COMPARISON OF SELF-CONCEPTS POSSESSED BY CHILDREN ATTENDING REGULAR AND SPECIAL CLASSROOM SETTINGS

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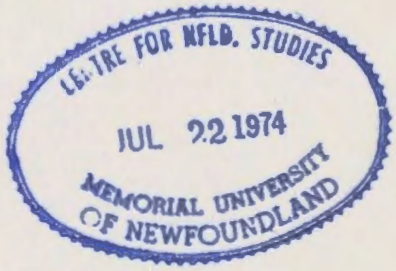
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COMPARISON OF SELF CONCEPTS POSSESSED BY CHILDREN ATTENDING REGULAR AND SPECIAL CLASSROOM SETTINGS

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ABSTRACT

The purpose of this study was to compare the self-concepts possessed by children in regular classroom settings and children in special classroom settings, children at different grade levels, and male and female children. The questions raised in the study were stated in the form of null hypotheses and were tested for significance using the multivariate and univariate analysis of variance, the F statistic, and the t-test. The hypotheses were tested for rejection or acceptance at the alpha 0.05 level of significance. The 240 randomly selected subjects were placed into 8 groups according to the variables of type of class placement, grade level, and sex. The subjects' self-concepts were assessed by the non-verbal Self-Social Symbols Test. Results indicated no significant differences between special class children and regular class children when they were compared on the basis of overall self-concept. Significant differences were found between special and regular class children and between male and female children when they were compared on the basis of their nine subtest scores on the Self-Social Symbols Test. Also, a significant interaction effect was found between the factors grade level and sex on one subtest.

Chapter 1

INTRODUCTION

Special education classes for children who are educable mentally retarded first appeared in the public schools at the beginning of the twentieth century.[1] Since that time, special classes and programs for children who are mentally retarded have been involved in a period of rapid growth and expansion. There were 23,000 children in the United States enrolled in public school classes for the mentally retarded in 1922. By 1948, the number of students enrolled in these special classes had increased to 87,000.[2] In a recent publication of statistics on special education in the United States, Mackie pointed out that in 1966, more than 540,000 children were enrolled in special education programs for the mentally retarded. This figure represented approximately a 400 per cent increase over the number of students enrolled in 1948.[3] The increase in pupil enrollments during the period 1948-1966, was more than

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[1] Leo Kanner, A History of the Care and Study of the Mentally Retarded (Springfield, Illinois: Charles C. Thomas, 1964), p. 114.

[2] Samuel A. Kirk, Educating Exceptional Children (Boston: Houghton Mifflin, 1962), p.23.

[3] Romaine Mackie, Special Education in the United States: Statistics 1948-1966 (New York: Teachers College Press, 1969), p.22.

five times greater than the 70 per cent increase in the country's school age population during the same period.[4]

A similar but more recent and rapid expansion in special education classes has been witnessed in Newfoundland. In 1969, an Act was passed to provide for the establishment of special education classes.[5] The Act stated that "Every school board may establish special classes of instruction for children who are, for any physical or mental cause, unable to take proper advantage of the regular school courses of study."[6] As a result of the wording of The Schools Act of 1969, special education classes established within the Province of Newfoundland and Labrador were not internally homogeneous in relation to the type of disability of the child placed in a class, that is, mentally retarded, learning disabled, physically disabled, hearing impaired, visually impaired, emotionally disturbed, and slow learners. Rather, the classes, for the most part, were internally heterogeneous in relation to student abilities and disabilities. The number of special education classes in Newfoundland and Labrador increased from 50 in

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[4] Ibid., p.4.

[5] Statutes of Newfoundland, 1969. "An Act Respecting the Operation of Schools and Colleges in the Province."

[6] Ibid., Section 13, Paragraph (P), p.20.

1969-70, to 420 in 1972-73, which was an increase of more than 800 per cent during the four year period.[7]

Noting the rapid expansion in special education programs and in pupil enrollments, Towne and Joiner postulated that the major motivating force behind this expansion was the belief that placement in these special classes would result in better academic performance, personal development, and social adjustment for the mentally retarded than would have resulted if they had remained in regular classes.[8] An equally important topic for consideration was the effect(s) placement into special education classrooms had upon the self-concept of the child. The present study was concerned with the self-concepts of students placed in special classes as compared to the self-concepts of students placed in regular classrooms.

STATEMENT OF PROBLEM

The purpose of this study was to compare the self-concepts possessed by children in regular classroom settings

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[7] These figures were obtained from the Department of Education, Division of Special Services, Government of Newfoundland and Labrador.

[8] Richard C. Towne and Lee M. Joiner, The Effect of Special Class Placement on the Self-Concept of Ability of the Educable Mentally Retarded Child (Report of U.S. Office of Education, College of Education, Michigan State University, East Lansing, Michigan, 1966), p.2.

and children in special classroom settings. The study assessed the children's self-concept using the non-verbal Self-Social Symbols Test (SSST). (See Appendixes A,B, and C). The questions answered by this study were stated in the null hypothesis form (see Chapter 3). The data were analyzed using the multivariate and univariate analysis of variance (MANOVA), the F statistic, and the t-test in relation to the variables of special or regular class settings, grade level, and sex. These data are reported in table form.

STATEMENT OF RELATED PROBLEMS

A related purpose of this study was to compare the self-concepts held by children at different grade levels. Another purpose was to compare the self-concepts of male and female students.

LIMITATIONS

The children studied were enrolled in special and regular classes in the Roman Catholic School Board District for St. John's. Since this group of students was treated as a separate population, care should be taken against generalizing the results beyond this population.

DEFINITIONS OF TERMS

Special Class Setting

This referred to self-contained classes as established by the Roman Catholic School Board District for St. John's for children who were, for any physical or mental cause, unable to

take proper advantage of the regular school courses of study.

Special Class Student

This referred to those students placed in special education classes within the Roman Catholic School Board District for St. John's.

Regular Class Setting

This referred to classrooms within the Roman Catholic School Board District for St. John's for children of normal or near normal achievement who were functioning near or on grade level.

Regular Class Student

This referred to those students attending classes within the Roman Catholic School Board District for St. John's who were of normal or near normal achievement and who were functioning near or on grade level.

Self-Concept

This referred to the perception which the individual has of self and of his relationship to significant others in his environment as measured by the Self-Social Symbols Test.

Grade Level I

This referred to classrooms for children who were attending grades one to three and whose dates of birth were between December 31, 1963, and January 1, 1967.

Grade Level II

This referred to classrooms for children who attended grades four to six and whose dates of birth were between December 31, 1960, and January 1, 1964.

Self-Social Symbols Test (SSST)

This referred to the instrument used in this study for the measurement of the children's self-concepts. This instrument was further defined in the section dealing with the description of instrumentation (see Chapter 3).

Self-Esteem

This referred to a person's perception of his worth which derives from self-other comparisons on an evaluative dimension. Self-esteem was assessed by the self-esteem subtest of the SSST.[9]

Social Interest or Dependency

This referred to the degree to which a person perceives himself as a part of a group of others, as opposed to a perception of self as an individual. Social interest was assessed by the social interest subtest of the SSST.[10]

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[9] R. C. Ziller, B. H. Long, and E. H. Henderson, Manual for the Self-Social Symbols Method (Unpublished test, 1965), p.10.

[10] Ibid., p.12.

Identification with Mother

This referred to the placement of self in a "we" category with the mother. Identification with mother was assessed by the identification with mother subtest of the SSST.[11]

Identification with Father

This referred to the placement of self in a "we" category with the father. Identification with father was assessed by the identification with father subtest of the SSST.[12]

Identification with Friend

This referred to the placement of self in a "we" category with the friend. Identification with friend was assessed by the identification with friend subtest of the SSST.[13]

Identification with Teacher

This referred to the placement of self in a "we" category with the teacher. Identification with teacher was assessed by the identification with teacher subtest of the SSST.[14]

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[11] Ibid., p.13. [12] Ibid.

[13] Ibid. [14] Ibid.

Individuation or Minority Identification

This referred to whether the child thought of himself as similar to or different from the majority of other children in his environment. Individuation was assessed by the individuation subtest of the SSST.[15]

Complexity

This referred to the degree of differentiation of the self-concept or the number of parts comprising the whole. Complexity was assessed by the complexity subtest of the SSST.[16]

Realism for Size

This referred to a correspondence between the physical self and the conception of self. A child's comparison of his size to that of adults may indicate an acceptance of the physical self as opposed to self-dissatisfaction. Realism for size was assessed by the realism for size subtest of the SSST.[17]

Total Self-Concept Score

This referred to an overall score on the SSST as calculated by the formula presented in Chapter 3 (see page 38).

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[15] Ibid., p.15.

[16] Ibid., p.18. [17] Ibid., pp.18-19.

Chapter 2

REVIEW OF LITERATURE

Interest in self and self constructs had its beginning very early in the development of American psychology, as is manifested in the writings of William James.[1] This interest in self, however, diminished during the early part of the twentieth century as the experimental method in psychology became extremely popular.[2,3] As pointed out by Wylie, theorizing about self and self constructs was quite prevalent before 1949; however, intensive empirical research was not begun until after that date. Since that time, the number of researchers concerned with this area of personality has steadily increased.[4]

Theory of Self-Concept

The words self-concept came into common use to mean the self as the individual is known to himself. The theory behind this idea of self-concept has been known as self

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[1] William James, The Principles of Psychology, I (New York: Holt, 1890), pp. 291-401.

[2] E. R. Hilgard, "Human Motives and the Concept of Self," American Psychologist, IV (1949), p.374.

[3] Lester D. Crow, Psychology of Human Adjustment (New York: Alfred A. Knopp, 1967), p.136.

[4] Ruth C. Wylie, The Self Concept (Lincoln: University of Nebraska Press, 1961), p.2.

theory.[5]

Snygg and Coombs, in presenting their phenomenological theory about self, described the self-concept as those parts of the phenomenal field which are seen by the person to be part or characteristic of himself and which most potently and frequently effect behavior.[6] Furthermore, they stated that "What a person does and how he behaves are determined by the concept he has of himself and his abilities."[7] They believed the person's self-concept functions as the frame of reference for his every behavior and as that factor which gives continuity and consistency to that behavior.[8]

A similar description and view of self-concept was found in the writings of Carl Rogers. Writing on the organization of personality, Rogers explained self-concept as:

> ... all the ways in which an individual perceives himself - all perceptions of the qualities, abilities, impulses, and all perceptions of himself in relation to others are accepted into the organized conscious concept of self then this achievement is accompanied by feelings of comfort and freedom from tension which are experienced as psychological adjustment.[9]

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[5] Ibid., p.1.

[6] D. Snygg and A. Coombs, Individual Behavior (New York: Harper and Brothers, 1949), p.111.

[7] Ibid., p.78. [8] Ibid.

[9] Carl R. Rogers, "Some Observations on the Organization of Personality," American Psychologist, II (1947), p.364.

In addition, he wrote that "... the self is a basic factor in the organization of personality and in the determination of behavior."[10] Furthermore, Rogers suggested that the majority of theories dealing with the nature of self view it in a very similar fashion to the way he explained it, as an organized configuration of perceptions of the individual or self which are admissable to awareness.[11]

Thus, the importance of the self-concept as a construct was evidenced in the theories of Snygg and Coombs and Rogers. It was postulated that the person's perception of himself is the central factor influencing behavior.

Views and descriptions of self-concept which were consistent with those of Rogers and Snygg and Coombs were found in the theoretical writings of Lewin,[12] Crow,[13] Heber,[14] Snyder,[15]

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[10] Ibid., p.361.

[11] Carl R. Rogers, Client-Centered Therapy (Boston: Houghton Mifflin, 1951), pp.498-501.

[12] Kurt Lewin. Principles of Topological Psychology (New York: McGraw-Hill, 1936), p.167.

[13] Crow, op. cit., pp. 135-137.

[14] Rick Heber, "Personality", Mental Retardation: A Review of Research, ed: Harvey A. Stevens and Rick Heber (Chicago: University of Chicago Press, 1967), pp.146-147.

[15] Eldon E. Snyder, "Self-Concept Theory: An Approach to Understanding the Behavior of Disadvantaged Pupils," Clearing House, XL (December, 1965), pp.242-246.

Strang,[16] and the social psychological approaches of Mead,[17] Colley,[18] Sullivan,[19] Kinch[20] and Kuhn.[21] Although these writers tended to have similar descriptions of self-concept, there were differences in their views concerning the development of self-concept.

Wylie, after a review of the theory surrounding the construct of self-concept, proposed an excellent summary to the various theoretical frameworks as she wrote "... self-concept theorists believe that one cannot understand and predict human behavior without knowledge of the subject's conscious perceptions of his environment, and of his self as he sees it in relation to his environment."[22]

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[16] Ruth Strang, The Adolescent Views Himself (New York: McGraw-Hill, 1957), pp.68-78.

[17] George H. Mead, Mind, Self and Society (Chicago: University of Chicago Press, 1934), p.48.

[18] C. A. Cooley, Human Nature and Social Interaction (New York: Charles Scribner's Sons, 1902), pp.20-21.

[19] H. S. Sullivan, "The Illusion of Personal Individuality," Psychiatry, XIII (May, 1959), pp.317-333.

[20] John W. Kinch, "A Formalized Theory of Self-Concept," American Journal of Sociology, LCVIII (June, 1963), pp.481-486.

[21] Charles W. Tucker, "Some Methodological Problems of Kuhn's Self-Theory," Sociological Quarterly, VII (Summer, 1966) pp.345-358.

[22] Ruth C. Wylie, The Self Concept (Lincoln: University of Nebraska Press, 1961), p.6.

Development of Self-Concept

Snygg and Coombs viewed the self-concept as that which was essentially absent at birth. The self-concept was seen as a direct result or outgrowth of the culture into which the individual was born. Through interaction with the world, significant people and other things in the environment, the self-concept was shaped and defined more and more clearly and became more or less permanently fixed.[23]

Cobb's view of the development of self-concept is very similar to that of Snygg and Coombs. He saw the self-concept as a relatively stable element of the individual's personality. In addition, he felt that even though the self-concept achieves stability in childhood, it undergoes a refinement as the individual passes from dependency to independency or adolescence to adulthood.[24]

Consistent with Cobb's view about the transition from dependency to independency, Ziller wrote that an important step in the development of self-concept occurs when, during the socialization process, the child strives to break away from the complete dependency of infancy. However, Ziller

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[23] D. Snygg and A. Coombs, Individual Behavior (New York: Harper and Brothers, 1949), pp. 81-83.

[24] Henry V. Cobb, "Self Concept of the Mentally Retarded," Rehabilitation Record, II (1961), pp.21-25.

differed from Cobb in that he saw self-concept as always in a state of continual change and modification throughout the life of the individual.[25]

Rogers, like Ziller, also viewed the self-concept as "process". He felt that the structure of self was formed as a result of interaction with the environment and particularly as a result of evaluational interaction with significant others. By significant others mean parents, teachers, peers, and others important to the individual. The self-concept was thought to be a social product developed out of interpersonal relationships.[26]

Eldon Snyder corroborated Roger's viewpoint as he described self-concept as emerging from the social interactions in which the individual participates. According to Snyder, self-concept is in a continual process of change as the social situations are modified. He felt that there would be continuity in behavior patterns as a result of significant other individual's expectations of him in social situations.[27]

In addition to the previous theoretical approaches to

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[25] R. C. Ziller, "Individuation and Socialization," Human Relations, XVII (1964), pp.341-360.

[26] Carl R. Rogers, " A Theory of Therapy, Personality, and Interpersonal Relationships, as Developed in the Client-Centered Framework," Psychology: A Study of a Science, ed. Sigmund Koch (New York): McGraw-Hill, 1959), pp.200-223.

[27] Eldon E. Snyder, "Self-Concept Theory: An Approach to Understanding the Behavior of Disadvantaged Pupils," Clearing House, XL (December, 1965), p.243.

the development of self-concept, one cannot overlook the theoretical approach taken by the social interaction theorists such as Mead, Cooley, Sullivan, and Kinch.

George H. Mead explained the development of self-concept as emerging directly from the behaviors of others toward the individual and indirectly from the physical and other attributes of the individual. He saw the self resulting from the interaction between the individual and his social world. He felt that an individual has as many self-concepts as the social roles he performs.[28]

Cooley, like Mead, insisted that a person's social environment played a most significant role in the development of self-concept or how a person comes to view himself. Cooley expounded on this when he introduced the idea of the "looking glass self."[29]

Similar to Mead and Cooley, Sullivan considered the development of a child's self-concept or his expectations, opinions, attitudes, and feelings towards himself as resulting from social interaction beginning very early in life. He saw it as a consequence of communicating with significant others.[30]

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[28] George H. Mead, Mind, Self and Society. (Chicago: University of Chicago Press, 1934), p.48.

[29] C. Cooley, "Human Nature and Social Interaction (New York: Charles Scribner's Sons, 1902), pp.20-21.

[30] H. S. Sullivan, "The Illusion of Personal Individuality", Psychiatry, XIII (May, 1950), pp.317-332.

Kinch's theoretical views on self-concept were very similar to those of the previous three theorists. He discussed self-concept development from a circular viewpoint and purported that self-concept results from social interaction and is based on the individual's perceptions of the way others are responding to him.[31]

Ruth Strang also saw the self-concept as developing from birth through interpersonal relationships. Strang felt that a child's self-concept was molded by the attitudes towards him of persons most significant in his life, for example, parents, teachers and friends.[32]

Thus, self-concept was seen by the majority of theorists to develop from birth through social interaction. It was felt by many that it was always in a state of continuous change and modification.

Havighurst, Robinson and Dorr conducted a study related to self-concept development in which they attempted to describe the development of ideal self in children of different ages. The technique they used to gather their data was a self-report technique in which the children were asked to write an essay entitled "The Person I Would Like to be Like."

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[31] John W. Kinch, "A Formalized Theory of Self Concept", American Journal of Sociology, LCVIII (June, 1963), pp.481-486.

[32] Ruth Strang, The Adolescent Views Himself (New York: McGraw-Hill, 1957), pp.75-76.

