-Achievers in Engineering," <u>Journal of Educational</u> <u>Psychology</u>, 47:89-98, February, 1956.

grade-point average earned by each of the students during the fall of 1951 was obtained from the office of the college registrar. The mean and standard deviation were computed. The twenty students whose earned grade-point average deviated most above their predicted grades became one criterion group called the "over-achievers." The other group, the "under-achievers," included the twenty students whose actual grades showed the greatest deviation below their predicted grade-point average. A battery of six tests, as follows, was administered to the members of both groups:

- 1. The Rorschach Technique
- 2. The Minnesota Multiphasic Personality Inventory
- 3. The Murray Thematic Appreciation Test
- 4. The Rosenzweig Picture Frustration Study
- 5. The Strong Vocational Interest Blank
- 6. The College-Inventory of Academic Adjustment

It was found that the over-achievers showed common personality factors which characterized them as a group and distinguished them from the group of under-achievers. The superior group tended, in general, to be better adjusted to the school situation.

Engel<sup>9</sup> reported that the pupils in Detroit were given

<sup>&</sup>lt;sup>9</sup>Anna Engel, "Characteristic and Significant Differences Between X and Z Pupils in the Detroit Public Schools," <u>Elementary School Journal</u>, 24:747-754, June, 1924.

the Detroit First Grade Intelligence Test before entering school. On the basis of this examination, the children were placed in an X section if they received a rating of A or B; in a Y section if they had a rating of C+, C, or C-; and in a Z section if their rating was D or E. The X group contained approximately the highest twenty per cent; the Z group, the lowest twenty per cent. The classification was subject to correction in case a child had not done justice to himself on the test.

In addition to the mental differences, social differences were also found in the two groups. It became evident that the Z group, dull children, were less socially mature than the X group, the bright children.

The results of a study which was carried out in 1938-1939 by the Committee on Student Organizations of the faculty of the University of New Hampshire were given by Alexander and Woodruff.<sup>10</sup> The committee undertook a survey of the recreational and social life of the freshman class. The information for the survey was obtained from the high school record, academic record for the first semester, expectancy performance ratings on social development, and a questionnaire answered by the students. The members of the freshman

<sup>10</sup> Norman Alexander and Ruth Woodruff, "Determinants of College Success," Journal of Higher Education, 11:479-485, December, 1940.

class were divided into five groups on the basis of academic record, freshman test scores, expectancy performance, and social development.

The correlation of a high academic record in college and social development was pronounced. Seventy-eight per cent of those in the highest academic group fell in the higher social development group, and none placed in the lower social development group. The remaining twenty-two per cent were in the average group. Only four per cent of the lowest academic group ranked in the two higher groups in regard to social development. Student organizations commanded a greater share of the time and interest of those of higher intelligence ratings than others. Those with low scores showed a greater tendency to avoid all organization work. This study indicated that a normal social life usually accompanies good scholastic accomplishment.

# II. STUDIES FINDING NEGATIVE CORRELATION BETWEEN SOCIAL MATURITY AND SCHOLASTIC ACHIEVEMENT

A study was undertaken by George Griffiths<sup>11</sup> with freshman men at Ohio University to discover if there was

<sup>11</sup> George Griffiths, "The Relationship Between Scholastic Achievement and Personality Adjustment of Men College Students," Journal of Applied Psychology, 29:360-367, October, 1945.

any relationship between scholastic achievement and personality adjustment. The measure of scholastic achievement used was the first semester point-hour ratio. The Bell Adjustment Inventory was used as a measure of personality adjustment. It was concluded that:

- Men in scholastic difficulty, having been placed on academic probation, were not inferior in personality adjustment scores to men of superior college ability.
- 2. Men students with brilliant records were no better adjusted in personality than men of lowest academic achievement.
- 3. The differences were small but consistent.

Owens and Johnson<sup>12</sup> made an investigation to identify, from responses to standardized personality inventories, some distinctive characteristics and modes of adjustment of a sample of collegiate under-achievers. The subjects were one hundred and sixty-four male freshmen in engineering at Iowa State College. Fifty of them were designated as underachievers, sixty as normal-achievers, and fifty-four as over-achievers. The personality tests or questionnaires used were as follows:

<sup>12</sup>William Owens and Wilma Johnson, "Some Measured Personality Traits of Collegiate Under-Achievers," Journal of Educational Psychology, 40:41-44, January, 1949.

