SELF-CONCEPT AND CERTAIN EDUCATIONAL DISABILITIES

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THE RELATIONSHIP BETWEEN IMMATURE SELF-CONCEPT AND CERTAIN EDUCATIONAL DISABILITIES

by

Raymond Franklin Bodwin

AN ABSTRACT

Submitted to the School for Advanced Graduate Studies of Michigan State University of Agriculture and Applied Science in partial fulfillment of the requirements for the degree of

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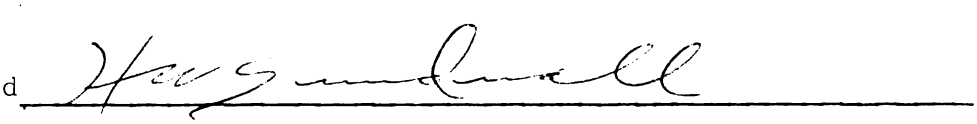
Approved 

Raymond Franklin Bodwin

This study investigated the relationship between immature self-concept (defined in terms of self confidence, freedom to express appropriate feelings, liking for oneself, satisfaction with ones attainments, and feeling of personal appreciation by others) and certain educational disabilities, mainly reading and arithmetic. This study was based on the theory that the self-concept was a developmental phenomenon whose final stages included incorporation and identification and that any interruption in this developmental process limited and distorted the subsequent incorporation, identification and therefore learning.

A comprehensive review of the literature failed to reveal any studies directly related to this problem. Most of the studies in reading dealt with the total personality or emotional problems in general in attempts to define general principles. The studies in arithmetic were few in number and not directly related to the problem.

The method of evaluating self-concept was the Draw-A-Person Test (abbreviated to SCS-DAP) which was validated for self-concept with a pilot group. This instrument was then revised and refined before being applied to this study.

The research group consisted of three hundred subjects (one hundred with reading disability, one hundred with arithmetic disability, and one hundred with no educational disability) from the third and sixth grades of three elementary

schools in Flint, Michigan. The SCS-DAP was administered to these subjects, achievement test results were obtained, and correlations were calculated between reading and arithmetic disabilities and SCS-DAP scores. The differences and significance of differences between some of the correlations were also calculated.

Conclusions

The following conclusions were shown from this study:

1. A positive and very significant relationship existed between immature self-concept and reading disability. The correlations obtained on this part of the investigation were .72 on the third grade level and .62 on the sixth grade level both of which were significant on the one per cent level of confidence.

2. A positive and very significant relationship existed between immature self-concept and arithmetic disability. The correlations obtained on this part of the investigation were .78 on the third grade level and .68 on the sixth grade level both of which were significant on the one per cent level of confidence.

3. The relationship between immature self-concept and reading and arithmetic disability was greater than the relationship between immature self-concept and disability in other school subjects. The correlation obtained between immature self-concept and median achievement test scores was .60 which

was significantly lower than those obtained for reading and arithmetic disabilities and immature self-concept.

4. The relationship between immature self-concept and reading disability was somewhat less, although not significantly so, than the relationship between immature self-concept and arithmetic disability.

5. The relationship between immature self-concept and reading and arithmetic disabilities was greater on the third grade level than the sixth grade level. This indicated the presence of age differences in these relationships.

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CHAPTER I

THE PROBLEM AND DEFINITION OF TERMS USED

Numerous studies have pointed out the relationships between personality disturbance and scholastic difficulties, particularly in reading. Some studies have attempted to be more specific in pointing out types of personality disturbance that seem to be related to specific educational disabilities. Psychological fields, by and large, have often assumed that relationships exist between certain facets or components of personality and specific educational abilities and have operated on this assumption. In no instance, however, has experimental evidence been presented to support these contentions.

The Problem

Statement of the Problem. It was the purpose of this study to investigate the possibility of the relationship between (1) immature self-concept and reading disability, (2) immature self-concept and arithmetic disability, and (3) to evaluate the differences (if any) in these relationships.