The analysis of the essays revealed a developmental trend. They concluded that the responses fall mainly into four categories, parents or other family members, glamourous persons, attractive and visible young adults, and imaginary characters. An age sequence was also found to exist, as the choice of a category moved outward from the family circle with age. The results indicate that children from ages six to eight tended to choose a parent or other family member as the person they wanted to be like. A glamourous person, for example, a movie star, was the most frequent choice of children eight to sixteen years of age. The choice then moved to attractive and visible young adults and finally to imaginary persons.[33]

Louise Ames, in a later study, investigated the child's developing sense of self in relation to others as it was expressed or implied in his verbalizations in a nursery school situation. Data were collected and analyzed for children from ages eighteen months to four years. The results of the study indicated that the mother appeared to exert the greatest influence on development of the sense of self at the earliest

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[32] Ruth Strang, The Adolescent View Himself (New York: McGraw-Hill, 1957), pp.75-76.

[33] R. Havighurst, M. Robinson and M. Dorr, "The Development of the Ideal Self in Childhood and Adolescence," Journal of Educational Research, XL (1946), pp.241-257.

ages and that at later ages the emphasis shifted to other adults and finally to peers.[34]

The self-concept has also received attention from the point of view of the effect which physiological change occurring during adolescence has on it. Mussen and Jones investigated the relationship between physical maturational status and certain aspects of personality. Specifically, they studied the relationship between late and early maturers and self-concept. The findings indicated that more late-maturing than early-maturing boys revealed feelings of inadequacy and negative self-concepts, viewed parents as highly dominating and rejecting, and exhibited strong underlying dependency needs.[35] Also, Smith and Lebo demonstrated a positive relationship between physiological changes occurring in early adolescence and personality development. The results of the study seemed to support the idea that the physical changes of adolescence, no less than the rapid changes of infancy, will be reflected in the individual's behavior as he becomes aware of new abilities and new possibilities within himself, particularly as he relates himself to others.[36]

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[34] Louise B. Ames, "The Sense of Self of Nursery School Children as Manifested by Their Verbal Behavior," Journal of Genetic Psychology, LXXXI (1952), pp.193-232.

[35] P. H. Mussen and M. C. Jones, "Self-Conceptions, Motivations, and Interpersonal attitudes of Late - and Early - Maturing Boys", Child Development, XXVIII (1957), pp.243-256.

[36] W. D. Smith and P. Lebo, "Some Changing Aspects of the Self-Concept of Pubescent Males", Journal of Genetic Psychology, LXXXVIII (1956), pp.61-75.

Engel, concluding that there was very little research done by way of longitudinal studies to add to knowledge of self-concept development, investigated the stability of self-concept in adolescents over a two year period. It was also the purpose of the study to examine the relationship between whatever stability found and the quality of the self-concept. Measures of self-concept were obtained through the use of Q-sorts administered in 1954 and 1956. A correlation of .53 was found between the two administrations. However, it was also found that subjects whose self-concept was negative at the initial testing were significantly less stable than subjects whose self-concepts were positive.[37]

Strang collected and analyzed self-descriptions from a large number of adolescents. The analysis seems to suggest that as the adolescent encounters varying social experiences, or, as the social field changes, his self-concept undergoes restructuring.[38] Thus, as rapid changes occur physiologically and also as the social field changes, the self-concept is modified.

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[37] M. Engel, "The Stability of the Self-Concept in Adolescence," Journal of Abnormal and Social Psychology, LVIII (1959), pp.211-215.

[38] Ruth Strang, The Adolescent Views Himself (New York: McGraw-Hill, 1957).

Parental Influence on Self-Concept

The majority of personality theorists concerned with self and self-constructs emphasized the importance of the role that "significant others" played in the development of self-concept. By significant others was meant those persons, real or imaginary, who exert an influence on the individual's beliefs about himself and his world. Furthermore, it was felt that parents exert the greatest influence on this development. The significance of the parental role was found in the writings of Felsenthal. She stated that "In many cases the behavior problems resulting from a poor self-concept could have been prevented or avoided by earlier implementation of parental conduct conducive to the development of a positive self-concept."[39] In addition, she saw the mother as playing the most important role in the early psychological development of the child as this mother-child dyad is the earliest and perhaps most fundamental human relationship.[40]

Melvin Manis provided support for this idea of parental

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[39] Helen Felsenthal, "The Developing Self: The Parental Role," The Child and His Image: Self Concept in the Early Years, ed. Kaoru Jamamoto (Boston: Houghton Mifflin Company, 1972), p.178.

[40] Ibid., p.80.

influence on self-concept in his study involving adjusted and maladjusted groups of college students as determined by reports of self on the M.M.P.I. He had these students describe their real and ideal self and the real and ideal self of each of their parents on a twenty four item evaluative rating scale. The results of the study indicated that the adjusted subjects see themselves as being more like their parents than the maladjusted subjects and they also felt that they were more highly esteemed by their parents. Furthermore, there was indication that the adjusted subjects saw themselves as being more similar to the parent of the same sex.[41]

Further support for the idea of parental control over self-concept was furnished by Henry. He constructed a hypothetical situation for his investigation. Each subject was asked to imagine himself as one of two people engaged in a conversation in which the other participant gets hurt in some way. Then the subject had to respond to five items measuring self-blame or blame of the other person. The results of the study indicated that those who tended to blame themselves for the situation perceived their mother as playing the principal disciplinary role in the family.[42]

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[41] Melvin Manis, "Personal Adjustment, Assume Similarity to Parents, and Inferred Parental-Evaluation of the Self", Journal of Consulting Psychology, XXII (1958), pp.481-485.

[42] Andrew F. Henry, "Family Role Structure and Self Blame", Social Forces, XXXV (1956), pp.34-38.

Wylie, after reviewing the studies by Manis and Henry and several others conducted before 1961, which investigated the relationship between parent-child interaction and self-concept, concluded:

> There is some evidence, not entirely free of artifact, to suggest that childrens' self concepts are similar to the view of themselves which they attribute to their parents. There is some limited evidence that a child's level of self-regard is associated with parents' reported level of regard for him. There is some evidence to suggest that children see the like-sex parents' self-concept (as contrasted to the opposite-sex parents' self-concept) as being somewhat more like their own self concept. There is some evidence that children with self-reported maladjustment see their parents' views of them as differing from each other.[43]

Recently, however, Coopersmith conducted what is probably the most extensive investigation into the relationship between parent-child interaction and self-concept. His work, which consisted of a series of studies, had as it major objective the task of explaining and clarifying the antecedents and consequences of self-esteem. The results of these studies indicated that mothers of children of high self-esteem tended to respond differently to their children than did mothers of children of low self-esteem. The former tended to be more loving and accepting of their children and also maintain a closer relationship with them. Also, parents of children with high self-esteem differed from parents of children of low self-esteem in the types of demands they made of their children and the firmness and consistency with which these demands were enforced. It was also discovered that the families differed in-

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[43] Ruth C. Wylie, The Self Concept (Lincoln: University of Nebraska Press, 1961), pp. 135-136.

the methods they employed to control and modify behavior. There was no difference in the amount of punishment used by each of the families. However, it was expressed differently and perceived by the high esteem children as being justified. The high esteem parents established the most extensive and closest rules for their children and were also more concerned about enforcing them. However, in the high esteem families, the child was respected as an individual and his rights and opinions were recognized. In sum, the conditions which existed in families of children of high self-esteem were almost the exact opposite of those which existed in families of children of low self-esteem.[44]

Ellsworth also reported findings relevant to the idea of parental influence on self-concept. After an analysis of data obtained from clinical cases, he concluded that emotional problems and negative feelings about self were a result of three very common causes: overprotection; domination; and, neglect by parents. However, he felt that parents could promote the development of a positive self-concept in their children by treating them as real people rather than inanimate objects; by showing them love, respect, trust, confidence, admiration and understanding.[45]

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[44] Stanley Coopersmith, The Antecedents of Self-Esteem (San Francisco and London: W. H. Freeman and Company, 1967), pp.164-235.

[45] Sterling G. Ellsworth, "Building the Child's Self-Concept", N.E.A. Journal, LVI (February, 1967), pp.54-56.

Hence, based on the research dealing with the relationship between parent-child interaction and the development of self-concept, parents are directly responsible for the self-concept which the child has of himself.

Teacher Influence on Self-Concept

As was pointed out earlier in this chapter, theorists and researchers such as Ziller,[46] Ames[47] and Snyder[48] suggested that a child's self-concept emerges as a result of his interaction with "significant others" such as parents, teachers and peers. It was thought that parents exert the greatest influence on the developing sense of self, particularly during the earliest ages. However, when the child enters school the emphasis shifted to the teacher and later to the peers.

The view that teachers influence the personality development of their pupils was corroborated by evidence furnished in two related studies by Perkins. He reported that

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[46] R. C. Ziller, "Individuation and Socialization", Human Relations, XVII (1964), pp. 341-360.

[47] Louise B. Ames, "The Sense of Self of Nursery School Children As Manifested by Their Verbal Behavior", Journal of Genetic Psychology, LXXXI (1952), pp.123-232.

[48] Eldon E. Snyder, "Self-Concept Theory: An Approach to Understanding the Behavior of Disadvantaged Pupils", Clearing House, XL (December, 1965), p.243.

teachers' perceptions of pupils' self-concepts were, in general, positively and significantly related to their pupils' expressed self-concepts. This relationship was found to be even more significant for teachers who had completed a three year child study program. Also, pupils of teachers who participated in the child study program showed significantly better self-concepts than pupils of teachers who did not participate in the program. The results of Perkins' studies indicated that teachers did, either consciously or unconsciously, influence the self-concepts of students.[49]

Belief in the significance of teacher influence on self-concept was further substantiated in a study conducted by Davidson and Lang. The investigation dealt with the relationship between children's perceptions of their teachers' feelings toward them and their own expressed self-perceptions. The data for the study were collected by administering a checklist of adjectives to the students. The adjectives were of the "My Teacher thinks I am" and the "I think I am" type. Davidson and Lang concluded that there was a positive and significant correlation between the children's perceptions of their teachers' feelings and their own self-concept. Results also indicated that children possessing more favourable self-concepts were more likely to perceive their teachers' feelings

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[49] H. V. Perkins, "Teachers' and Peers' Perceptions of Childrens' Self-Concepts," Child Development, XXIX (1958), pp. 203-220.; see also H. V. Perkins, "Factors Influencing Change in Children's SElf-Concepts", Child Development, XXIX (1958), pp.221-230.

toward them as being more favourable. In addition, the more positive a child's perceptions of his teachers feelings, the better was the academic standing of the child and the more desirable was his classroom behavior. The implications of this study are that in addition to children being aware of the attitudes of teachers toward them, they also tended to perceive themselves in much the same manner that the teachers perceive them.[50]

Melvin Manis, in another study, presented findings which lend further support to the idea of teacher influence on children's self-concept. The study, using college freshmen as subjects, was designed to test the assumption that one's social interactions form the basis of one's self-perceptions. Manis reported that a person's self-concept can be influenced by other person's perceptions of him after a period in which the people were permitted to interact freely. He also reported that there was no tendency for the self-estimate to affect the view which others have of him. These findings supported the idea that the things which an individual sees and believes about himself were to an extent determined by what others believe about him, that is, what teachers believe.[51]

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[50] Helen H. Davidson and Gerhard Lang, "Children's Perceptions of Their Teacher's Feelings Toward Them Related to Self-Perception, School Achievement and Behavior", Journal of Experimental Education, XXIX (December, 1960), pp.107-118.

[51] Melvin Manis, "Social Interaction and the Self-Concept," Journal of Abnormal and Social Psychology, LI (1955), pp.262-370.

Snyder summed up rather concisely the general feeling about teacher-child interaction and self-concept when he suggested that teachers may, unintentionally, through their behaviors and attitudes toward students, modify the self-images of students in a manner that is detrimental. He wrote that in view of the possible effects that they may have on students, "teachers should try to anticipate the consequences to the students' self-image."[52]

Peer Influence on Self-Concept

Considering the great importance which both theorists and researchers credit to the "significant others", this writer found it most amazing in that he was unable to locate any reported research investigating the effect that peers exert on the development of this particular aspect of a child's personality, or, for that matter, personality development in general.

Special Education and Self-Concept: Related Research

The continuing expansion in special education programs, which was noted in Chapter 1, stimulated a tremendous amount of research. However, very few research studies reported in the literature investigated the relationship between special education and childrens' self-concept. In fact, most of the literature, which was reviewed by the writer for the purposes

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[52] Eldon E. Snyder, "Self-Concept Theory: An Approach to Understanding the Behavior of Disadvantaged Pupils", Clearing House, XL (December, 1965), p.244.

of this study, was concerned with the self-concept of normal individuals. For example, following a recent review of personality research related to the mentally retarded, Heber concluded that "Despite the importance of global concepts of 'feelings about oneself' in contemporary personality theory, one can only speculate about the self-concept of the mentally retarded."[53] Jones also referred to this lack of pertinent research in her writings dealing with the labels and stigmas attached to special education classes. Jones suggested that some of the labels used in special education imply deficiencies and shortcomings which may generate attendant problems of lowered self-concept and expectations which interfere with a child's optimum growth and development. She referred to the fact that insufficient attention had been given to this area and reported that no empirical study has been reported in the literature dealing with labels and stigma in public school populations of exceptional children.[54] In spite of this dearth of relevant research related to self-concept and the exceptional child, several studies dealing directly with this section, although not directly related to this area, also pro-

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[53] Rick Heber, "Personality", Mental Retardation: A Review of Research, ed. Harvey A. Stevens and Rick Heber (Chicago: University of Chicago Press, 1967), p.147.

[54] R. L. Jones, "Labels and Stigma of Special Education." Exceptional Children, XXXVIII (March, 1972), pp.553-554.

vided findings which shed light on the relationship of special education and self-concept.

Collins and Burger, in the most recent study reported, compared educable mentally retarded adolescents attending special classes and adolescents attending classes for normal students on the Tennessee Self-Concept Scale. They reported that there were significant differences between the scores of educable mentally retarded adolescents and the normal adolescents on the self-criticism and social-self subtests and concluded that the retarded adolescents possessed more negative self-concepts and lower self-esteem.[55]

Meyerowitz furnished evidence similar to that provided by Collins and Burger in a study in which he investigated the change in retarded childrens' self-concepts as a result of special class placement.[56] According to Meyerowitz, the advocates of special class placement of educable mentally retarded children contend that among other advantages, these classes promote the acquisition of a more nearly realistic and healthy self-concept. This contention was based upon the

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[55] H. A. Collins and G. K. Burger, "The Self-Concept of Adolescent Retarded Students", Education and Training of the Mentally Retafded, V (February, 1970), pp.23-30.

[56] J. H. Meyerowitz, "Self-Derogations in Young Retardates and Special Class Placement", Child Development, XXX III (1962), pp.443-451.

assumption that regular class placement confronted the retarded child with standards that were so far out of reach because of his low mental ability that the child as a result had no substantial basis for forming a healthy perception of self.[57] The results of the study supported his hypothesis that there would be a change in self-concept after special class placement. He found that special class students increased in self-derogations or acquired a more negative self-concept after one year in the special program.

The reasoning behind early placement of exceptional children into special classes has been that the longer the retarded child remained in the regular class, the more failures he would meet, and thus increased the probability of him developing a negative perception of himself.[58] Mayer, investigating the relationship between early special class placement and the self-concepts of mentally handicapped children, furnished evidence, which corroborated the results reported by Meyerowitz. The results of this study did not support the hypothesis that early placement of these children was related to the development of positive self-concepts. No justification was indicated by the results that early identification and placement of exceptional children in special classes fostered a better self-concept.

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[57] Ibid., p.243.

[58] C. L. Mayer, "The Relationship of Early Special Class Placement and the Self-Concepts of Mentally Handicapped Children", Exceptional Children, XXXIII (October, 1966), pp.77-81.

Carroll, in another relevant study, investigated the effects of segregated and partially integrated school programs on the self-concept of educable mentally retarded students. Carroll reported that students participating in the partially integrated program made a significant improvement in developing a more positive self-concept over one academic year.[59]

Welch, in a similar study, also reported findings comparable to those reported by Carroll as he found that the type of school program did have an effect on the self-concept of the educable mentally retarded, with students in a partially and academic achievement than those in a segregated setting.[60]

Also, Bauer, in a study investigating the determinants of self-concept in educable mentally retarded children, reported findings similar to those of Carroll and Welch. Bauer found significantly higher self-concept scores for the children placed in the partially segregated programs than for those children placed in a completely segregated setting.[61]

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[59] A. W. Carroll, "The Effects of Segregated and Partially Integrated School Programs on the Self-Concept and Academic Achievement of Educable Mental Retardates", Exceptional Children, IV (1967), pp.93-99.

[60] E. A. Welch, "The Effects of Segregation and Partially Integrated School Programs on Self-Concept and Adademic Achievement of Educable Mental Retardates", Dissertation Abstracts, 26: 5533-5534, 1966.

[61] Bauer, Daryll, D. Jr. The Analysis of Self-Concept in Educable Mentally Retarded Children as Measured by the Self-Symbols Test. (Unpublished Doctor's dissertation, University of Virginia, 1970), p.178.

Elenbogen, in a comparison study of two groups of mentally retarded students, reported that those children in special classes did not achieve as well academically as the retarded children in the regular grades; however, there was an indication that they were better adjusted socially both in and out of school.[62] Apart from this study, most of the research concerned with special classes and the self-concept indicated that special class placement had a detrimental effect on self-concept.

Another study by Meyerowitz, although not directly involving the self-concept of special class students, provided evidence which may also be important in the consideration of the effect which special class placement has on self-concept. Meyerowitz investigated the effect that special class placement of educable mentally retarded children had on the attitudes of parents. He found that parents of children who attended special class showed greater awareness of their child's retardation and tended to derogate and devalue their child more than did parents of educable mentally retarded children who were attending the regular classes.[63] In light of the literature which was presented in the section dealing with

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[62] M. L. Elenbogen, "A Comparitive Study of Some Aspects of Academic and Social Adjustment of Two Groups of Mentally Retarded Children in Special Classes and in Regular Grades," Dissertation Abstracts, 17: 2496, 1956.