1. Minnesota Multiphasic Personality Inventory

2. Minnesota Personality Scale of Darly and McNamara

3. A personal check-list of twenty-five items

Almost half of the items dealt directly with social adjustment. On these items the under-achievers uniformly and without exception gave better adjusted responses than the normal or over-achievers. It was concluded that these students were probably too socially active to spend large amounts of time in the study essential to academic achievement. Their slight tendencies to depression, worry, and psychic tension were believed to be consequences of poor achievement rather than causes contributing to it.

A study was carried out by Altus<sup>13</sup> using the Minnesota Multiphasic Personality Inventory. His subjects were an over-achieving group and an under-achieving group. The correlation of the sixty social adjustment items on the Minnesota Multiphasic Personality Inventory with four psychology tests was .39. The correlation with a measure of verbal aptitude was .15. The tendency was for the under-achieving group to give responses which indicated better adjustment.

In most of the literature reviewed, the socially mature students attained higher scholastic achievement. All

<sup>13</sup>W. D. Altus, "A College Achiever and Non-Achiever Scale for the Minnesota Multiphasic Personality Inventory," Journal of Applied Psychology, 32:385-397, August, 1948.

the studies in which the poor achievers had better social ratings than the superior students were on the college level.

The writer found that very little research has been done on the primary grade level. In all the studies concerned with younger children, the socially mature pupils attained higher scholastic achievement than was attained by the socially immature group.

One investigator found that students with low scholastic achievement tended to avoid social activities. Another concluded that the under-achievers were too socially active to spend time in the study necessary to academic achievement.

## CHAPTER III

## FINDINGS OF THE STUDY

This study was made in the first grades of Stanfield School in an attempt to determine whether or not the children who were socially mature tended toward higher scholastic achievement than that attained by the socially immature group. Sixty students were used as subjects. It is the purpose of this chapter to discuss the findings of the study in the following divisions:

- Division of the children into two groups, the socially mature group and the socially immature group.
- Comparison of the intelligence quotients of the two groups.
- Comparison of the grade equivalents, age equivalents, and achievement quotients of the two groups.
- 4. Correlation of social quotients, intelligence quotients, and achievement quotients.
  - I. DIVISION OF THE CHILDREN INTO TWO GROUPS

The teachers rated each of the first grade pupils by the Vineland Social Maturity Scale. This scale contained one hundred and seventeen items of performance. The functions tested were self-help, self-direction, locomotion, occupation, communication, and social relations. The thirty students who made the highest scores were placed in the socially mature group. The other group, the socially immature group, included the thirty children who ranked lowest on the Vineland Social Maturity Scale. Questionable cases were not included in the study. The data obtained from the Vineland Social Maturity Scale are given in Tables I and II.

<u>Scores obtained by the first grade children of Stan-</u> <u>field School on the Vineland Social Maturity Scale</u>. The scores were expressed as the total number of items successfully performed with consideration given to items which were in a changing or emergent state. The socially mature children had scores ranging from 61.0 to 68.0. The scores of the children in the socially immature group ranged from 55.0 to 60.0.

Social ages of the first grade children of Stanfield School derived from the Vineland Social Maturity Scale. The raw scores were converted to social ages by a table in the manual of directions for the Vineland Social Maturity Scale. A wide difference in the social ages of the children was found. In the socially mature group, the social ages ranged from six years to seven years six months, while in the immature group the range was from four years eight months

# TABLE I

SCORES	AND	SOCIAL	AGES	OF	THE	FIRST	GRADE	CHILDREN	
	OF	STANFIEI	D SCI	IOOI	L DEL	RIVED	FROM TH	IE	
		VINELANI	SOC:	LAL	MATI	JRITY	SCALE		

Score	Social age	Number in mature group	Number in immature group
68.0	7.6	1	
65.0	7.0	1	
64.0	6.8	2	
63.5	6.6	2	
63.0	6.5	3	
62.0	6.3	5	
61.5	6.1	8	
61.0	6.0	8	
60.0	5.8		6
59.5	5.7		6
59.0	5.6		4
58.5	5.5		4
58.0	5.4		2
57.0	5.2		2
56.5	5.1		2
56.0	5.0		2
55.5	4.9		1
55.0	4.8		1

# TABLE II

# SOCIAL QUOTIENTS OF THE FIRST GRADE CHILDREN OF STANFIELD SCHOOL

Social Quotient	Number in mature group	Number in immature group
125-127	1	
122-124		
119-121		
116-118	1	
113-115		
110-112	2	
107-109	1	
104-106	3	
101-103	7	1
98-100	6	4
95- 97	5	
92- 94	1	2
89- 91	2	1
86- 88	1	2
83- 85		5
80- 82		8
77- 79		4
74- 76		3

to five years eight months. The socially mature group had a mean social age of six years two months as compared with five years six months for the socially immature group.