The self-concept of an individual is viewed as a developmental phenomenon resulting from a dynamic interaction between the individual and his environment. It is generally accepted that the self-concept as a percept is not present

at birth but begins to develop gradually as perceptive powers develop. As the infant begins to perceive himself as separate and distinct from others, the self-concept develops but the first differentiations are vague and general. As the baby comes into contact with others in the normal daily routine of feeding, bathing, fondling and playing, he learns to distinguish himself from others. This recognition and distinguishing of others must occur before he learns to distinguish and recognize the self. Thus, if the infant is neglected or deprived of important elements in the daily routine the development of the concept of the self is hampered if not arrested.

The role of perception is all important in this process of differentiation. When the source of satisfaction is temporarily withdrawn, the infant is forced to perceive in order to find the source of satisfaction. This perception is followed by a dim realization that something has to be done by the environment in order to be satisfied and results in the first longing and direction toward outside objects.

The differentiation process is assisted by the fact that the environment cannot be entirely controlled by the infant and thus is separate and distinct from the self. The infant comes to realize that he is dependent upon his environment for the satisfaction of many important needs and this dependency assists him in distinguishing his own actions from those of others.

It would appear that the original awareness of self in the infant is produced by kinesthetic and tactile sensations. As other sense modalities are stimulated and developed through physiological growth and interaction with the environment, further differentiation occurs not only between the self and the outside world but between various outside objects.

Schilder (44:22)*, among others, has pointed out the importance of the body image in the development of the self emphasizing that the child's perception of its own body becomes the nucleous of awareness of the self. As the child grows and matures he incorporates outside objects as extensions of the body and as part of the self-concept. Clothes are some of the first outside objects to be thus incorporated probably because they determine the shape and character of the body which we present to the outside world. With further growth other outside objects are incorporated, such as toys and other possessions and this becomes one of the major means by which the child learns of the outside world. In still a later developmental level ideas and concepts are incorporated through the same learning process that operated in earlier developmental levels. In this way the individual absorbs into and as a part of himself all of the persons, objects, ideas, concepts and ideals with which he identifies himself.

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*Number preceding colon refers to the bibliographical entry. Those numbers after colon refer to page or pages of entry.

If the development of the self to this level is interferred, delayed, retarded, or fixated on a lower, less mature level, these incorporations and identifications as involved in the learning process suffer.

Some psychologists have stressed the social determinants of the self, feeling the self is formed only as the individual defines his relation to the world about him. According to Snygg and Combs (45:112)

> The culture in which we move is so completely and inextricably a part of our experience as to overshadow almost all else in determining the nature of the . . . self developed by each of its members. Even our definitions and values with respect to the purely physical aspects of our environment are not left entirely to our own experience but are colored, interpreted, and valued one way or another by the culture into which we are born, as they are interpreted to us by the acts of the people who surround us.

This study was based on the psychological theory that the self-concept is developed through a process of differentiation and incorporation and as a social adaptation to the demands of the culture. Learning phenomena of all types are also viewed as a social adaptation to the environment. Thus, in theory, an individual with an immature self-concept hampered in the areas of differentiation and incorporation and lacking a more complete social adaptation in lower levels of aspiration, competitive and cooperative drives, identifications with group norms and values, is more prone to learning difficulties. From this the first three hypotheses are formulated and tested.

1. A significant and positive relationship exists between immature self-concept and reading disability.

2. A significant and positive relationship exists between immature self-concept and arithmetic disability.

3. The relationship between immature self-concept and reading and arithmetic disability is greater than the relationship between immature self-concept and disability in other school subjects. This hypothesis is postulated on the theory that the greater symbolism involved in reading and arithmetic (essentially high order conditioning) creates additional handicaps for the individual experiencing difficulties in differentiation, incorporation, and identification.

If the above relationships are as postulated the individual with immature self-concept will be more ready for initial instruction in reading at eight years of age than at six where reading is ordinarily introduced. By the time he has attained readiness he is already in the third grade where more complex reading is required and where there is relatively less stress on the fundamentals of reading which he has yet to grasp. This situation is rich ground, of course, for the development of reading disabilities, which, in turn, reinforces the immaturity of the self-concept.