[63] J. H. Meyerowitz, "Parental Awareness of Retardation", American Journal of Mental Deficiency, LXXI (1967), pp. 637-643.

parental influence on self-concept, it seems probable that when children are placed in special class a parent's perception of the child changes which in turn may influence the child's self-perception.

Other recent studies concerned with the evaluation of special classes have also produced results which corroborate the findings of earlier studies. Smith and Kennedy,[64] Johnson,[65] and Goldstein, Moss, and Jordan[66] have conducted studies that have produced results which further substantiate the view expressed by Lilley that "special programs have produced little that is superior to what is produced in the regular class setting."[67]

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[64] H. V. Smith and W. A. Kennedy, "Effects of Three Educational Programs on Mentally Retarded Children", Perceptual and Motor Skills, XXIV (1967), p.174.

[65] G. O. Johnson, "Special Education for the Mentally Handicapped - A Paradox", Journal of Exceptional Children XIX (1962), pp.62-69.

[66] H. Goldstein, J. W. Moss, and L. J. Jordan, The Efficacy of Special Class Training on the Development of Mentally Retarded Children, (Washington, D.C.: Dept. HEW, Office Educ., 1965).

[67] M. S. Lilley, "Special Education: A Teapot in a Tempest", Educational Perspectives in Learning Disability, ed. D.D. Hamill and N. R. Bartel (Toronto: John Wiley & Sons, Inc., 1971).

Hence, it seems that much of the research dealing with special education, particularly that relating to self-concept, has produced findings that make special class placement a questionable procedure.

SUMMARY OF REVIEW OF LITERATURE

The self-concept was seen by the various theorists as that configuration of qualities and characteristics which the individual feels are descriptive of himself. It was seen by the majority as that which is absent at birth and which develops through social interaction as the child grows and matures. The child learns, through the use of language and identification, the various attitudes, values, and opinions which significant others in his environment have toward themselves and him. Gradually, he accepts these views of others which result from social experience into his own view of himself. The development self-concept was thought to be continuous as it is influenced by the varying social situations and experiences. It was felt to be in a state of continuous change and modification.

Research indicated that parents exert the greatest influence over a child's self-concept. However, as the child's life space expands, the teacher and gradually the child's peers become important sources of influence.

Most of the research reviewed concerned with special education and self-concept indicated that special class placement would have a detrimental effect on a child's self-concept.

Several studies, for example those by Collins and Burger, and Meyerowitz, furnished findings that indicated that special class placement resulted in the development of more negative self-concepts. Carroll, Welch, and Bauer found that the type of class placement did have an effect on self-concept, with children in segregated settings having more negative views of themselves. Meyerowitz also found that special class placement did influence the parents' perception of their children in a negative direction. This negative perception by parents could affect the children's self-views. Apart from the study by Elenbogen, most of the research which was reviewed reported findings which make plans for further expansion in special classes a questionable idea until more adequate research has been conducted.

Chapter 3

PROCEDURES

The subjects for this study were selected children from within the Roman Catholic School Board District for St. John's. A request was initiated with the School Board for students to participate in the study (see Appendixes D and E). Out of the requested 600 students, a total of 401 children were surveyed from which 240 subjects were randomly chosen to constitute the final sample.

The subjects were placed into eight groups of 30 subjects each according to the variables of type of class placement, grade level, and sex. (see Table I). The total number of special class male students surveyed was 60. The total number of special class female students was 60. The total number of special class students included in the study was 120. The total number of male students in regular class settings included in the study was 60. The number of female students in regular class settings surveyed was 60. The total number of children in regular class settings included in the study was 120.

As will be outlined in the section dealing with the description of the instrument, the SSST differed from many of the other self-concept instruments in that it yielded a series of scores on several different dimensions of self-concept

TABLE 1

Number of Subjects by Grade Level, Sex, and Type of Class Placement

	Special Class Setting		Regular Class Setting		
Grade Level:	Male	Female	Male	Female	Totals
Level I	30	30	30	30	120
Level II	30	30	30	30	120
Totals	60	60	60	60	240

rather than culminating in a single index of some global dimension. The writer was interested in comparing the subjects on the basis of overall or total self-concept as well as on the nine subtest scores. Therefore, total scores for subjects were calculated on the basis of whether a high or low score on each of the subtests was indicative of a favourable self-concept. A high score on the subtests Self-esteem, Social Interest or Dependency, and Complexity was considered indicative of a favourable self-concept. A low score on the subtests Identification with Mother, Identification with Father, Identification with Friends, and Identification with Teacher, Individuation and Realism for Size was considered indicative of a favourable self-concept.

The total self-concept was calculated by the following formula:

$$\text{Total Self-Concept Score} = (48\text{-EST}) + (4\text{-DEP}) + (12\text{-COM}) + \text{MO} + \text{FA} + \text{FR} + \text{TCH} + \text{IND} + \text{REAL}$$

EST = Self-Esteem

DEP = Dependency or Social Interest

COM = Complexity

MO = Identification with Mother

FA = Identification with Father

FR = Identification with Friends

TCH = Identification with Teacher

IND = Individuation

REAL = Realism for Size

The lower the Total Self-Concept Score the more favourable the child's self-concept.

The Questions to test the comparison of subjects overall self-concept were hypotheses I to VII. The questions to test the comparison of subjects on the nine subtest scores were hypotheses VIII to XIV. All questions investigated by this study were stated in the null hypothesis form.

Hypothesis I: No significant difference will exist between total scores on the SSST as they relate to type of class placement, grade level, and sex.

Hypothesis II: No significant difference will exist between total scores on the SSST as they relate to type of class placement and grade level.

Hypothesis III: No significant difference will exist between total scores on the SSST as they relate to grade level and sex.

Hypothesis IV: No significant difference will exist between total scores on the SSST as they relate to type of class placement and sex.

Hypothesis V: No significant difference will exist between the total scores of male and female students on the SSST.

Hypothesis VI: No significant difference will exist between the total scores of grade level I and grade level II students on the SSST.

Hypothesis VII: No significant difference will exist between the total scores of regular class students and special class students on the SSST.

Hypothesis VIII: No significant differences will exist between the results of the nine subtest scores on the SSST as they relate to type of class placement, grade level, and sex.

Hypothesis IX: No significant differences will exist between the results of the nine subtest scores on the SSST as they relate to type of class placement and grade level.

Hypothesis X: No significant differences will exist between the results of the nine subtest scores on the SSST as they relate to grade level and sex.

Hypothesis XI: No significant differences will exist between the results of the nine subtest scores on the SSST as they relate to type of class placement and sex.

Hypothesis XII: No significant differences will exist between male and female students and the results of their nine subtest scores on the SSST.

Hypothesis XIII: No significant differences will exist between grade level I and grade level II students and the results of their nine subtest scores on the SSST.

Hypothesis XIV: No significant differences will exist between regular class students and special class students and the results of their nine subtest scores on the SSST.

DESCRIPTION OF INSTRUMENTATION

The Self-Social Symbols Test (SSST) consists of a booklet containing a series of geometric designs. Circles and other figures were used to represent the self and other persons of importance. The subjects were requested to respond to each item by choosing one of the figures in each series to represent the self or some other person. The SSST yields nine subtest scores.

A discussion concerning the rationale and theoretical framework of the instrument was included in this section. Also, each of the individual tasks of the SSST were discussed. The latter discussion included a description of the operations invovled in each task and an explanation of the theoretical interpretation of the meaning of each. (See Appendix A for a copy of the SSST). It should be pointed out that the material presented in this section is not the author's and can be viewed in its entirety in the SSST manual.[1]

Theoretical Background and Rationale

The SSST was a new approach to the measurement of self-concept. The method attempted to eliminate the inadequacies and short-comings which Wylie[2] concluded were inherent in

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[1] R. C. Ziller, B. H. Long, and E. H. Henderson, Manual for the Self-Social Symbols Method (Unpublished test, 1965).

[2] Ruth C. Wylie, The Self-Concept (Lincoln, Nebraska: University of Nebraska Press, 1961), p.114.

instruments which were used in previous studies.

The first and basic underlying assumption behind the SSST was that it was also possible for a person to communicate his self-concept nonverbally. It was also assumed that the various arrangements of symbols in the SSST booklet were analogous to the self-other relationships which a person experienced in his life space. The findings of Ziller and Long[3] and Kuethe[4] supported this latter assumption and also provided support for the validity of various tasks found within the SSST.

Another assumption underlying this method was that the particular spatial arrangements indicated by the subjects in each of the tasks are interpretable and that each of the nonverbal responses have common and easily translatable meanings. The research findings of Heider[5] and Michotte[6] provided empirical support for this assumption of common meanings. They found agreement among subjects about the meanings and motives

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[3] R. C. Ziller and Barbara H. Long, Self-Social Constructs and Geographic Mobility (Paper presented EPA meeting, Atlantic City, N.J., 1965).

[4] J. L. Kuethe, "Prejudice and Aggression: A study of Specific Social Schemata," Perceptual and Motor Skills, XVIII (1964), pp.107-115.

[5] F. Heider, The Psychology of Interpersonal Relations (New York: John Milley and Sons, Inc., 1958), p.31.

[6] A. Michotte, La Perception de la Causalite, (2nd Ed.)(Louvain: Publications Universitaires de Louvain, 1954).

associated with stimulus objects arranged and moved in particular ways which seemed to suggest a language of spatial arrangements which was possible to read.

The SSST method also assumed that the non-verbal approach to the measurement of self-concept would result in a more valid profile of the individual's self-concept than previous verbal approaches. The reasoning behind this preference for the non-verbal test was found in the weaknesses contained in the verbal self-reports. For example, it was felt that verbal tests were influenced by such things as verbal fluency and vocabulary. Also, since word meanings vary from culture to culture[7] and even from individual to individual,[8] unequivocal interpretations of verbal self-descriptions were quite difficult. Furthermore, another weakness inherent in the verbal self-concept instruments was that subjects may respond to the tasks in a socially desirable manner rather than according to their own true feelings. The SSST method was an attempt to eliminate some of these difficulties.

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[7] E. P. Hollander, Principles and Methods of Social Psychology (New York: Oxford University Press, 1967), p.246.

[8] J. C. Loehlin, "Word Meaning and Self-Description," Journal of Abnormal and Social Psychology, LXII (1961), pp. 28-34.

It seemed that there was an obvious advantage to this method of self-concept measurement in that no reading ability was required. The subject was not handicapped merely because he did not have the necessary reading skills to understand the questions contained in the test. This would be especially true for the slow learning or retarded children. Also, the SSST method resulted in a series of scores on several different dimensions of self-concept rather than culminating in a single index of some global dimension.

THE TASKS: DESCRIPTIONS AND THEORETICAL MEANINGS

Self-esteem

Self-esteem was thought to be a person's perception of his worth. It was assumed to develop in a social context and accrue from an accumulation of self-other comparisons on an evaluative dimension.

There were two basic types of tasks used to measure self-esteem. Both tasks were designed along the same principles. The tasks were vertical esteem, which was found to be most effective with young pre-reading children, and horizontal esteem, appropriate for children once they have learned to read, as well as for older subjects. When used with the same subjects, both vertical and horizontal esteem related positively and significantly with each other.

The task measuring vertical esteem consisted of a column of five or six circles each of which represented a child. The subject was instructed to select one of the circles

to stand for himself and place his initial in it. Higher self-esteem was associated with a higher position, with scores ranging from one to six from bottom to top. The research results of Desoto, London, and Handel[9] provided empirical support for the rationale behind this task. They reported an association between the high-low physical dimension and the "good-bad" semantic dimension.

The procedure used with young children for measuring horizontal esteem was the same. Six circles were arranged in a row and the child selected one to be himself. The scores ranged from one to six from right to left with the higher score indicating higher esteem. The validity of the assumption associating value with a left position was supported by Morgan's[10] finding that subjects attribute greater importance to a stimulus in the extreme left position. This association was probably a function of the cultural norm (found in numerous culture) of beginning rows of reading and writing on the left. The higher the total score on these tasks the higher the self-esteem.

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[9] C. B. Desoto, M. London, and S. Handel, "Social Reasoning and Spatial Paralogic", Journal of Personality and Social Psychology, II (1965), pp.513-521.

[10] J. J. Morgan, "Effects of Non-Rational Factors in Inductive Reasoning," Journal of Experimental Psychology, XXXIV (1944), pp.159-168.

Social Interest or Dependency

Social interest or dependency was thought to be the degree to which a person perceived himself as a part of a group of others, as opposed to a perception of the self as an individual.

The concept of social interest originated with Adler[11] and was considered by him to be a trait of central importance for the personality. He suggested that the range of a person's affectionate interest and concern is what constitutes social interest, and that low social interest implies an isolation of the person and "a private view of the world." Further, when a person is high in social interest, one may infer that he perceives himself as part of such a group and is responsive to its demands. Such social tendencies, which presumably stem from affiliative motives, may be related to specific needs for social comparison[12] or may involve a more general enjoyment of the "give and take" of social interaction.

In the SSST approach, the task which was used for measuring social interest consisted of three circles representing people (parents, teachers, and friends) arranged at the

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[11] A. Adler, The Practice and Theory of Individual Psychology (New York: Harcourt, Brace, and Co., 1927).

[12] Stanley Schacter, The Psychology of Affiliation (Stanford, California: Stanford University Press, 1959), p.20.

apexes of an imaginary equilateral triangle. The subject was instructed to draw a circle to represent himself anywhere on the page. Placement within or in close vicinity of the triangle of others was interpreted as social interest or dependency and scored as one. Otherwise, a circle representing self drawn outside the triangle was scored as zero. The higher the total score on these tasks, the higher the social interest.

Identification

A number of theorists suggested that the young child's identification with his parents serves as the basis of socialization as well as of the development of a functional self-concept. This process was presumed to lead to the use of the parent as a model, with much learning occurring through imitation.

Although these ideas have received general acceptance, there remains disagreement about the nature and dynamics of this process. In the SSST method, Parsons'[13] definition, which had an advantage of simplicity, was accepted. According to Parsons, identification is the placement of the self in a "we" category with the other person. He also suggested that

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[13] T. Parsons, "Family Structure and the Socialization of the Child," Family, Socialization, and Interaction Processes ed. T. Parsons and R. F. Bales (Glencoe, III: The Free Press, 1955), pp.91-94.

such patterns of identification gradually expand as the young child matures. The SSST method used separate tasks to measure identification with mother, father, teacher and friend. Each of these tasks consisted of a row of circles with the end circle, alternately on the left or right, representing the particular other person and indicated by a letter or picture. The subject was instructed to select one of the other circles to represent himself. The tasks were scored one to six from near to far from the other person. The lower the score, the lower was the distance between the other and self and thus the greater was the identification. This was supported by Heider's[14] idea that the placement of two objects together unites them, and in this case was the "we" suggested by Parsons.

Individuation or Minority Identification

These terms served to describe a single idea which was whether the person thinks of himself as similar to or different from the majority of other children in his environment.

In general, majority identification was presumed to reflect a degree of security accompanied by depersonalization, while minority identification involved less security but greater personalization. As suggested by Ziller,[15] majority and minority identification may be alternating mechanisms

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[14] F. Heider, op.cit.

[15] R. C. Ziller, "Individuation and Socialization", Human Relation, XVII (1964), pp.341-360.

rather than mutually exclusive. Although minority identification may facilitate ego identity, majority identification may permit a useful and comfortable pause or plateau preparatory to self organization.

The SSST approach measured this construct of individuation or minority identification by presenting a series of circles, a majority of one kind, (shaded, plain or triangles, squares) the minority another. The subject was then asked to choose a circle or symbol to represent the self from an array including one of each kind at the side of the page. To control for perference for a particular symbol, minority and majority symbols were alternated throughout the test. The choice of a symbol which was different from the majority of symbols presented was scored as one. The higher the score on the tasks which measured this particular trait, the higher the minority identification or individuation.

Complexity

The complexity of the self concerned the degree of differentiation of the self-concept. Lewin[16] more specifically defined complexity as the number of parts comprising the whole. It was thought that as the child develops and encounters an increasing number of diverse self-other relationships, these

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[16] K. Lewin, Principles of Topological Psychology (New York: McGraw, 1936), pp.187-188.

continuing comparisons as well as development in intellectual capacity will over time result in a more complex conception of self. A person with a more complex conception of self was thought to be less likely to be disturbed by new experiences which may seem incongruent with his present self-system.[17]

Complexity in the SSST approach was operationally defined as the selection of a more complex design to represent the self. The designs presented on each task varied in complexity and were derived from the work of Glanzer[18] who had subjects rate a collection of designs along a simple to complex dimension. He reported a high correlation between these ratings and the number of words needed to describe the designs. In this approach the choice of a more complex design was interpreted as greater complexity for the self. The more complex design was accorded a higher score, with the higher scores indicating greater complexity.

Realism for Size

This construct was used to test the hypothesis of how realistic the person's conception of self may be. A correspond-

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[17] R. C. Ziller, Joan Hagey, Mary D. Smith, and Barbara H. Long, "Self-Esteem: A Self-Social Construct," Journal of Consulting and Clinical Psychology, XXXIII (1969), pp.84-95.

[18] J. Glanzer and W. H. Clark, "Accuracy of Perceptual Recall: An Analysis of Organization," Journal of Verbal Learning and Verbal Behavior, I (1963), pp.289-299.

ence between physical self and the self-concept was considered to be realistic and may indicate an acceptance of the physical self as opposed to self-dissatisfaction. In relation to size, the concept of realism seemed most appropriate for young children, since their size was invariably small when compared to that of adults.

In the tasks that measured realism for size, the subject was presented with a series of circles of three sizes. First, the subject was asked to select one circle to be his father and then another one to be himself. Self-selection was always made relative to the selection of a symbol for an adult. The circles were scored one to three points for those representing the child, from smallest to largest. Higher scores represented less realism.

Reliability and Validity of the Instrument

The authors of the SSST method reported reliability studies done on the various tests. For this particular test, a sample of 100 third-graders produced split-half reliabilities on the various subtests ranging from .47 to .79 with a median of .63. The construct validity of the instrument was established by comparing the non-verbal responses on the tasks to verbal self-descriptions. Also, validity was established on the basis of evidence furnished by studies relevant to the assmuptions involved in the various tasks.