Social quotients of the two groups. A social quotient was obtained for each child by dividing his social age by his chronological age. It was found that the social quotients of the children in the socially mature group ranged from 88 to 127. The mean social quotient of the socially mature group was 100.8. The median was 102, and the standard deviation was 4.93.

Those in the socially immature group had social quotients ranging from 74 to 103. The mean social quotient for this group was 85.3. The median was 85, and the standard deviation was 7.8.

# II. COMPARISON OF THE INTELLIGENCE QUOTIENTS OF THE TWO GROUPS

After the children had been divided into two groups, the California Short-Form Test of Mental Maturity for the primary grades was given. This test measured their mental development in four areas: (1) spatial relationship; (2) logical reasoning; (3) numerical reasoning; and (4) verbal concepts. From the test results, the intelligence quotient of each child was derived. Table III compares the intelligence quotients of the socially mature

# TABLE III

# INTELLIGENCE QUOTIENTS OF THE FIRST GRADE CHILDREN OF STANFIELD SCHOOL

Intelligence Quotient	Number in mature group	Number immature	
138-142	1		
133-137			
128-132	1		
123-127			
118-122	1		
113-117	4		
108-112	6		
103-107	5	1	
98-102	6	4	
93- 97	2	2	
88- 92		- 6	
83- 87	3	10	
78- 82	1	4	
73- 77		1	
68- 72		2	

group with those of the socially immature group.

The intelligence quotients of the children in the socially mature group ranged from 80 to 142. The mean intelligence quotient was 104.9, the median was 105, and the standard deviation was 5.12.

The children in the socially immature group had intelligence quotients ranging from 69 to 103. A mean intelligence quotient of 86.5 was found for this group. The median was 85, and the standard deviation was 8.1.

# III. COMPARISON OF THE TWO GROUPS AS TO GRADE EQUIVALENTS, AGE EQUIVALENTS, AND ACHIEVEMENT QUOTIENTS

The achievement of the students was measured by the Metropolitan Achievement Test, Form S. The Primary Battery for the first grade was used. This test contained four subtests which measured achievement in reading and arithmetic. The scores of these subtests were averaged to provide an average achievement for each individual. The achievement was expressed in terms of grade equivalent and age equivalent. An achievement quotient for each child was obtained by dividing the age equivalent by the chronological age. These data are shown in Tables IV and V.

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25

# TABLE IV

# GRADE EQUIVALENTS AND AGE EQUIVALENTS OF THE FIRST GRADE CHILDREN OF STANFIELD SCHOOL DERIVED FROM THE METROPOLITAN TEST

Grade Equivalent	Age Equivalent	Number in mature group	Number in immature group
3.6	8.9	1	-
3.1	8.3	1	
2.9	8.0	1	
2.7	7.10	1	
2.6	7.8	1	
2.5	7.7	2	
2.4	7.6	2	
2.3	7.4	2	1
2.2	7.3	5	
2.1	7.1	1	
2.0	6.11	6	2
1.9	6.10	4	7
1.8	6.9	1	6
1.7	6.6	1	6
1.6	6.5	1	4
1.5	6.3		2
1.4	6.2		1
1.3	6.0		1

# TABLE V

ACHIEVEMENT	QUOTIENTS	OF TH	E FIRST	GRADE	CHILDREN	
	OF STA	NFIELD	SCHOOL			

Achievement Quotient	Number in mature group	Number in immature grou
134-137	l	
130-133		
126-129	1	
122-125	1	
118-121		
114-117	1	
110-113	9	1
106-109	6	
102-105	4	1
98-101	2	3
94- 97	5	8
90- 93		10
86- 89		7

Grade equivalents and age equivalents of the first grade children of Stanfield School. The children in the socially mature group had average grade equivalents ranging from first grade sixth month to third grade sixth month. The grade equivalents of the children in the socially immature group were first grade third month to second grade third month. The mean grade equivalent for the socially mature group was second grade second month as compared with first grade seventh month for the other group.

The age equivalents of the children in the socially mature group ranged from six years five months to eight years nine months. The children in the socially immature group had age equivalents ranging from six years to six years eleven months. A mean age equivalent of seven years three months was found for the socially mature group, while the mean age equivalent for the other group was six years nine months.