Furthermore, because of its very nature, reading is viewed as a more complex process in its initial stages than is arithmetic especially for children with immature self-concept (4:171-172, 15:1-5). In addition to its complexity, the

psychoanalytic school views reading as a sublimated aggressive, sadistic activity which, for the child who fears his aggressivity, creates a threat. The ease with which reading content and even individual words and letters can so easily become associated with emotional conflicts in contrast to the impersonal quality with which numbers are usually viewed creates an additional handicap to the learning of reading.

Arithmetic, on the other hand, can be and is divided into various developmental steps: addition, subtraction, multiplication, division, fractions, et cetera. The very nature of arithmetic which makes possible this type of organization of teaching allows the student to develop in phases. In contrast, reading cannot be so easily subdivided. This fact alone may often create greater difficulties in learning.

An additional factor in favor of arithmetic is that at the time the more complex phases are presented to the child he has usually reached the latency period of his psychosexual development. This period is characterized by the individual striving for greater structure, less personalization with his behavior becoming compulsive in nature. Arithmetic again by its very nature, tends to more greatly meet the child's psychological needs during this period than reading. Thus the fourth hypothesis of the study was:

4. The relationship between immature self-concept and reading disability is greater than the relationship between immature self-concept and arithmetic disability.

Definition of Terms Used

Immature Self-Concept. For the purpose of this study the term "self-concept" had to be defined operationally. It is composed of the following five elements: (1) self confidence, (2) freedom to express appropriate feelings, (3) liking for oneself, (4) satisfaction with one's attainments, (5) feeling of personal appreciation by others. An immature self-concept, therefore, becomes one which is seriously lacking in one or all of the above five elements as indicated on a rating scale to be described below.

Reading Disability. Reading disability was defined as a score on a standardized achievement test one or more grade levels below the national norm for the individual in terms of age.

Arithmetic Disability. Arithmetic disability was defined as a score on a standardized achievement test one or more grade levels below the national norm for the individual in terms of age.

Limitations of the Study

One of the central features of this study was the employment of rating scales. For some time rating scales have been severely criticized for their inaccuracy. They continue to be used in research studies, however, for the ease for which they measure otherwise inaccessible traits or those

which are difficult to measure. It has also been recognized that the more expert the rater in the trait being measured, the more accurate will be his results. It will be seen that the persons rating subjects for self-concept and scoring the Self-Concept Scale of the Draw-A-Person Test were trained in psychological evaluations and therefore qualified as experts. Despite this, however, it is quite possible that inaccuracies did exist and therefore influence the result. Reliability studies of the SCS-DAP would serve to measure the magnitude of these errors.

While there is some question that the validating group and the research group actually differed in the trait measured, the fact that the validating group was a clinic population while the research group was a normal population presented a limitation of this study. It can be argued on theoretical grounds that a device that discriminates in a homogeneous population would discriminate even better in a heterogeneous population but still the methodology of the study would be improved if both groups were drawn from a normal population.

CHAPTER II

REVIEW OF RELATED LITERATURE

Self-Concept and Emotional Factors in Reading

A great amount of literature exists in the field of reading. By far, the bulk of this literature is concerned with non-emotional factors in reading. On segregating the literature relating emotional factors in reading, it quickly became apparent that the field has been traditionally concerned with the composite personality organization rather than isolating its component parts. The results are rather general studies in an effort to discover over-riding principles. These studies, of course, have a bearing on the research being reported but because of their general nature and the treatment of the personality as a composite whole, are distincly removed from the present study.