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[19] R. C. Ziller, H. Long and E. H. Henderson, Manual for the Self-Social Symbols Test (Unpublished test, 1965), pp.21-48.

STATISTICAL TREATMENT OF DATA

The SSST was administered to the subjects in groups. It was administered to special class subjects in groups of approximately 10. The SSST was administered to regular class subjects in groups of approximately 25. Testing time ranged from 30 to 50 minutes for each testing period. The SSST was administered by the investigator.

The statistical methods used to analyze the data were the multivariate and univariate analysis of variance (MANOVA)[20,21] the F statistic, and the t-test. The t-test was used to test differences between means of groups. The hypotheses were tested for rejection or acceptance at the alpha 0.05 level of significance. The data were computer analyzed by the Newfoundland and Labrador Computer Services Limited.

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[20] William W. Cooley and Paul R. Lohnes, Multivariate Data Analysis (New York: John Wiley and Sons, Inc., 1971), pp.223-241.

[21] Elliot Cramer and Darrell R. Bock, "Multivariate Analysis", Review of Educational Research, XXXVI (1966), pp.604-615.

Chapter 4

DATA ANALYSIS AND RESULTS

The subjects for the study were selected children from within the Roman Catholic School Board District for St. John's. A total of 401 children were administered the Self-Social Symbols Test (SSST). Using random sampling procedures, 240 subjects were chosen as the population for the study.

After subjects were deleted from the sample due to incomplete responses, multiple responses to items, incomplete personal data, and their chronological ages not falling within the age ranges defined for their respective grade levels, the remaining subjects were placed into 1 of 8 groups according to the independent variables of type of class placement, grade level, and sex. In those groups where there were more subjects than the desired 30 subjects, the subjects were assigned numbers and selection of the 30 subjects for the group was made using a table of random numbers.[1]

This chapter considered the statistical analysis of the results of the study in relation to the fourteen hypotheses

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[1] John T. Roscoe, Fundamental Research Statistics for the Behavioral Sciences (New York: Holt, Rinehart and Winston, Inc., 1969), pp.286-287.

presented in Chapter 3. Multivariate techniques were utilized in the analysis. To test hypotheses one to seven of no significant differences among various groups of students and between groups of students, the total scores on the instrument (SSST) were analyzed using the univariate analysis of variance. To test hypotheses eight to fourteen of no significant differences among various groups of students and between groups of students, the nine subtest scores on the instrument (SSST) were analyzed using the multivariate analysis of variance. If the multivariate F test was significant, univariate F tests for each subtest were reported to indicate there significant differences existed. Both the univariate F tests and the multivariate F tests used the alpha 0.05 level of significance as the basis for acceptance or rejection of the null hypotheses. The data were computer analyzed by the Newfoundland and Labrador Computer Services Limited.

UNIVARIATE ANALYSIS OF STUDENTS' SCORES FOR TESTING HYPOTHESES I TO VII

All students involved were asked to complete a test, Self-Social Symbols Test, consisting of 46 tasks contributing to nine subtest scores. From the nine subtest scores, a total self-concept score was calculated and was the dependent variable in the analysis for hypotheses one to seven. The procedure used to calculate the total score was outlined in Chapter 3 (see page 38). In relation to the students' total score, the effect of three independent variables; (1) type of class placement, (2) grade level, and, sex were investigated. The

independent variables were referred to as factors throughout the analysis and discussion of results.

The first null hypothesis was retained as no significant difference existed between total scores on the SSST as they related to type of class placement, grade level, and sex. The univariate F ratio of 3.1315 for hypothesis I was not significant at the alpha 0.05 level of significance. (See Table II). Therefore, it was concluded that the three-factor interaction of type of class placement, grade level, and sex had no effect on the students' total scores on the SSST.

The second null hypothesis postulated that no significant difference would exist between total scores on the SSST as they related to type of class placement and grade level. This hypothesis was also retained. The univariate F ratio of 0.0526 for hypothesis II was not significant at the alpha 0.05 level of significance. (See Table II). Thus, it was concluded that the two-factor interaction of type of class placement and grade level had no effect on the students' total scores on the SSST.

The third null hypothesis was retained in that no significant difference existed between total scores on the SSST as they related to grade level and sex. The univariate F ratio of 0.8723 for hypothesis III was not significant at the alpha 0.05 level of significance. (See Table II). Hence, it was concluded that the two-factor interaction of grade level and sex had no effect on the students' total scores on the SSST.

TABLE II

Analysis of Variance for Comparison of Students' Total Scores Grouped According to Type of Class Placement, Grade Level, and Sex

		Univariate F tests			
Source of Variation	Variable	Hypothesis Mean Square	F*	P less than	Conclusions
1. T x L x S	Total Score	194.3998	3.1315	0.0781	Not Significant
2. T x L	Total Score	3.2667	0.0526	0.8188	Not Significant
3. L x S	Total Score	54.1490	0.8723	0.3514	Not Significant
4. T x S	Total Score	30.8170	0.4964	0.4819	Not Significant
5. S	Total Score	224.2654	3.6126	0.0586	Not Significant
6. L	Total Score	0.8167	0.0132	0.9088	Not Significant
7. T	Total Score	104.0159	1.6756	0.1968	Not Significant

T = type of class placement, 2 levels, 1 = special class setting, and 2 = regular class setting.

L = grade level, 2 levels, 1 = grade level I, and 2 = grade level II.

S = sex of students, 2 levels, 1 = male, and 2 = female.

*df for hypothesis = 1, df for error = 232.

N = 240

Hypothesis four, that no significant differences would exist between total scores on the SSST as they related to type of class placement and sex, was also retained. The univariate F ratio of 0.4964 for hypothesis IV was not significant as the alpha 0.05 level of significance. (See Table II). Therefore, it was concluded that the two factor interaction of type of class placement and sex had no effect on the students' total scores the SSST.

The fifth null hypothesis was retained as no significant difference existed between the total scores of male and female students on the SSST. The univariate F ratio of 3.6126 for hypothesis V was not significant at the alpha 0.05 level of significance. (See Table II). Thus, it was concluded that the main effect of sex had no effect on the students' total scores on the SSST.

The sixth null hypothesis postulated that no significant difference would exist between the total scores of grade level I and grade level II students on the SSST. This hypothesis was retained. The univariate F ratio of 0.0132 for hypothesis VI was not significant at the alpha 0.05 level of significance. (See Table II). Hence, it was concluded that the main effect of the factor grade level had no effect on the students' total scores on the SSST.

The seventh null hypothesis is retained in that no significant difference existed between the total scores of regular class students and special class students on the SSST.

The univariate F ratio of 1.6756 for hypothesis VII was not significant at the alpha 0.05 level of significance. (See Table II). Therefore, it was concluded that the main effect of the factor type of class placement had no effect on the student's total scores on the SSST.

In summary, in relation to the dependent variable of students' total self-concept scores on the SSST the effect of three independent variables or factors, (1) type of class placement, (2) grade level, and, (3) sex were investigated. Null hypotheses one to seven postulated that no significant differences would exist between total scores as they were effected by the three main factors and interactions of the three factors. The univariate analysis of variance was used to test the null hypotheses of no mean differences between groups of students on the dependent variable of total score. F ratios were computed for the univariate tests of equality of group mean vectors. The univariate F tests for one three-factor interaction, three two-factor interactions and three main effects differences are reported in Table II.

Examination of Table II reveals that the univariate F ratios were not significant at the alpha 0.05 level of significance. It was concluded that there were no significant three-factor interaction or two-factor interactions between the three factors examined, type of class placement, grade level, and sex. Also, there were no significant main effects differences for either of these factors. Thus, it was concluded that type of class placement, grade level, and sex had no effect on the students' total scores on the SSST.

MULTIVARIATE ANALYSIS OF STUDENTS' SCORES FOR TESTING HYPOTHESIS VIII TO XIV

Student scores on the SSST consisted of nine subtest scores. These nine subtest scores were the dependent variables used for testing hypotheses eight to fourteen. In the analysis of student scores three factors were investigated to determine if any of these affected student responses on the nine subtests. Possible interactions among factors were also investigated. The three factors were (1) type of class placement, (2) grade level, and (3) sex. A summary of the number of students involved in the study according to type of class placement, grade level, and sex is given in Table I on page 37.

Table III presents the results of the multivariate analysis of variance that was carried out for hypotheses eight to fourteen of the student subtest scores. In this table only the multivariate F tests were reported.

The eighth null hypothesis was retained as no significant differences existed between the results of the nine subtest scores on the SSST as they related to type of class placement, grade level and sex. Examination of Table III reveals that the multivariate F ratio of 1.1697 for hypothesis VIII was not significant at the alpha 0.05 level of significance. Therefore, it was concluded that the three-factor interaction of the factors type of class placement, grade level and sex had no effect on the students' subtest

TABLE III

Analysis of variance for Comparison of Student Scores Grouped According to Type of Class Placement, Grade Level, and Sex.

Multivariate F tests

Source of Variation	Variables	df for Hypothesis	df for Error	F	P less than	Conclusions
1. T x L x S	All Nine	9.000	224.000	1.1697	0.3154	Not Significant
2. T x L	All Nine	9.000	224.000	1.0589	0.3942	Not Significant
3. L x S	All Nine	9.000	224.000	2.4560	0.0110	Significant, 0.05*
4. T x S	All Nine	9.000	224.000	1.3997	0.1893	Not Significant
5. S	All Nine	9.000	224.000	5.7856	0.0001	Significant, 0.05**
6. L	All Nine	9.000	224.000	0.7671	0.6472	Not Significant
7. T	All Nine	9.000	224.000	6.4613	0.001	Significant, 0.05***

T = type of class placement, 2 levels, 1 = special class setting, and 2 = regular class setting.

L = grade level, 2 level, 1 = grade level I, and 2 - grade level II

S = sex of students, 2 levels, 1 = male, and 2 = female

* see Table IV for univariate F tests

** see Table V for univariate F tests

*** see Table VII for univariate F tests

scores on the SSST. Since the multivariate F test was not significant ($P > 0.05$), the univariate F tests are not reported.

The ninth null hypothesis postulated that no significant differences would exist between the results of the nine subtest scores on the SSST as they related to type of class placement and grade level. This hypothesis was also retained. Examination of Table III reveals that the multivariate F ratio of 1.0589 for hypothesis IX was not significant at the 0.05 level. Thus, it was concluded that the two-factor interaction of type of class placement and grade level had no effect on the student's subtest scores on the SSST. Since the multivariate F test was not significant ($P > 0.05$), the univariate F tests are not reported.

The tenth null hypothesis that no significant differences existed between the results of the nine subtest scores on the SSST as they related to grade level and sex was rejected. Examination of Table III reveals that the multivariate F ratio of 2.4560 for hypothesis X was significant at the alpha 0.05 level. Therefore, it was concluded that the two-factor interaction of grade level and sex did have an effect on the students' subtest scores on the instrument, SSST. The null hypothesis of no significant differences between groups of students' subtest scores is rejected.

Univariate F tests for the significant two-factor interaction of grade level and sex are reported in Table IV. Examination of Table IV reveals a significant interaction

TABLE IV

Analysis of Variance for Comparison of Student Scores Grouped According to Grade Level and Sex.

Source of Variation	Variables	df for Hypothesis	df for Error	F	P less than	Conclusions
Multivariate F test						
1. L x S	All Nine	9.000	224.000	2.4560	0.0110	Significant, 0.05
Univariate F tests						
Variables		Hypothesis Mean Square		F*	P less than	Conclusions
1. Self-Esteem		54.1490		0.8723	0.3514	Not Significant
2. Dependency		3.5042		1.9392	0.1651	Not Significant
3. Identification with Mother		15.0000		0.7050	0.4021	Not Significant
4. Identification with Father		15.0001		0.6298	0.4284	Not Significant
5. Identification with Friends		82.8371		3.7313	0.0547	Not Significant
6. Identification with Teacher		33.7498		0.9744	0.3247	Not Significant
7. Complexity		2.0167		0.4239	0.5157	Not Significant
8. Individuation		0.6000		0.4464	0.5048	Not Significant
9. Realism for Size		33.0038		6.6547	0.0106	Significant, 0.05

L = grade level, 2 levels, 1 = grade level I, and 2 = grade level II.

S = sex of students, 2 levels, 1 = male, and 2 = female.

* degress of freedom for variables 1 - 9 = (1,232).

($P < 0.01$) between grade level and sex for the subtest variable reailism for size. For the interaction of grade level and sex for this variable, a t-test was used to investigate where the significant difference actually existed.[2] The results of the t-test investigation showed that there were no differences between the means of students' scores grouped according to grade level and sex significant at the alpha 0.05 level. However, since the multivariate and univariate F tests were significant ($P < 0.05$), it was felt that the means of the groups should be considered to determine the direction of the differences. An examination of the means showed that grade level I males ($N=60$, $\bar{x}=9.083$) had the highest mean score on the realism for size subtest. Grade Level II females ($N=60$, $\bar{x}=8.783$) had the next highest mean score with grade level I females ($N=60$, $\bar{x}=8.350$) and grade level II males ($N=60$, $\bar{x}=8.033$) following in that order.

The eleventh null hypothesis was retained as no significant differences existed between the results of the nine subtest scores on the SSST as they related to type of class placement and sex. Examination of Table III reveals that the multivariate F ratio of 1.3997 for hypothesis XI was not sig-

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[2] Gene V. Glass and Julian C. Stanley, Statistical Methods in Education and Psychology (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1970), pp.383-384.

nificant at the alpha 0.05 level of significance. Thus, it was concluded that the two-factor interaction of type of class placement and sex had no effect on the students' subtest scores on the SSST. Since the multivariate F test is not significant ($P > 0.05$), the univariateF tests are not reported.

Null hypothesis twelve that no significance differences existed between male and female students and the results of their nine subtest scores on the SSST is rejected. Examination of Table III reveals that the multivariate F ratio of 5.7856 for hypothesis XII is significant at the 0.05 level. Therefore, it was concluded that the main effect of sec did have an effect on the students' subtest scores on the SSST. The null hypothesis of no difference between groups of students' subtest scores is rejected.

Univariate F tests for student scores grouped according to sex are reported in Table V. Examination of Table V reveals that the main factor of sex did effect students' scores on the following subtests: (1) Identification with Father ($P < 0.01$), (2) Identification with Friends ($P < 0.01$), and (3) Identification with Teacher ($P < 0.0001$).

Table VI presents the means of students' scores grouped according to the main factor sex. Examination of Table VI reveals that females (N=120) scored significantly higher on the identification with father subtest ($\bar{x}$=10.49) and the identification with friends subtest ($\bar{x}$=11.19) than males (N=120) scored on the identification with father ($\bar{x}$=8.942)

TABLE V

Analysis of Variance for Comparison of Student Scores Grouped According to Sex.

Multivariate F test

Source of Variation	Variables	df for Hypothesis	df for Error	F	P less than	Conclusions
1. S	All Nine	9.000	224.000	5.7856	0.0001	Significant, 0.05

Univariate F tests

Variables	Hypothesis Mean Square	F*	P less than	Conclusions
1. Self-Esteem	224.2654	3.6126	0.0586	Not Significant
2. Dependency	6.3375	3.5071	0.0624	Not Significant
3. Identification with Mother	18.1500	0.8531	0.3567	Not Significant
4. Identification with Father	144.1487	6.0518	0.0147	Significant, 0.05
5. Identification with Friends	133.5029	6.0134	0.0150	Significant, 0.05
6. Identification with Teacher	653.3977	18.8643	0.0001	Significant, 0.05
7. Complexity	9.6000	2.0179	0.1568	Not Significant
8. Individuation	0.8167	0.6077	0.4366	Not Significant
9. Realism for Size	0.0042	0.0008	0.9770	Not Significant

S = sex of students, 2 levels, 1 = male, and 2 = female.

* degress of freedom for variables 1 - 9 = (1,232).

TABLE VI

Means of Student Scores Grouped According to Sex

Variables	$\bar{x}1$	$\bar{x}2$
1. Self-Esteem	32.87	30.93
2. Dependency	2.150	1.825
3. Identification with Mother	8.867	9.417
4. Identification with Father	8.942	10.49*
5. Identification with Friends	9.700	11.19*
6. Identification with Teacher	12.74	9.442*
7. Complexity	7.833	7.433
8. Individuation	1.575	1.458
9. Realism for Size	8.558	8.567

$\bar{x}1$ = combined means of males

$\bar{x}2$ = combined means of females

* Significant difference between the means of males and females on these variables according to the univariate F tests.

and identification with friends ($\bar{x}$=9.700) subtests. Males scored significantly higher on the identification with teacher subtest ($\bar{x}$=12.74) than did females ($\bar{x}$=9.442).

Null hypothesis thirteen is retained as no significant differences existed between grade level I and grade level II students and the results of their nine subtest scores on the SSST. Examination of Table III reveals that the multivariate F ratio of 0.7671 for hypothesis XIII was not significant at the 0.05 level. Thus, it was concluded that the main effect of the factor grade level had no effect on the students' subtest scores on the SSST. Since the multivariate F test was not significant ($P > 0.05$), the univariate F tests are not reported.

Null hypothesis fourteen that no significant differences existed between grade level I and grade level II students and the results of their nine subtest scores on the SSST is rejected. Examination of Table III reveals that the multivariate F ratio of 6.4613 for hypothesis XIV is significant at the alpha 0.05 level of significance. Hence, it was concluded that the main effect of the factor type of class placement did have an effect on the students' subtest scores on the instrument, SSST. The null hypothesis of no difference between groups of students subtest scores is rejected.