Achievement quotients of the first grade children of Stanfield School. An achievement quotient was obtained for each child by dividing the age equivalent derived from the Metropolitan Achievement Test by his chronological age. The achievement quotients of the children in the socially mature group ranged from 97 to 137. The mean achievement quotient for this group was 110.7, the median was 108, and the

## standard deviation was 6.14.

In the socially immature group the achievement quotients ranged from 86 to 110. A mean achievement quotient of 94.7 was found. The median was 93 and the standard deviation was 3.8.

A t-test was computed for the difference between the mean achievement scores for the socially mature and the socially immature groups. This computation gave a t-test value of 12.02, which showed that the obtained results were significant beyond the one per cent level. Identical results would happen by chance less than one time in a hundred similar situations; therefore, the difference in mean achievement was a real difference. Since the t-test was positive, the difference was in favor of the socially mature group. The favored group had the high scores on the Vineland Social Maturity Scale.

# IV. CORRELATION OF THE SOCIAL QUOTIENTS, INTELLIGENCE QUOTIENTS, AND ACHIEVEMENT QUOTIENTS

Correlations between the scores obtained on the tests used in this study were computed by the Pearson Product-Moment Coefficient of Correlation. High positive correlations were found in each case.

For the socially mature group, a correlation of .89 was found between the intelligence quotients and social TABLE VI

MEDIANS, MEANS, AND STANDARD DEVIATIONS FOR THE VINELAND SOCIAL MATURITY SCALE, CALIFORNIA TEST OF MENTAL MATURITY, AND METROPOLITAN ACHIEVEMENT TEST GIVEN TO FIRST GRADE CHILDREN AT STANFIELD SCHOOL

	MEI	MEDIAN	MEAN	NN.	STI	STANDARD DEVIATION
Test	Mature group	Immature group	Mature group	Immature group	Mature group	Immature group
Vineland Social Maturity Scale	102*	85	100.8	85.3	4.93	7.8
California Test of Mental Maturity	105	86	104.9	86.5	5.12	8.1
Metropolitan Achieve- ment Test	108	93	110.7	2.46	41.6	3.8

\* Scores given are social quotients, intelligence quotients, and achievement quotients.

quotients. The correlation of these quotients was .94 for the socially immature group.

There was a correlation of .92 between the achievement quotients and the social quotients for the socially mature group. The correlation between these same quotients was .86 for the socially immature group.

The groups were combined and a correlation of .95 was found between the intelligence quotients and the achievement quotients for the two groups in combination.

#### CHAPTER IV

## SUMMARY AND CONCLUSIONS

## I. SUMMARY

This study was carried out in an attempt to determine whether or not the socially mature first grade children of Stanfield School tended toward higher scholastic achievement than that attained by the socially immature children.

The students were divided into the socially mature group and the socially immature group on the basis of scores made on the Vineland Social Maturity Scale. The mature group included the thirty students who made the highest scores, while the thirty who made the lowest scores were placed in the socially immature group. Questionable cases were not included in the study. A social age and social quotient was derived for each child.

After the children were divided into the two groups, the California Short-Form Test of Mental Maturity for the primary grades was given. This test provided an intelligence quotient for each child. It was found that the children in the socially mature group tended toward higher intelligence quotients than those in the socially immature group.

The achievement of the two groups was measured by

the Metropolitan Achievement Test. From this test a grade equivalent, age equivalent, and achievement quotient were obtained for each child. The children in the socially mature group tended toward higher achievement. Those who had higher intelligence quotients tended also to have higher age equivalents, grade equivalents, and achievement quotients.

## II. CONCLUSIONS

In the light of the data which have been presented, the following conclusions were made:

- 1. There was a positive relationship between the social maturity and the scholastic achievement of the sixty pupils included in this study. The results of this study indicated that generally pupils involved in this study who were socially mature attained higher scholastic achievement than those who were not socially mature. However, more research is needed before any conclusions applicable to first grade pupils in general can be reached.
- 2. A positive relationship was found also between social maturity and intelligence. Those pupils involved in this study who were socially mature also had higher intelligence quotients than the students who were socially immature.

3. It was found that there was a positive relationship between intelligence and achievement among the pupils with whom this study was concerned. The results of the study indicated that pupils who had higher intelligence quotients usually attained higher scholastic achievement than that attained by those who had low intelligence quotients.

Further research in this area is needed on the primary level. Most of that which has been done was concerned with other levels. A comparison of the social maturity and achievement of boys and girls would also advance professional knowledge in these areas.

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