Failure in reading has frequently been associated with emotional problems and, in turn, emotional problems have been attributed to reading failure or reading difficulty. This which-comes-first-the-chicken-or-the-egg controversy has been battled in the literature from as far back as 1932. At that time Monroe (34:105), after careful study, concluded that while negativism or other unfavorable attitudes may interfer with

learning to read, probably the emotional and personality problems develop more frequently as a result of the failure in reading. Four years later Gates (13:205-6) took a more neutral stand pointing out from a study of one hundred disabled readers that most also displayed emotional difficulties, such as nervous tension, defensive behavior, aggressive reactions, recessive behavior, avoidance reactions, submissive or surrender reactions, and extreme self-consciousness. He cautiously concluded that emotional disturbances often occur together with reading disabilities without attempting to define a cause and effect relationship.

At about the same time Fernald (10:31-3) took a position that is still favorably received today although not without its opposition. Strand (49:141) best summarized this position. He first pointed out that the cause and effect relationship is not easy to determine.

> Apparently either reading or emotional disturbance may be cause or effect. In one case a pupil may not progress in reading because of emotional disturbances that have their origin elsewhere, in which case it may be deemed advisable to attempt to secure better emotional adjustment as a condition to teaching reading. In another instance frustration occasioned by failure in reading may lead to emotional disturbance, in which case, learning to read would tend to mitigate the emotion. But failure in reading and emotional disturbance may be both cause and effect in the same pupil, as when failure in reading occasions emotional excesses, which, when occasioned, interfere with attempts to overcome the deficiency in reading. In this event it seems desirable, and in extreme cases almost necessary, to effect some reduction in emotion before reading instruction can go forward.

Studies on the personality and emotional stability and problems of children with reading handicaps were numerous by

1940 when Traxler (51:98) summarized the research of the previous ten years. In this summary concerning the relationship between reading disability and personality maladjustment, he wrote:

> Many persons have pointed out that pupils who have experienced failure because of poor reading are likely to have personality difficulties. Consequently, there has been considerable interest in noting what effect removal of reading disabilities has on personality adjustment. Studies in this general area have been reported by Blanchard (3:384-413), Challman (8:7-11), Gates and Bond (17:205-275), Hosey (23:273-275), Kirk (26:140-162), and Ladd (29:531-535). The conclusion indicated by investigations of this kind is that removal of the reading handicaps does, in fact, relieve emotional tension and help retarded children to attain normal personal and social adjustment.
>
> The reverse aspect of this relationship, of course, is also important. Pupils referred for treatment because of severe reading disability not infrequently need psychiatric attention so that they will accept the situation and cooperate in such a way that the reading difficulties may be alleviated.

Blanchard's study (3) deserved a somewhat fuller treatment than provided by Traxler (51). She summarized her paper by pointing out that reading disability

> often arises from the same sources of difficulties in emotional development, and in much the same manner, as the accompanying personality or behavior problems or neurotic symptoms, such as fears, illnesses without physical basis, infantile regressions, and the like.
>
> Personality and behavior patterns ill adapted to reality situations and neurotic symptoms originate, in one sense, according to psychoanalytic theory, from an effort to solve ambivalent guilt conflicts. They afford a disguised expression of impulses and feelings that have had to be repressed and denied because of conflict, anxiety, and guilt. At the same time, they often relieve anxiety and guilt through self-punishment--as in the case of fears and illness symptoms--or through insuring disapproval or punishment from others for socially unacceptable behavior.

> Similarly, in many instances, the reading disability is a disguised expression of hidden motives, satisfying the need for punishment and relieving guilt by exposing the child to a situation of failure in school and to criticism.

Blanchard's work is the first clear-cut instance in the research which attempted to tie some types of reading disability and some types of emotional problems to a common core.

Her work seemed to have served as a springboard for further study for emotional factors etiologically significant in reading disability. Gates (14:82) concluded, from a study of this nature, that three-quarters of the children with reading disabilities also showed emotional problems but for only one-quarter of these was the emotional problems of etiological significance. Robinson (39:98) summarized from reports of psychiatric studies of children with reading disabilities by saying that they reveal no consistent trends. Missildine (33:370) found all of thirty children with reading disability to be insecure, restless, and emotionally ill, but the reading difficulty was only a small part of the problem behavior. On the other hand, Monroe and Backus (36:142) have separated out rather specific conditions which they feel do have etiological significance. Basically, these were general emotional immaturity, excessive timidity and shyness, predilection against reading, and predilection against school in general. To these may be added excitability and instability, mentioned by Castner (7:386) and the anxieties attendant on adjusting to school, pointed out by Jameson (24:178).