Univariate F tests for student scores grouped according to type of class placement are reported in Table VII. Examination of Table VII reveals that the main factor of type of class placement did effect student scores on the following

TABLE VII

Analysis of Variance for Comparison of Student Scores Grouped According to Type of Class Placement

Source of Variation	Variables	df for Hypothesis	df for Error	F	P less than	Conclusions
Multivariate F test						
1. T	All Nine	9.000	224.000	6.4613	0.0001	Significant, 0.05
Univariate F tests						
Variables		Hypothesis Mean Square		F*	P less than	Conclusions
1. Self-Esteem		104.0159		1.6756	0.1968	Not Significant
2. Dependency		4.5375		2.5110	0.1144	Not Significant
3. Identification with Mother		331.3469		15.5733	0.0002	Significant, 0.05
4. Identification with Father		236.0160		9.9087	0.0019	Significant, 0.05
5. Identification with Friends		246.0367		11.0823	0.0011	Significant, 0.05
6. Identification with Teacher		72.5996		2.0960	0.1490	Not Significant
7. Complexity		2.0167		0.4239	0.5157	Not Significant
8. Individuation		9.6000		7.1430	0.0081	Significant, 0.05
9. Realism for Size		90.0368		18.1546	0.0001	Significant, 0.05

T = type of class placement, 2 levels, 1 = special class setting, and 2= regular class setting.

* degress of freedom for variables 1 - 9 = (1,232).

subtests: (1) Identification with Mother ($P < 0.002$); (2) Identification with Father ($P < 0.001$); (3) Identification with Friends ($P < 0.001$); (4) Individuation ($P < .008$), and, (5) Realism for Size ($P < 0.0001$).

Table VIII presents the means of students scores grouped according to the main factor type of class placement. Examination of Table VIII reveals that special class students had mean scores that were significantly higher than regular class students mean scores on all of the above five subtests.

In summary, the analysis of students' subtest scores consisted of a series of three-factor and two-factor analyses of variance for each of the nine dependent variables. The three main effects differences were also analyzed by the multivariate analysis of variance. The nature of multivariate analysis of variance allowed for the test of all nine variables simultaneously each time a three factor analysis was executed. As with the students' total scores, hypotheses eight to fourteen were tested at the alpha 0.05 level of significance. The multivariate F tests at the alpha 0.05 level of significance were taken as the basis for rejection of the null hypothesis of equality of group mean vectors for the various groups of students' subtest scores that were compared.

Table III presented the results of the multivariate analysis of variance that were carried out on the nine subtest scores (dependent variables) of the groups of students

TABLE VIII

Means of Student Scores Grouped According to Type of Class Placement.

Variables	$\bar{x}1$	$\bar{x}2$
1. Self-Esteem	32.56	31.24
2. Dependency	2.125	1.850
3. Identification with Mother	10.32	7.967*
4. Identification with Father	10.71	8.725*
5. Identification with Friends	11.46	9.433*
6. Identification with Teacher	11.64	10.54
7. Complexity	7.542	7.725
8. Individuation	1.717	1.317*
9. Realism for Size	9.175	7.950*

$\bar{x}1$ = combined means of special class students

$\bar{x}2$ = combined means of regular class students

* Significant difference between the means of special and regular class students on these variables or subtests according to the univariate F tests.

for hypotheses eight to fourteen. It was concluded that there was no significant ($P > 0.05$) three-factor interaction and only one significant ($P < 0.05$) two-factor interaction between the three factors examined. The significant two-factor interaction occurred between grade level and sex. An examination of the univariate F tests in Table IV revealed that the interaction of grade level and sex effected students' scores on one subtest, realism for size. The t-test showed that there were no differences between the means of students' scores grouped according to grade level and sex significant at the alpha 0.05 level. A consideration of the means showed the direction of the differences. The mean score of grade level I males on the realism for size subtest was higher than the mean scores of the other three groups.

Also, there were significant main effects differences for the factors sex and type of class placement. (See Table III). The univariate F tests for students' scores grouped according to sex (See Table V) revealed that the main factor of sex did effect students' subtest scores on the following subtests: (1) identification with father ($P < 0.01$); (2) identification with friends ($P < 0.01$); and, (3) identification with teacher ($P < 0.0001$). An examination of Table VI which presented the means of students' scores grouped according to the main factor sex revealed the direction of these differences.

The univariate F tests for students' scores grouped according to type of class placement (See Table VII) revealed that the main factor of type of class placement did effect

students' subtests scores on the following subtests: (1) identification with mother ($P < 0.0002$); (2) identification with father ($P < 0.001$); (3) identification with friends ($P < 0.001$); (4) individuation ($P < 0.008$); and, (5) realism for size ($P < 0.0001$). An examination of Table VIII which presented the means of students' scores grouped according to the main factor type of class placement revealed the direction of these differences.

Chapter 5

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

SUMMARY

The purpose of this study was to compare the self-concepts possessed by children in regular classroom settings and children in special classroom settings, children at different grade levels, and male and female children. The questions raised in the study were stated in the form of null hypotheses and were tested for significance using the multivariate and univariate analysis of variance, the F statistic, and the t-test. The hypotheses were tested for rejection or acceptance at the alpha 0.05 level of significance. The 240 randomly selected subjects were placed into 8 groups according to the variables of type of class placement, grade level, and sex. The subjects' self-concepts were assessed by the Nonverbal Self-Social Symbols Test.

CONCLUSIONS

The following conclusions were based upon the results of the statistical tests of the hypotheses which were formulated for this study and tested at the alpha 0.05 level of significance.

The results indicated that children placed in special class settings did not express significantly different self-

concepts than children placed in regular class settings when the total or overall self-concept was considered. The same results occurred when comparisons were made between children of different grade levels, that is, grade level I and grade level II and between male and female children. Furthermore, the results indicated that there were no significant interactions between the three factors examined, type of class placement, grade level, and sex.

When the students' nine subtest scores were considered in relation to the factors of type of class placement, grade level, and sex, grade level differences were not significantly different. However, the results indicated that the interaction of grade level and sex had an effect upon students' scores on one subtest, realism for size. The mean score of grade level I males was higher than the mean scores of the other three groups, grade level II females, grade level I females and grade level II males respectively. The higher mean score of grade level I males suggested that they were less realistic in the comparison of their size to that of adults than either of the other three groups. The difference in mean scores also suggested that grade level I males had a less realistic conception of self.

The results indicated that there were significant differences between male and female expressed self-concepts on three of the nine subtests, Identification with Father, Identification with Friends, and Identification with Teacher.

The self-concept differences suggested that females identified less with both father and friends than did males and that males identified less with teacher than did females.

Further, the results indicated that there were significant differences between special class children and regular class children expressed self-concepts on five of the nine subtests, Identification with Mother, Identification with Father, Identification with Friends, Individuation, and Realism for Size. The self-concept differences suggested that special class children identified less with mother, father, and friends and showed greater minority identification and were less realistic in the comparison of their size to that of adults and showed a less realistic conception of self than regular class students.

A variety of previously conducted studies were reported in Chapter 2. There was only one study with which this study could be compared without committing the same mistake of earlier investigators as identified by Wylie.[1] She stated that investigators of self-concept tended to generalize their findings to the findings of other investigators. She further stated that these generalizations or comparisons were in error. The reason for this error she attributed to the differences in research design as well as the differences in the instruments used to assess children's self-concept. Of all the studies related to self-concept found by this investigator, only the study con-

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[1] Ruth C. Wylie, The Self Concept (Lincoln: University of Nebraska Press, 1961), pp.6,39.

ducted by Bauer[2] utilized a similar basic research design and used the same instrumentation to assess self-concepts. Therefore, generalization of the findings of this study as it related to the body of knowledge of self-concept was limited to the study by Bauer. Even then, only a partial comparison could be made due to the differences in research design.

The two independent variables which both studies had in common were sex and type of class placement. The findings of Bauer's study confirmed his null hypothesis related to the main factor of sex. He found that significant differences existed between the sex of the subjects and the results of their nine subtest scores on the SSST.[3] However, the present study reported findings which indicated that there were significant differences between male and female expressed self-concepts on three of the nine subtests, Identification with Father, Identification with Friends, and Identification with Teacher. Further, the findings of Bauer's study did not support his null hypothesis related to the main factor of type of class placement. He found that significant differences existed between the type of class placement of the subjects and the results of three of their nine subtest scores on the

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[2] Bauer, Daryll, D. Jr. The Analysis of Self-Concept In Educable Mentally Retarded Children as Measured by the Self-Symbols Test. (Unpublished Doctor's dissertation, University of Virginia, 1970)

[3] Ibid., p.74.

SSST. Bauer's study found significantly lower self-concept scores and thus less favourable self-concepts for the children placed in the completely segregated special class programs. The significant differences were found on the subtests Identification with Mother, Identification with Father, and Identification with Friends.[4] The present study corroborated Bauer's findings in that this study found that children in special class settings did express significantly less favourable self-concepts on the subtests Identification with Mother, Identification with Father, and Identification with Friends. However, in addition, special class subjects expressed significantly less favourable self-concept on the subtests Individuation and Realism for Size.

A further comparison of the means of the groups used in both studies was not possible since Bauer did not include means or raw data in report of his findings.

RECOMMENDATIONS

Because this study was limited to children within the Roman Catholic School Board District for St. John's, generalizations are prohibited. This study should be replicated with other populations of special class subjects and subjects in regular class settings so that generalizations can be drawn concerning relationships of childrens' self-

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[4] Ibid., pp. 74-78.

concepts as effected by type of class placement, grade level, and sex. Although the variables such as type of class placement and sex appear to have an effect upon the self-concepts expressed by the respondents, these variables might not be significant with other populations. Also, further study should be directed toward an examination of the differences in results obtained by Bauer's study and the present study.

Further investigation should be directed to a comparison of self-concepts in relation to the variables of IQ, socio-economic status, and the strength of the relationships between parents, teachers, peers and the children studied. Efforts should be directed toward treatments and classroom organization and curricula to provide experiences which will foster the development of more positive self-concepts.

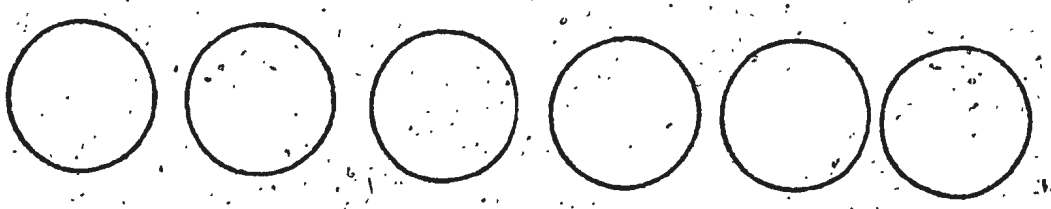
APPENDIXES

APPENDIX A

Self-Social Symbols Test:
Primary Form

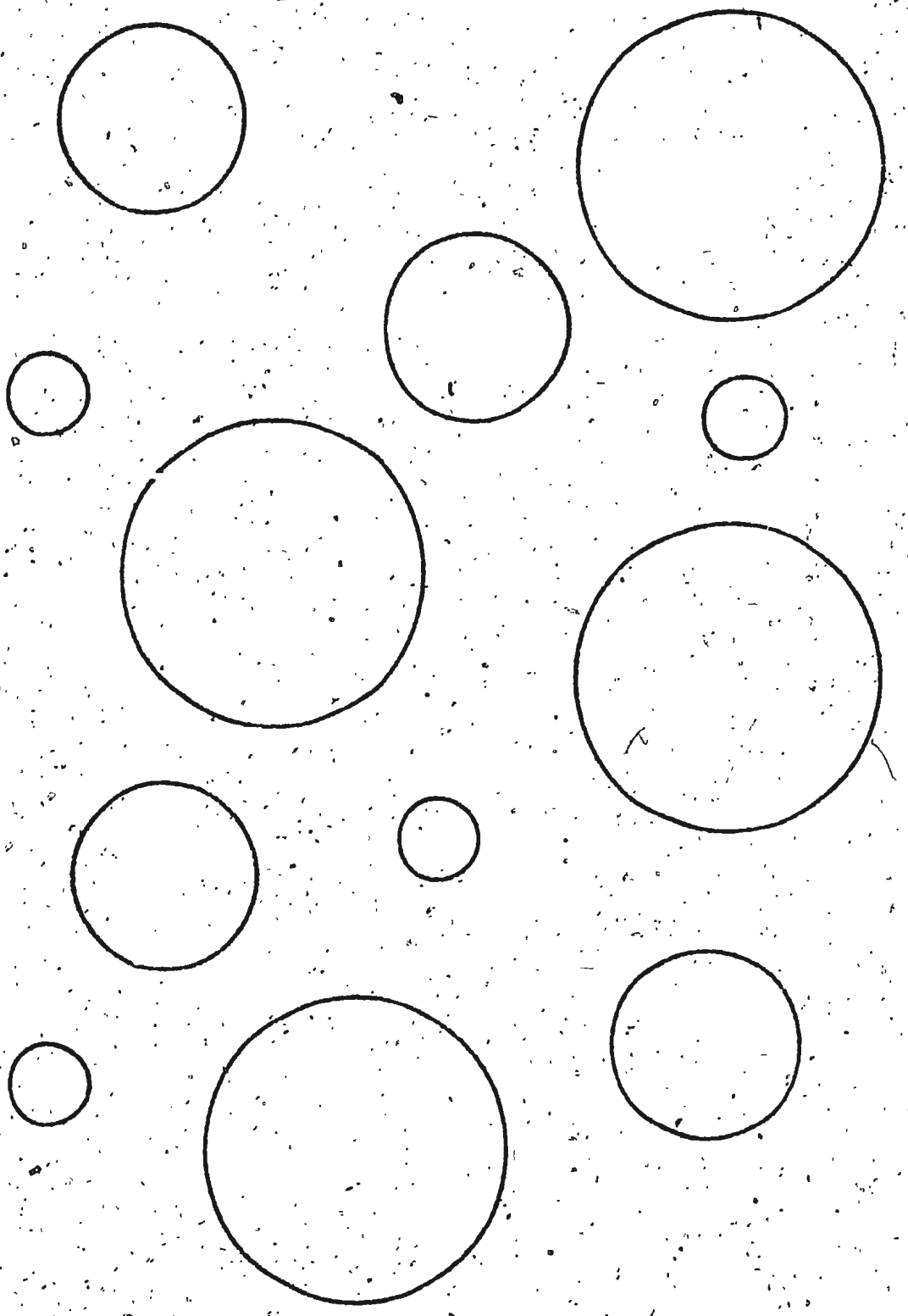
Note: The enclosed test was for the investigators use during administration. The actual instrument does not contain printed instructions.

1. "These circles stand for children. You choose one to be you. Write your initial in the circle you choose."



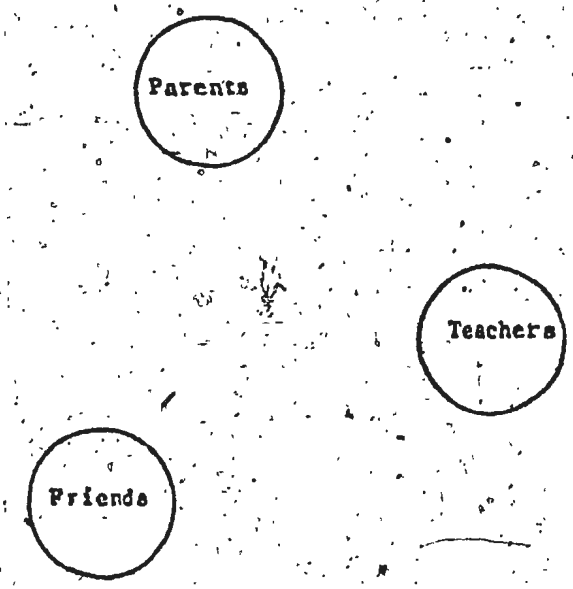
2. "The circle with the M stands for your mother. You choose one of the circles to be you. Put your initial in it."

3. "These circles are people. First pick one to be your Father. Put an F in it. Next pick one to be you. Put an S in it for yourself."

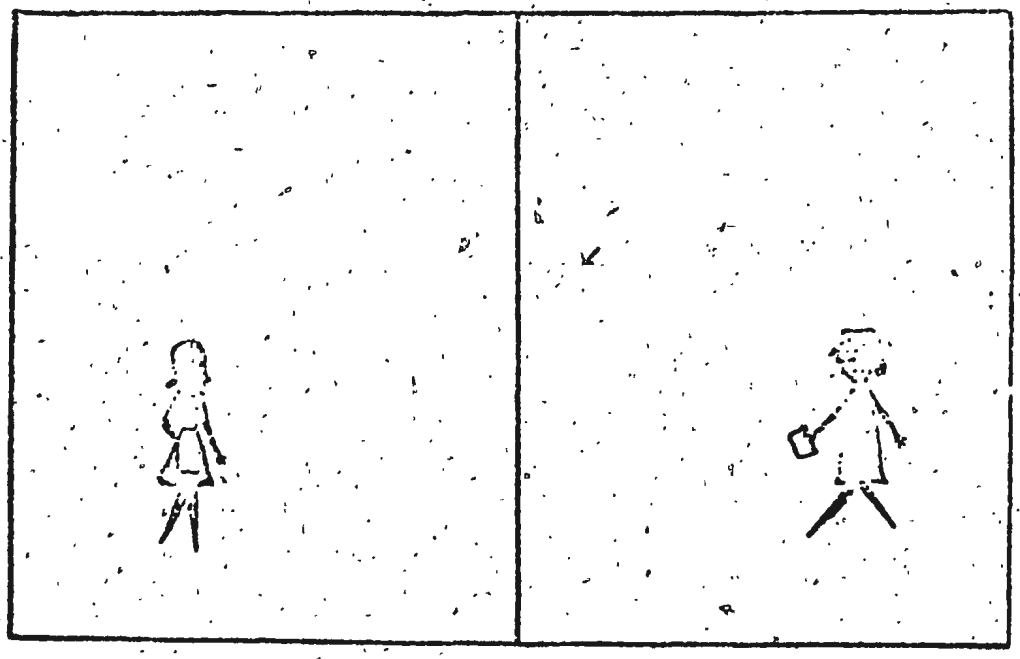


4. "The circle with the Fr in it stands for your Friend. You choose one of the other circles to be you. Put your initial in it."

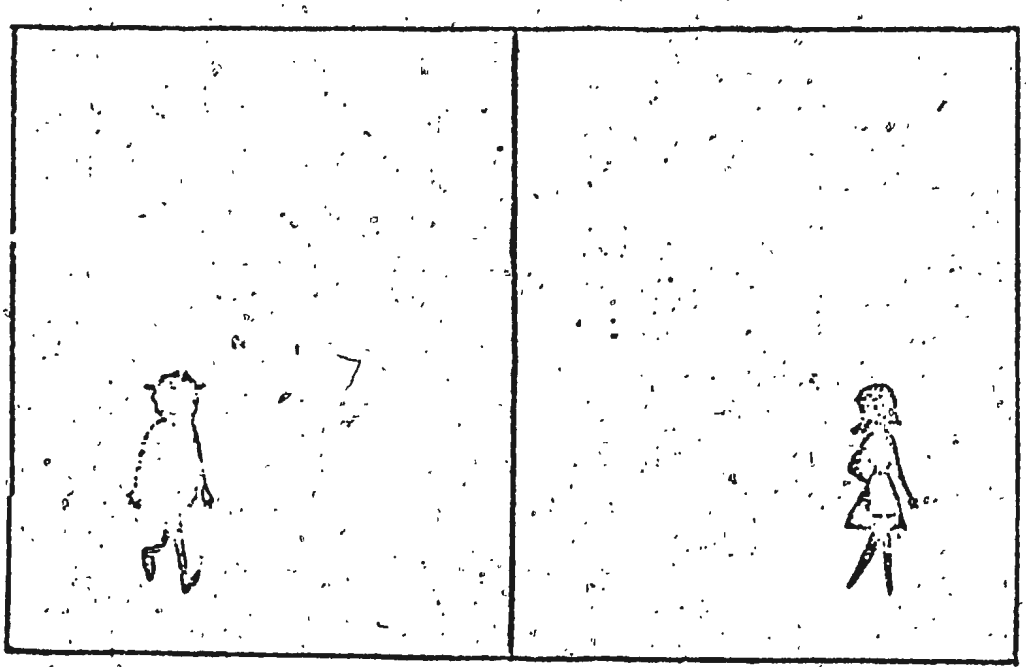
5. "These circles stand for your Parents, your Teacher, and your Friends. You draw a circle to stand for yourself anywhere you like on the page."



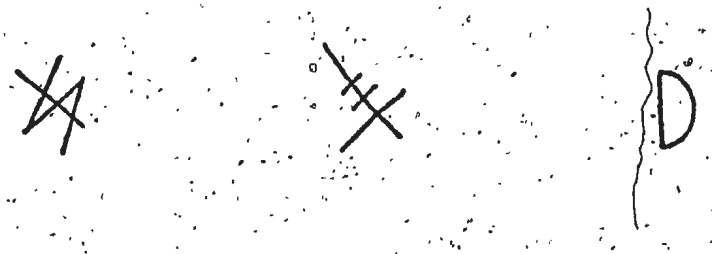
6. "Here are your Mother and your Teacher. You draw a circle to be you in one of the boxes, with whichever person you want."



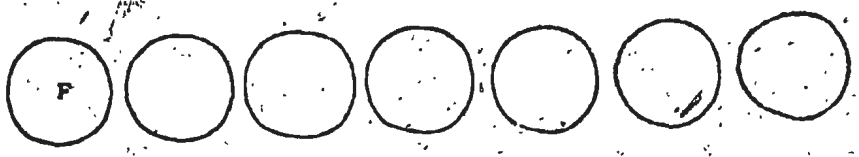
7. "Here are your Father and Mother. You draw a circle to be you in one of the boxes, with whichever person you want."



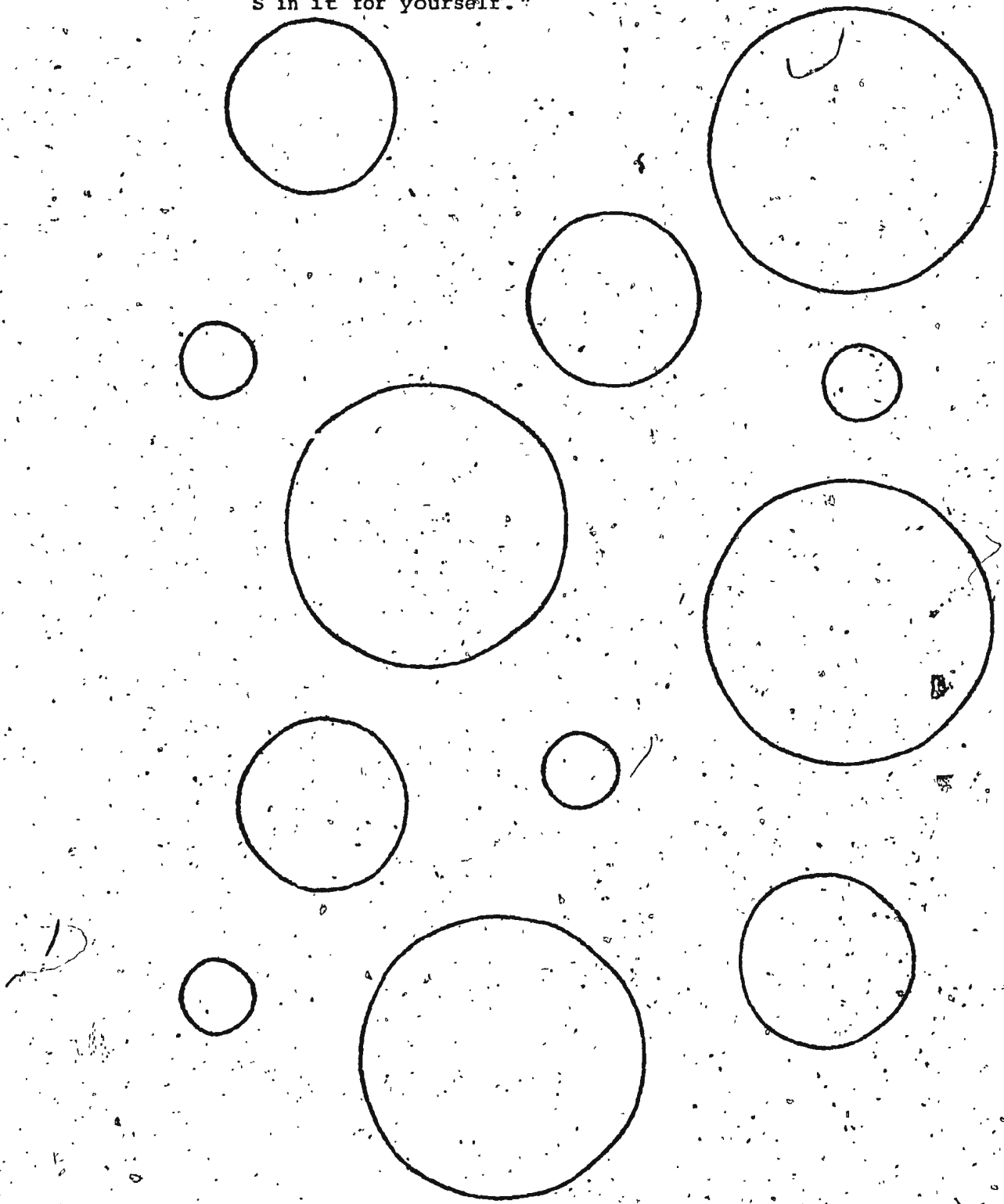
8. "These designs stand for people. You choose one to be you. Draw a circle around it."



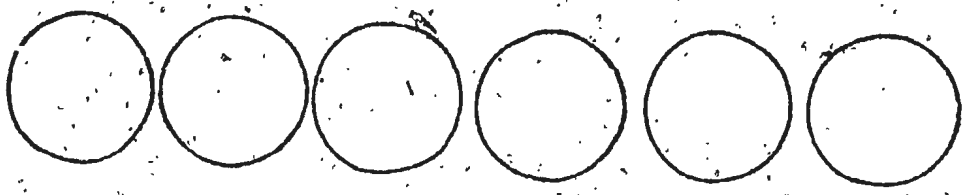
9. "The circle with the F stands for your Father. You choose one of the other circles to be you. Put your initial in it."



10. "These circles are people. First pick one to be your Father. Put an F in it. Next pick one to be you. Put an S in it for yourself."

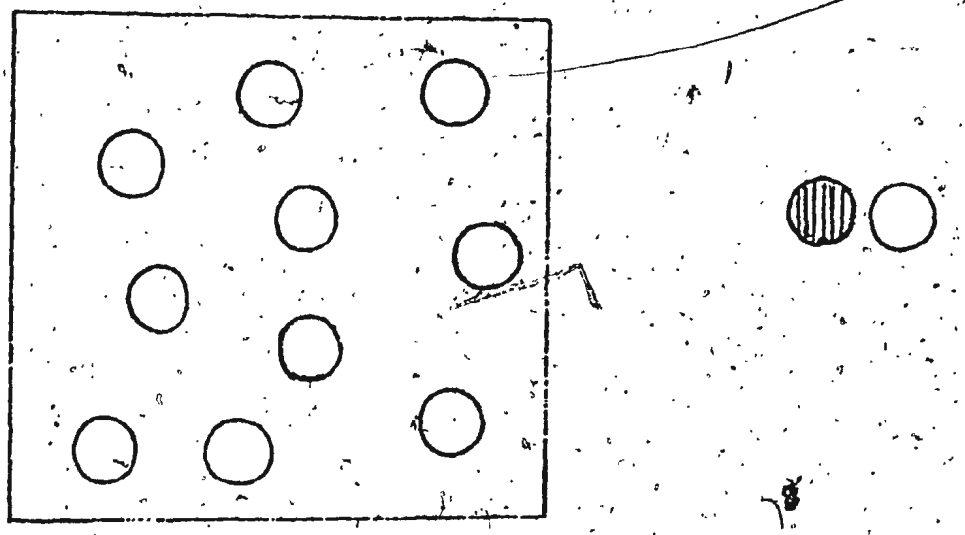


11. "These circles stand for children. You choose one to be you. Write your initial in the circle you choose."



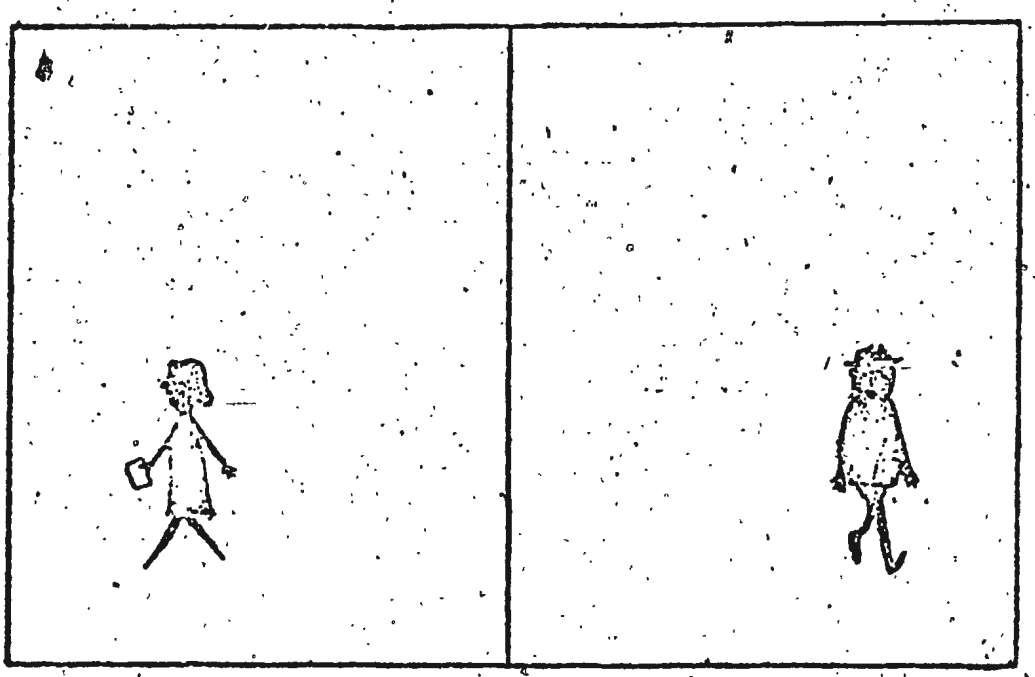
12. "The circle with the T stands for your Teacher. You choose one of the other circles to be you. Put your initial in it."

13. "The circles in the box stand for children in your class. You choose one of the circles on the right (or over here - pointing) to be you. Draw a circle around it."

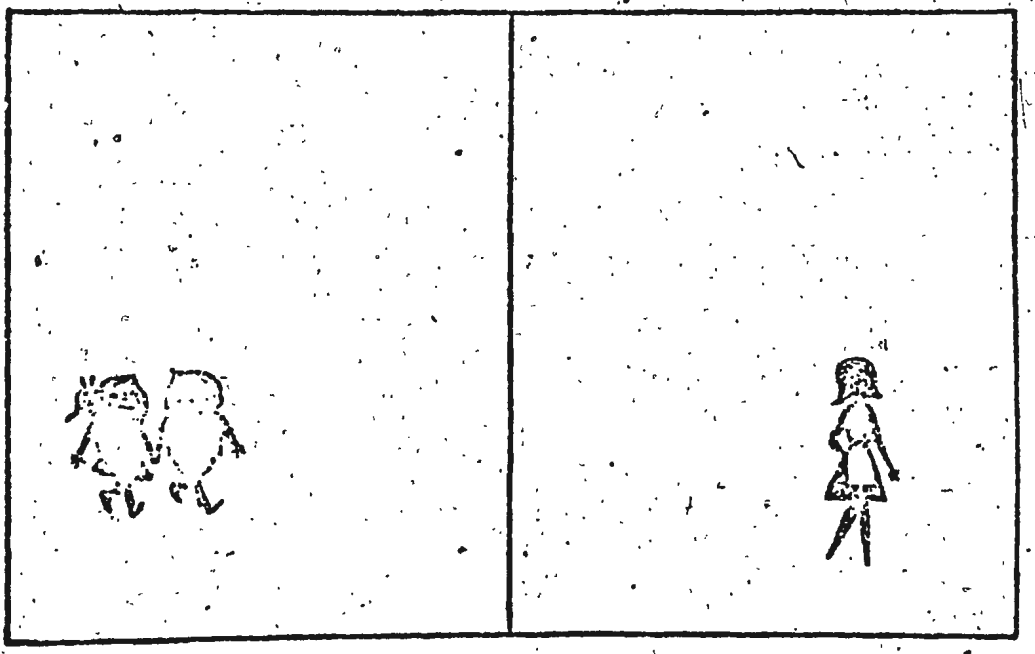


14. "These designs stand for people. You choose one to be you. Draw a circle around it."

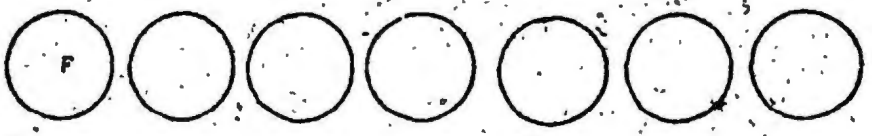
15. "Here are your Teacher and your Father. You draw a circle to be you in one of the boxes, with whichever person you want."



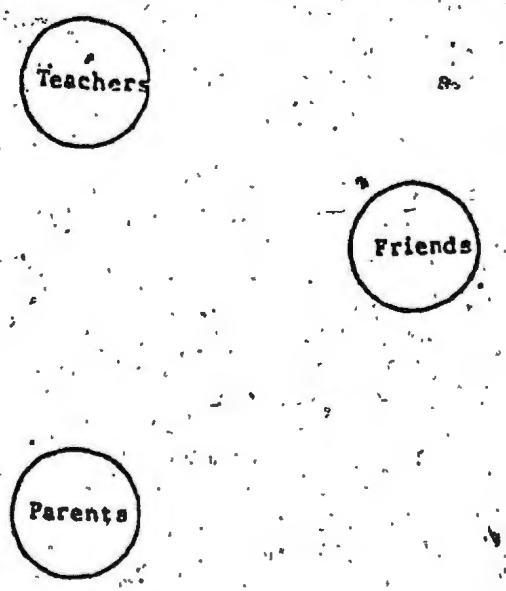
16. "Here are your Friends and your Mother. You draw a circle to be you in one of the boxes, with whichever person you want."



17. "The circle with the F stands for your Father. You choose one of the other circles to be you. Put your initial in it."

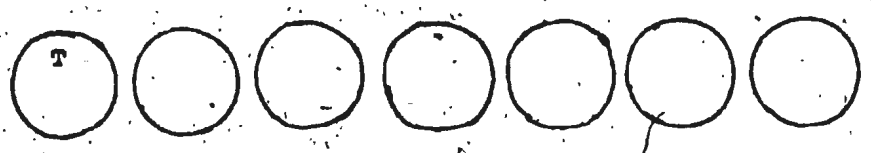


18. "These circles stand for your Parents, your Teacher, and your Friends. You draw a circle to stand for yourself anywhere you like on the page."