A study by Bennett, Sullivan, and Szymanski (2:81) was typical of others in this area. In this study of reading retardation, it was found that two-hundred, or thirty-nine per cent, of the five hundred and seventeen subjects listed showed an emotional disturbance of some kind. Discouragement appeared in twenty-six per cent of the two hundred cases; nervousness was next in frequency, occurring in eighteen per cent of the cases. The only other category which occurred in more than ten per cent of the cases was family trouble. Feelings of inferiority, insecurity, and lack of confidence together accounted for nineteen per cent of the two hundred cases showing emotional instability.

Recently, there has been a trend toward emphasis of the multiplicity of factors involved in reading. Robinson (40:121) in collaboration with a psychiatrist, a physician, three ophthalomologists, an otolaryngologist, an endocrinologist, psychologist, social worker, a reading specialist, and a teacher examined minutely thirty elementary school children with reading disabilities. Careful follow-up studies were made. Help was given in accordance with the major problem or problems--physical, mental, emotional, or environmental--disclosed by this many-sided diagnostic approach. Commending on the emotional and personality picture presented by these children, Robinson wrote:

> Emotional and personality maladjustments in children who failed to learn to read properly seemed to be very common. Emotional maladjustments appeared to be either

> a cause or a result of reading failure, or each might interact on the other, intensifying both. The data secured indicated that emotionally immature children might fail to learn to read when starting school. It is likewise stressed that neurotic children should be carefully studied before reading training is provided.

The incidence of emotional involvement in reading cases has already been mentioned to some extent (2,13,14). Strong, McCullough, and Traxler (48:372) pointed out that it has been variously estimated at six to seventy-five per cent or even higher and conclude that the large majority of severe cases of reading disability show some degree of emotional involvement. In a study which they reported of one hundred and fourteen emotionally disturbed inpatient children, seventy-five per cent were from one month to three years below their mental ages in reading.

Another distinctly different type of research to determine causitive factors in reading disability had a flurry of acceptance from 1920 to 1930. Statistical studies comparing groups of children with reading disabilities to control groups of good readers became popular during this decade only to fade because they yielded little of value (5:77, 6:287, 14:77-83, 15:401, 16:147, 19:278, 22:142, 35:407, 42:26).

With so much emphasis on emotional factors in reading disability, it was inevitable that studies would be made regarding descriptions of the personality of retarded readers. Some studies in this area have been mentioned above (2:81, 3: 384-413, 7:386, 14:82, 24:178, 33:370, 36:142, 39:98). In

addition to these studies, Ladd (29:531-535) and Hincks (21: 32-34) agreed that pupils handicapped by reading disability rate somewhat lower than the average in nervous stability, general control, ambitiousness, alertness, and general drive. Gates and Bond (17:205-206) noted that these children lack persistence, do not concentrate well, are withdrawn, show extreme sensitivity, daydream, and altogether exhibit a lack of aggressiveness necessary for effective adaptation in learning to read. Sperry (46:289-290) concluded from a study of retarded readers that they were distractible, sensitive about failure, dependent, given to temper tantrums, infantile behavior, disobedience, irritability and social inadequacy. In a more recent study (43:130) the personality characteristics most frequently reported were fear, tension, a withdrawal of effort, lack of sustained attention, an antagonism to school, compensatory interests, and a general lack of emotional and social responsiveness. Robinson (41:121) contended from her study that the majority of severe reading cases tended to be shy and withdrawn, lacking in interest in reading, in drive, and in initiative. They were often submissive and almost always insecure and apprehensive. Few showed aggressive behavior.