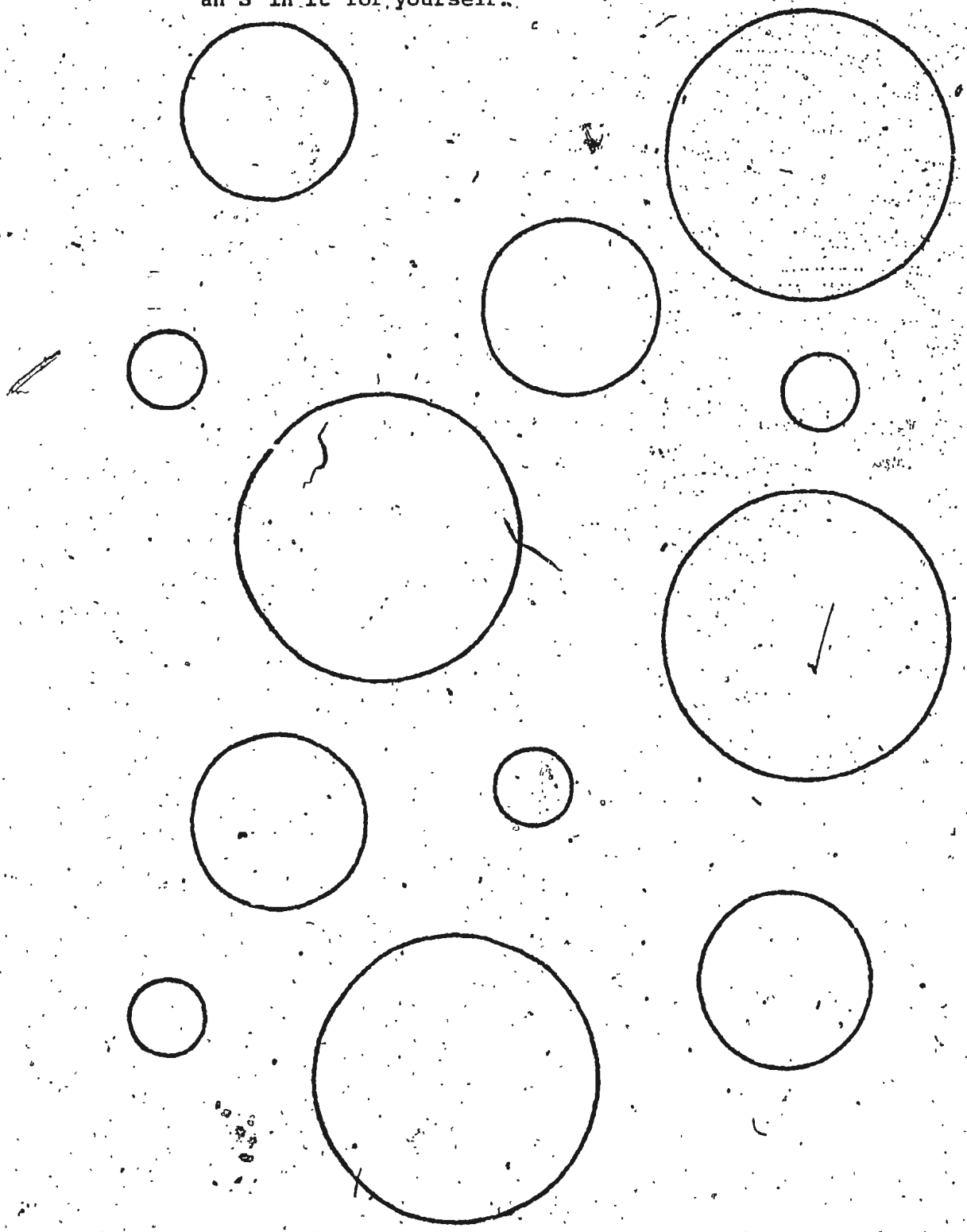


19. "These circles stand for children. You choose one to be you. Write your initial in the circle you choose."

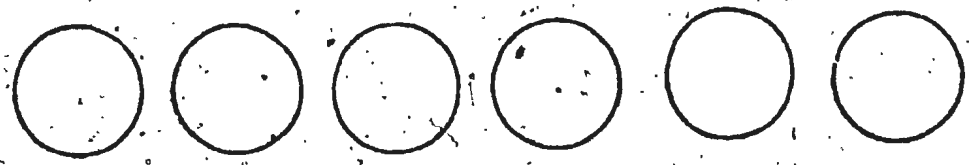
20. "The circle with the T stands for your Teacher. You choose one of the other circles to be you. Put your initial in it."



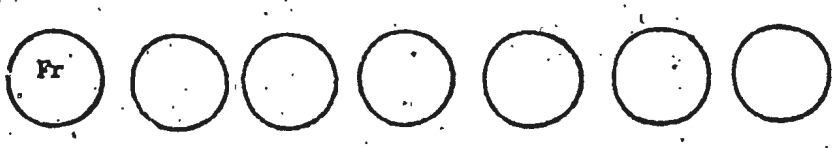
21. "These circles are people. First pick one to be your Father. Put an F in it. Next pick one to be you. Put an S in it for yourself."



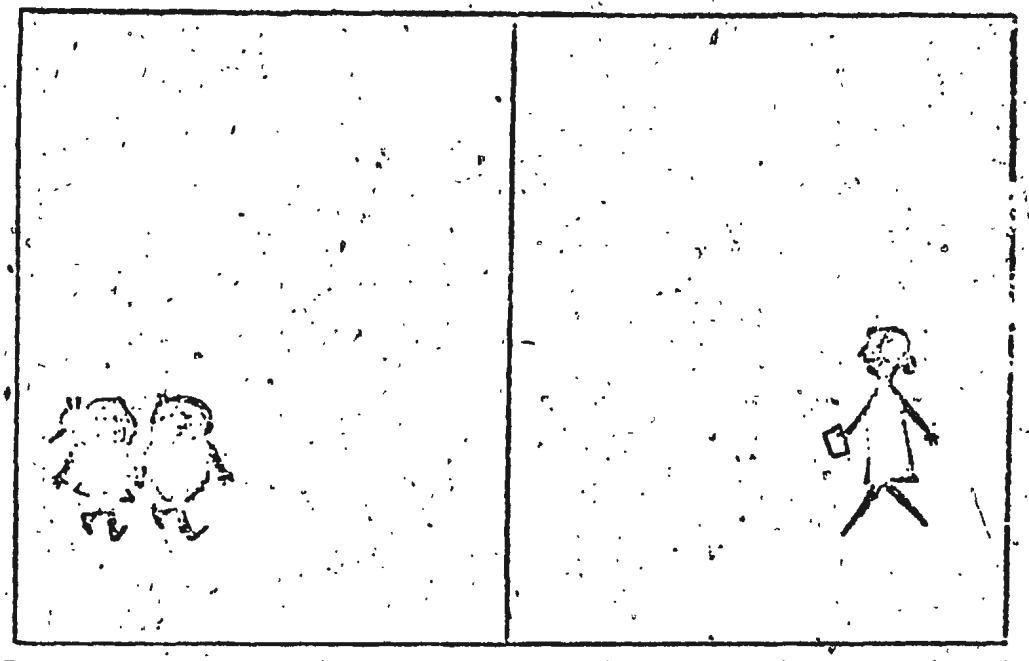
22. "These circles stand for children. You choose one to be you. Write your initial in the circle you choose."



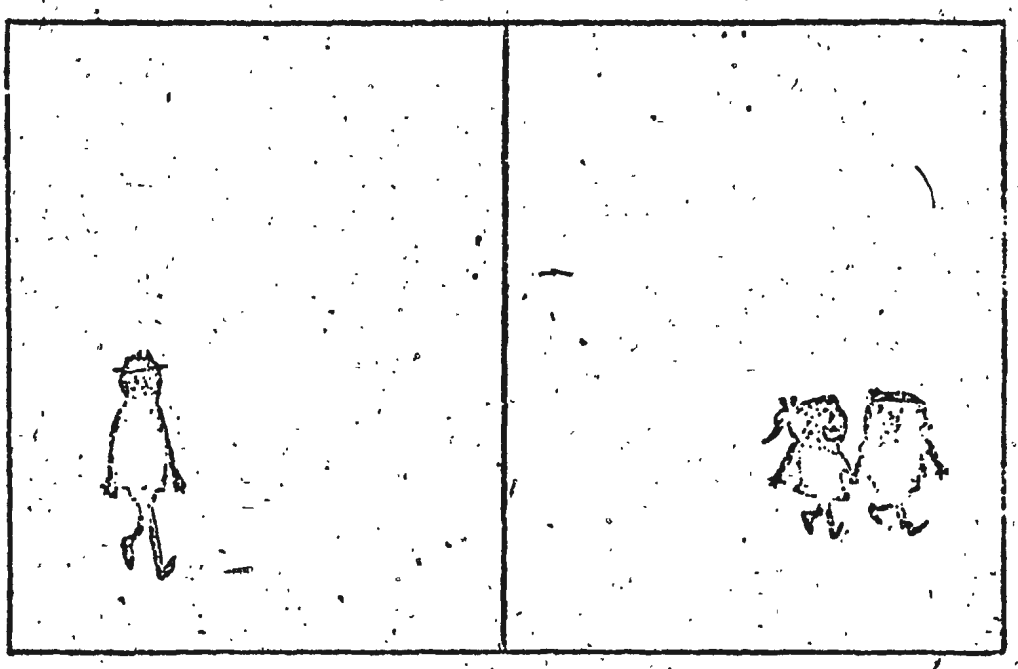
23. "The circle with the Fr stands for your Friend. You choose one of the other circles to be you. Put your initial in it."



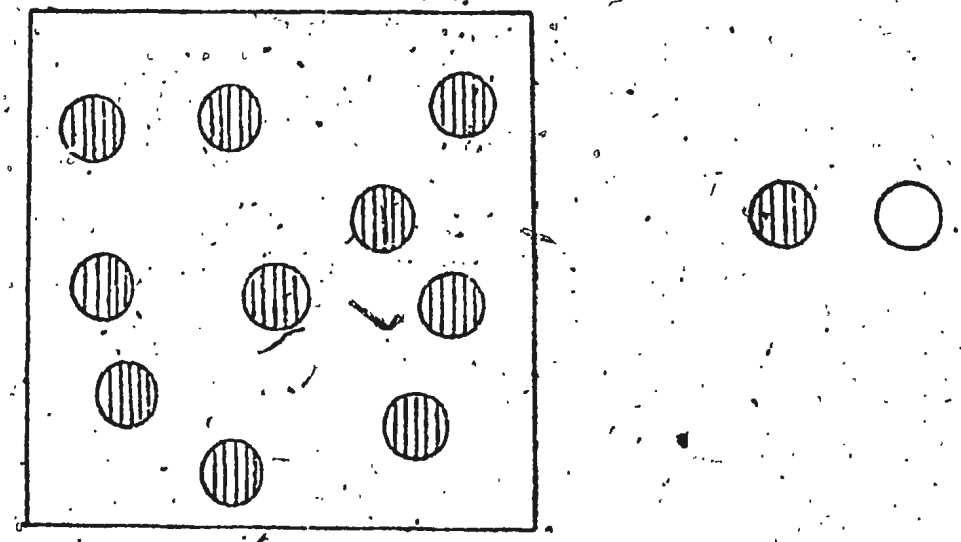
24. "Here are your Friends and your Teacher. You draw a circle to be you in one of the boxes, with whichever person you want."



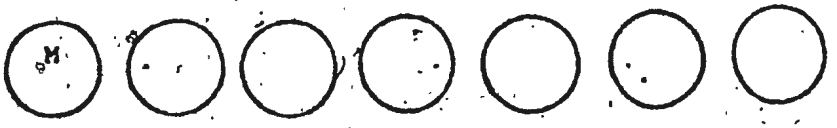
25. "Here are your Father and your Friends. You draw a circle to be you in one of the boxes, with whichever person you want."



26. "The circles in the box stand for children in your class. You choose one of the circles on the right (or over here - pointing) to be you. Draw a circle around it."

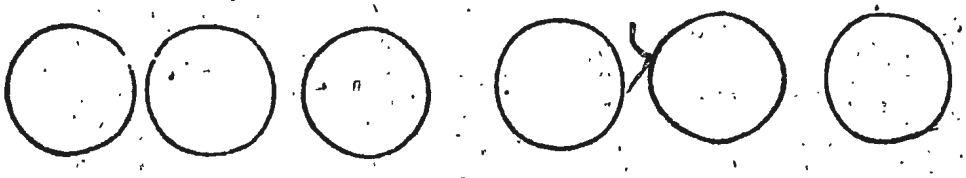


27. "The circle with the M stands for your Mother. You choose one of the other circles to be you. Put your initial in it."

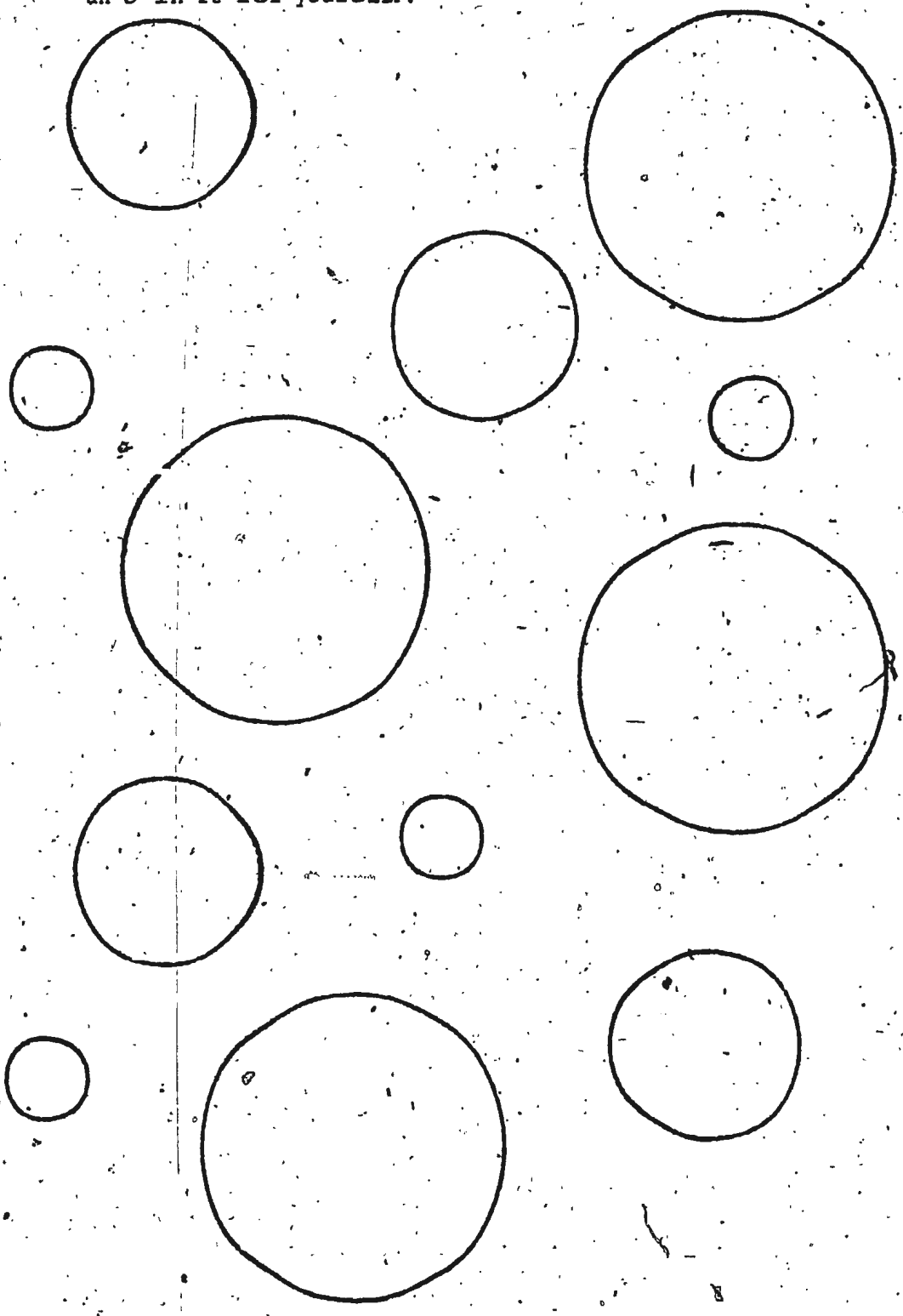


28. "These designs stand for people. You choose one to be you. Draw a circle around it."

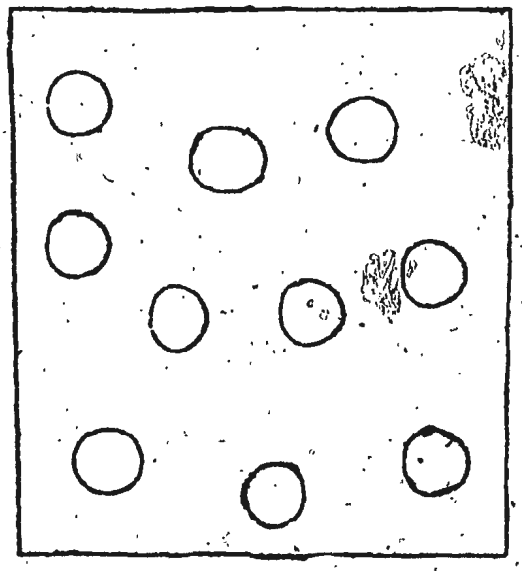
29. "These circles stand for children. You choose one to be you. Write your initial in the circle you choose."



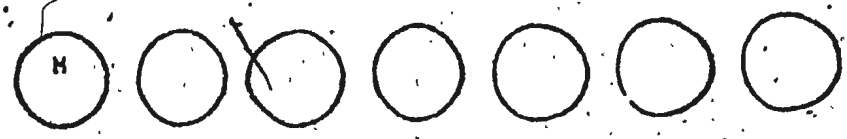
30. "These circles are people. First pick one to be your Father. Put an F in it. Next pick one to be you. Put an S in it for yourSELF."



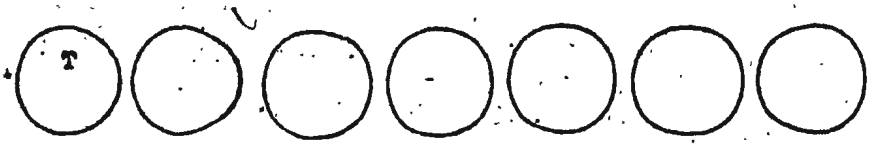
31. "The circles in the box stand for children in your class. You choose one of the circles on the right (or over here - pointing) to be you. Draw a circle around it."



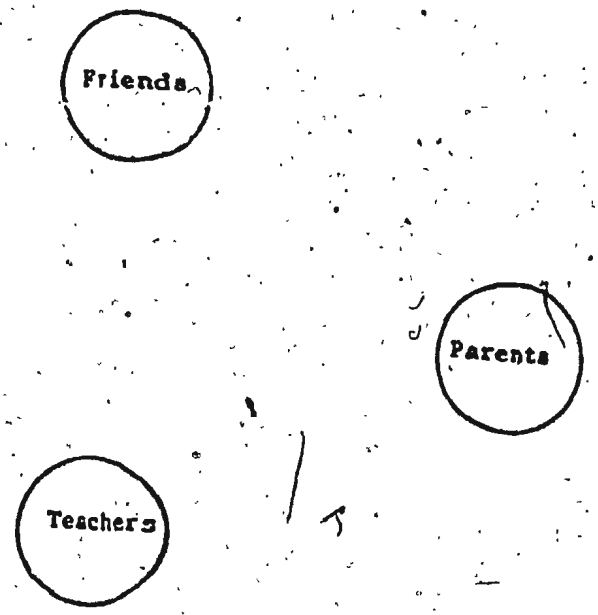
32. "The circle with the M stands for your Mother. You choose one of the other circles to be you. Put your initial in it."



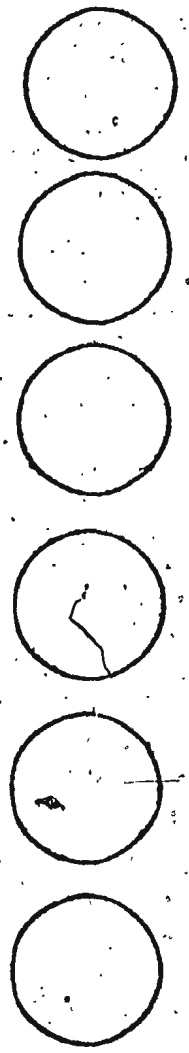
33. "The circle with the T stands for your Teacher. You choose one of the other circles to be you. Put your initial in it."



34. "These circles stand for your Parents, your Teacher, and your Friends. You draw a circle to stand for yourself anywhere you like on the page."

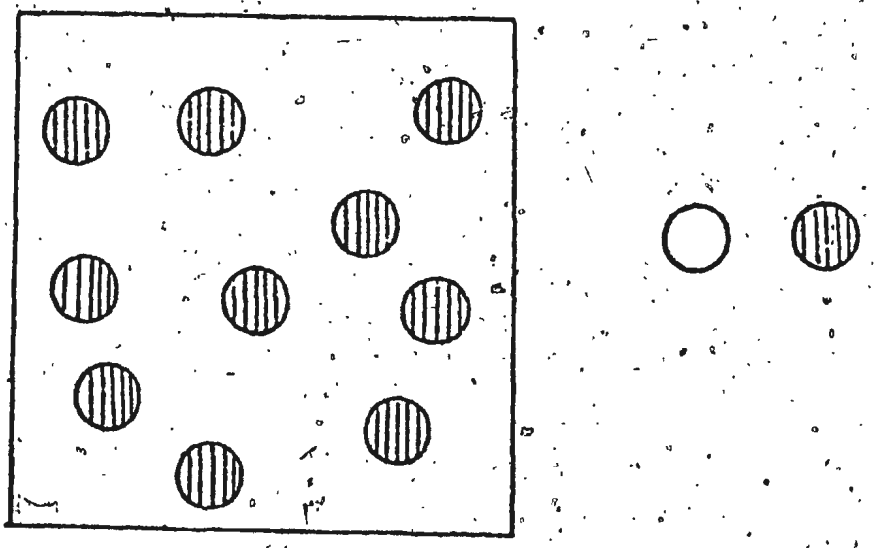


35. "These circles stand for children. You choose one to be you. Write your initial in the circle you choose."



36. "The circle with the F stands for your Father. You choose one of the other circles to be you. Put your initial in it."

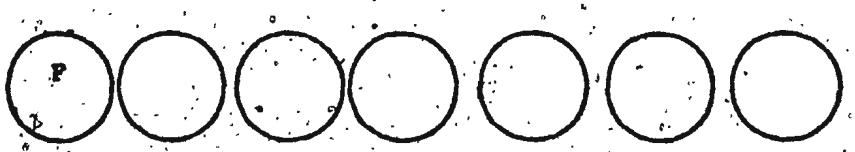
37. "The circles in the box stand for children in your class. You choose one of the circles on the right to be you. Draw a circle around it."



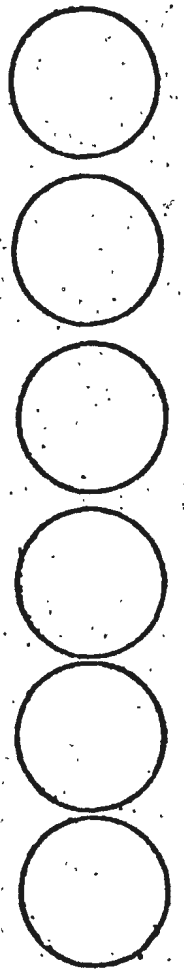
38. "The circle with the Fr stands for your Friends. You choose one of the other circles to be you. Put your initial in it."

39. "These designs stand for people. You choose one to be you. Draw a circle around it."

40. "The circle with the F stands for your Father. You choose one of the other circles to be you. Put your initial in it."

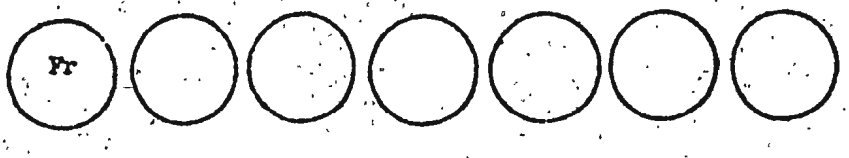


41. "These circles stand for children. You choose one to be you. Write your initial in the circle you choose.

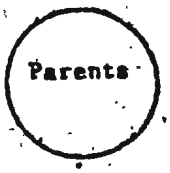


42. "The circle with the T stands for your Teacher. You choose one of the other circles to be you. Put your initial in it."

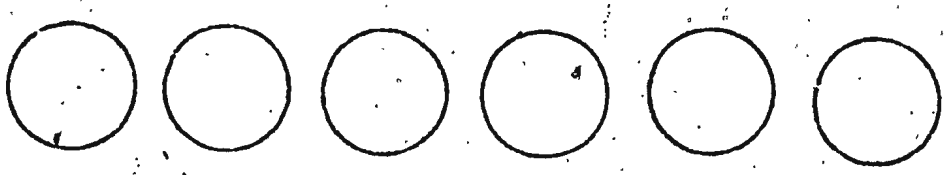
43. "The circle with the Fr stands for your friend. You choose one of the other circles to be you. Put your initial in it."



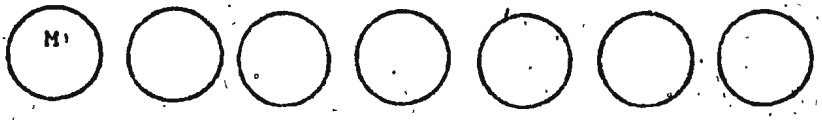
44. "These circles stand for your Parents, your Teacher, and your friends. You draw a circle to stand for yourself anywhere you like on the page."



45. "These circles stand for children. You choose one to be you. Write your initial in the circle you choose."



46. "The circle with the M stands for your Mother. You choose one of the other circles to be you. Put your initial in it."



APPENDIX B

Scoring Instructions for Self-Social Symbols Test

SCORING INSTRUCTIONS FOR SELF-SOCIAL SYMBOLS TEST

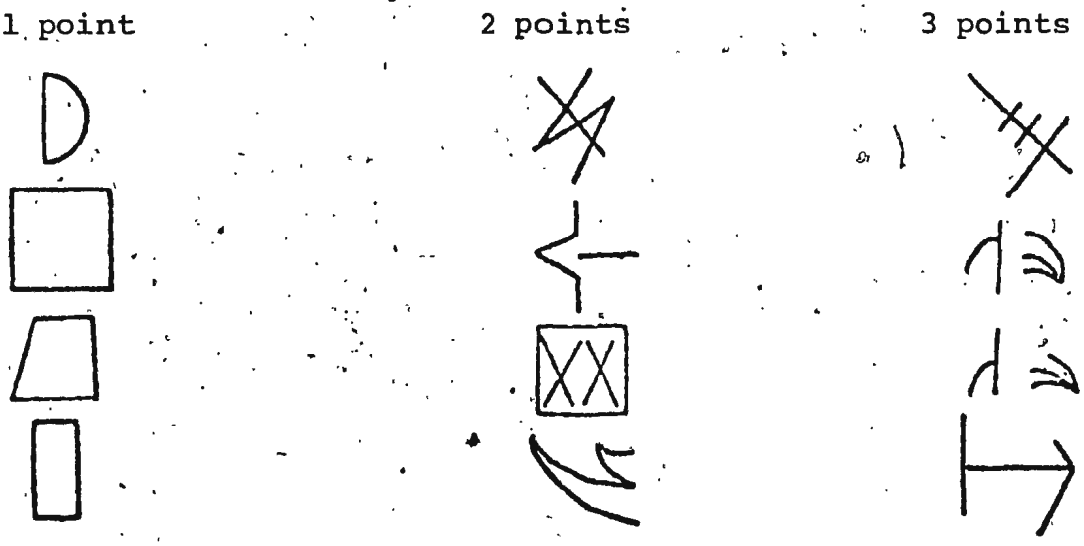
1. Esteem (vertical). One to six points, from bottom to top. Higher score represents higher esteem.

2. Esteem (horizontal) One to six points, from right to left. Higher score represents higher esteem.

3. Identification. Scores are computed separately for Mother, Father, Friend, and Teacher. One to six points, from near to far from the stimulus person. A higher score represents greater distance, and thus less identification.

4. Social dependency. One point for placing the self within the group of others. Zero if placed outside the group of others. To make the scoring objective, a cardboard template of triangular shape and large enough to cover stimulus circles should be made. All circles representing the self even partly under the template should be scored as within the group. Higher score represents greater dependency or group orientation.

5. Complexity. Designs are scored from 1 to 3, as follows:



6. Minority identification (individuation). One point for choice of circle for self which is different from those in the box. Zero for choice of circle for self which is the same as those in the box. Higher score represents greater minority identification or individuation.

7. Realism of size. One to three points for circle representing child, from smallest to largest. Higher score represents less realism.

8. Preference (forced choice). One point for stimulus person chosen. Points for stimulus persons are accumulated as preference items appear in the test. Higher score for a person represents greater preference for that person.

APPENDIX C

General Information and Scoring Sheet

STUDENT'S NAME _____ SCHOOL _____

AGE _____ DATE OF BIRTH _____ BOY GIRL

CLASS PLACEMENT _____ GRADE _____

SCORING

Horizontal Esteem	Vertical Esteem	Dependency	Ident.Mother
1.	19.	5.	2.
11.	22.	18.	27.
29.	35.	34.	32.
45.	41.	44.	46.
T +		T	T

Ident. Father	Ident. Friends	Ident. Teacher
9.	4.	12.
17.	23.	20.
36.	38.	33.
40.	43.	42.
T		

Complexity	Individualization	Realism Size
8.	13.	3.
14.	26.	10.
28.	31.	21.
39.	37.	30.
T	T	T

Preference (Forced Choice)

Mother Father Friends Teacher

Total Self-Concept Score = (48-EST) + (4-DEP) + (12 - COM) + MO + FA + FR + TCH + IND + REAL

APPENDIX D

Letter of Application for Research

Roman Catholic School Board for St. John's
Belvedere, Bonaventure Ave.

Brother Bellows, Superintendent of Schools. Phone: 726-9450

Memorial University Application for Research in schools within the Roman Catholic School Board for St. John's.

It is understood that if and when my application is approved, I should contact the person designated at the school board for co-operation and help in implementation. All arrangements should be made through this contact person.

Applicant Paul Randolph Carter Phone 753-1200 Ext. 3221

Date April 16, 1973

Address of Applicant Dept. of Educational Psychology, Memorial University.

Purpose of Research Masters Thesis

Below is a brief summary of my research proposal, including such items as tests to be administered (copies attached), number of pupils needed, grade levels, number of schools requested, time required, who will administer instruments; etc.

Many studies have been conducted in reference to special education, however, few have been done with investigated the self-concept of children in these special education classes. Therefore, the purpose of this research is to compare the self-concepts possessed by children in regular classroom settings and children in special class settings. The data will be analyzed in relation to the variables of type of class placement, grade level, and sex. The instrument to be used is a non-verbal test designed to assess the children's self-concept. The administration of the instrument will be by groups, i.e. level I male special class setting, etc. The time to administer the assessment is approximately 50 minutes. The administrator of the instrument shall be the investigator. The number of schools needed for the study will be determined by the location of the students assigned. The number and level of students requested as subjects for this study are given on the following page.

LEVEL	SPECIAL CLASS STUDENTS	REGULAR STUDENTS
I (grades 1, 2, & 3)		
Male	50	50
Female	50	50
II (grades 4, 5, & 6)		
Male	50	50
Female	50	50
III (grades 7& above)		
Male	50	50
Female	50	50
SUB-TOTAL	300	300
TOTAL	600	

Submitted to School Board Apr. 16, 73 Submitted to
(date) Brother Bellows
(date)

School Approval _____ Contact person in School
(signature)

_____
(Name)

_____ Date of Approval _____

Supervising Professor
David L. Merricks, Ed.D.

Investigator
_____
Paul R. Carter
Graduate Student

APPENDIX E

Letter of Approval to Conduct Research

TELEPHONE 726-9450

Roman Catholic School Board for St. John's

BELVEDERE
BONAVENTURE AVENUE
ST. JOHN'S, NEWFOUNDLAND

May 2, 1973

Mr. Paul R. Carter
Dept. of Educational Psychology
Memorial University
St. John's, Nfld.

Dear Mr. Carter:

The R. C. School Board for St. John's authorizes you to visit designated schools for the purpose of gathering research data for your master's thesis. It is to be clearly understood, of course, that the anonymity of the children being tested and of the schools from which they come will be totally respected. Furthermore, no family background information on the children is to be compiled.

I wish you every success in your research project.

Sincerely,

G. R. Bellows, C.F.C.
District Superintendent

GRB/sp

APPENDIX F

Means of Groups by Variables

APPENDIX F

Means of Groups by Variables

Groups	Variables									
	EST	DEP	MO	FA	FR	TCH	COM	IND	REAL	TOTAL
1.	32.33	2.37	9.40	9.27	11.40	12.67	7.97	1.60	9.57	8.36
2.	35.47	2.17	9.83	11.00	10.50	13.40	7.43	2.03	8.30	8.27
3.	32.33	1.90	7.80	7.47	9.00	13.13	7.77	1.47	8.60	7.73
4.	31.37	2.17	8.43	8.03	7.90	11.77	8.27	1.20	7.77	7.48
5.	32.43	2.37	9.83	10.60	10.97	9.37	7.43	1.83	8.90	8.14
6.	30.03	1.60	12.20	11.97	12.97	11.13	7.33	1.40	9.93	9.40
7.	30.27	1.73	7.47	10.23	10.07	8.33	7.03	1.20	7.80	7.79
8.	31.00	1.60	8.17	9.17	10.77	8.93	7.93	1.40	7.63	7.73

1 = special class, grade level I males
2 = special class, grade level II males
3 = regular class, grade level I males
4 = regular class, grade level II males
5 = special class, grade level I females
6 = special class, grade level II females
7 = regular class, grade level I females
8 = regular class, grade level II females

EST = Self-Esteem
DEP = Dependency or Social Interest
MO = Identification with Mother
FA = Identification with Father
FR = Identification with Friends
TCH = Identification with Teacher
COM = Complexity
IND = Individuation
REAL = Realism for Size
TOTAL = Total Self-Concept Score as calculated by the formula on page 38.

APPENDIX G

Standard Deviations of Groups by Variables

APPENDIX G

Standard Deviations of Groups by Variables

Groups	Variables									
	EST	DEP	MO	FA	FR	TCH	COM	IND	REAL	TOTAL
1.	6.76	1.33	4.15	5.07	4.27	5.60	2.30	0.89	2.45	2.32
2.	9.62	1.34	6.39	6.48	5.82	7.74	2.18	1.00	2.22	3.21
3.	9.50	1.06	4.38	4.58	4.84	6.92	2.45	1.33	2.43	2.26
4.	6.59	1.32	4.08	3.52	4.15	7.08	1.72	1.06	2.28	1.64
5.	6.37	1.50	4.64	4.22	4.03	4.56	2.50	1.15	2.59	2.08
6.	8.40	1.30	4.79	5.68	4.76	5.24	2.22	1.10	1.82	2.77
7.	8.74	1.48	3.51	4.67	4.16	4.40	2.00	1.30	2.25	1.75
8.	6.10	1.38	4.41	4.20	5.35	4.50	1.96	1.35	1.61	1.80

1 = special class, grade level I males
2 = special class, grade level II males
3 = regular class, grade level I males
4 = regular class, grade level II males
5 = special class, grade level I females
6 = special class, grade level II females
7 = regular class, grade level I females
8 = regular class, grade level II females

EST = Self-Esteem
DEP = Dependency or Social Interest
MO = Identification with Mother
FA = Identification with Father
FR = Identification with Friends
TCH = Identification with Teacher
COM = Complexity
IND = Individuation
REAL = Realism for Size
TOTAL = Total Self-Concept Score as calculated by the formula on page 38.

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BIOGRAPHICAL SKETCH

Paul Randolph Carter was born May 27, 1950, St. John's, Newfoundland, and is the second of eight children of Mr. and Mrs. Frederick and Margaret Carter of Corner Brook, Newfoundland. After living for four years in St. John's, his family moved to Red Rocks, Newfoundland and from there to Corner Brook. After attending various primary and elementary schools in Corner Brook, he recovered from a near fatal shooting accident in 1963, and went on and was graduated from Regina Central High School, Corner Brook, Newfoundland, in 1967. He began his undergraduate studies at Memorial University of Newfoundland in the fall of 1967 and was graduated with a Bachelor of Arts degree in psychology in the spring of 1971. Upon completion of his undergraduate studies, he was employed for approximately one and one half years as a Social Counselor at Exon House, a home for the training and care of mentally and physically handicapped children.

In June, 1972, Mr. Carter returned to Memorial University of Newfoundland to undertake graduate studies in the Department of Educational Psychology, Guidance and Counseling leading to his Master of Education degree. He is at this time, still enrolled as a full time student.

Mr. Carter is married to the former Linda D. Earle of Corner Brook, Newfoundland. He and Mrs. Carter are the proud parents of a three year old daughter, Paula.