With the development of the projective techniques in clinical psychology, additional measures of personality were brought to bear on the problem of isolating the personality characteristics of the retarded reader. Gann (12:204-226)

studied superior, average, and retarded readers in grades three to six matched as to chronological age, I.Q., mental age, school experience, and sex. Using the Rorschach method as the main measure of personality evaluation, she found indications that the retarded readers were less stable than the good readers, not so well adjusted emotionally, less adaptable socially, more fearful and less secure in the face of challenges, less efficient in the use of their potential mental capacity, and more concerned with small detail.

In a classical study, Vorhaus (52:78-79) also utilized the projective tests to aid in understanding this problem. On testing over three hundred reading clinic cases with the Rorschach, she found that they fell into four main personality configurations, all of which were of a submissive withdrawing nature:

1. The severely restricted and repressed individual with a consuming interest in conformity. His existing personality impoverishment was too great to allow any genuine interest in either learning or achievement. His ambitions had almost stifled all growth potential.

2. The submissive, emotionally detached individual. Learning to read seemed unimportant to him. He seemed to have no wish either to channel his infantile drives through creative outlets or to relate the satisfactions experienced to values and interests outside himself.

3. The individual whose creative energy has no outlet. He showed lack of capacity for rapport and strong feelings, for joyousness and spontaneity. He reacted submissively yet felt strong inner rebellion.

4. The person who was in a state of tension which diverted his energy from constructive expression and caused restlessness and preoccupation. This tension arose from strong feelings which were unacceptable. Consequently, he directed his hostility inward against himself.

With the growth of the psychoanalytic field, more attention has been given to the theoretical genetic factors in the relationship between emotional disturbance and reading and learning disabilities. The psychoanalytic emphasis has resulted in a shift in methodology from statistical studies and comparisons to theoretical discussions broadly accepted even though not based on scientific experimentation. Typical of this type of study is one reported by Blanchard (4:170) who wrote:

> Either tramatic experiences or chronic subjection to excessive emotional strain in the relationship with parents may result in unconscious conflicts that interfere with a child's learning. A good example of a traumatic emotional experience is that of a child who has been separated from one or both parents. We have known this for some time . . . in our clinical work with children placed in foster homes or institutions and temporarily or permanently separated from their parents. Such a traumatic experience may be an immediate cause of trouble with learning if the child is emotionally disturbed at the time of school entrance or during early school years. Again, the emotions surrounding an earlier traumatic occurrence may be reactivated by some later event of similar nature that revives the memories and feelings associated with the original traumatic situation.

The child-teacher relationship has been treated in some detail in psychoanalytic theory. In this vein Pearson (37:329) was "impressed" that one of the primary and most powerful motives to learn was the reward received by the teacher's love. This held, according to Pearson, not only in the primary grades, but for college students as well. He concluded that

> learning for the sake of learning; i.e., to please the ego ideal of being a learned person (mature self-concept)* actually is found only in mature people who have really subordinated the pleasure principle to the reality principle.

Anna Freud (11:87) has described how a young child's training (education) is facilitated by his love of adults and his wish to retain their affection and approval. She pointed out that when the child enters school, the attitudes he has previously had toward parents may be transferred into his relationship with his teachers. If his attitude has been positive and he has liked his parents, he will tend to feel the same way toward teachers. Conversely, a hostility colored attitude toward parents will tend to result in a negativistic attitude toward teachers and instruction. In the same vein, Liss (30:106-107) stated that "learning is conditioned by the parent-child relationship. The earlier relationship conditions the subsequent teacher-student pattern for good or evil. . . ." Later in the same article, he commented

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*Parenthesis are mine.

> The graduation, as it were, from parents and parent surrogates at home to the educators who function in nursery and kindergarten provides an elaboration of the social structure with which the growing child experiments.

Liss attempted to demonstrate that this relationship is not one sided by pointing out how each teacher unconsciously assumed a parental role and how each class represented his "phantom children who gratify a fundamental biological urge inherent in all of us."

Other psychoanalysts have concentrated on the relationships of reading disabilities and disturbances in the oral-anal phases of psychosexual development. Glover (18:144) pointed out the oral character of reading and Strackly (47:101-103) elaborated the concept that reading "is a way of eating another's words. . . ." He differentiated between light easy reading which is like drinking or sucking and reading of difficult works which we must get our teeth into and chew up. He distinguished between two kinds of attitudes in reading, corresponding to the two stages in the oral phase, "a preambivalent one where everything seems to go smoothly and easily, and an ambivalent one where difficulties arise at every step." The inhibitions and difficulties of reading,

> chiefly arise where gratifications belonging to the second oral phase are predominant in reading and where the reader's attitude is thus essentially ambivalent. If in such a situation the sublimation is unstable or incomplete, there will be immediate tendency to the release of a number of sadistic and destructive impulses. Each word is then felt to be an enemy that is being bitten up, and further for that very reason as an enemy that may in turn be threatening and dangerous to the reader.

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Others who have dealt with the same type of problem include Liss (31:126-131) and Hammill (20:273-275). Blanchard (4:169-170) turned to the psychoanalytic concept of sublimation for an explanation of reading disability. She stated:

> A well known psychoanalytic contribution to education is the concept that learning offers an opportunity for the sublimation of instinctive drives. In the first years of life, the child tends toward fairly free and open expression of sexual curiosity and interests, and of aggression, with the latter often directed against animals or people. During the latter part of his preschool life, if development has been normal, the child begins to control and modify such instinctive behavior. . . . By the time a child enters school, he should at least be started on this road of sublimation of sexual interest and aggression and his school work offers a chance for further sublimation. If the child has acquired very little capacity for sublimation, he may not be able to take advantage of the opportunity for it afforded by school tasks. He is apt then to develop into a poor student and a behavior problem as well, but will be more likely to fail in all subjects than to have a disability for some one, such as reading. In the reading disability cases, more frequently the child will be suffering from severe unconscious conflicts, with repression of impulses and imperfect capacity to sublimate them, so that much of his energy is used up in maintaining repression and not enough is left over for such a complex mental process as learning to read.

Klein (27:369) in a like fashion commented how a "good" teacher ties in the sublimated energy from the pupil's component instinctual drives with the learning process. He advocated directing, stimulating, and gratifying the pupil's curiosity and need to learn. The teacher should rely on his wish to please his parents and his teacher and his desire to learn rather than his fear of their displeasure or punishment. He concluded that the teacher's task becomes an impossible one with the severely disturbed child when because of fixation or regression the child's sublimations are unstable or feeble.

In this review of the related literature on the self-concept and emotional factors in reading, one has seen throughout the years the emphasis in the research develop in a certain pattern. After the first studies relating reading disability to emotional disturbance, the emphasis shifted to the causative factors in emotional development which led to reading difficulties. This was followed by the comparative studies matching groups of good and poor readers and attempting to evaluate the personality differences. The multidiscipline approach also had its heyday, employing the services of professionals from many different areas in attacking the reading problem. This method was followed by detailed personality studies of retarded readers sometimes including the use of projective techniques. The most recent development was the psychoanalytic studies and their approach to the problem through theory. Of course, all of these forms of research or differences in methodology are still employed today and the pattern described above does not necessarily represent a progressive development.

Despite the varied methodology and the myriad of studies in this area, none touched directly on the present study concerning the relationship between immature self-concept and reading disability. To be sure, some researchers in discussing the relationship between reading difficulties and personality factors may well have included self-concept in the personality organization but without isolating it or treating it as a separate and distinct concept. The research in this area is

marked by its general nature in an attempt to define overall principles. It is therefore understandable that the literature would have only an indirect bearing on a specific study in this area such as the one under consideration.

Self-Concept and Emotional Factors in Arithmetic

While many studies have been completed relating emotional factors to reading, few have been done in arithmetic. Plank and Plank (44:275) experienced the same difficulty, stating:

> A number of investigators have dealt with the influence of the functioning of the ego upon the ability to learn to read; few have looked into the inner motivations for learning to deal with numbers, or into the forces that can block the learning of arithmetic in an intelligent child. Literature on this special problem is limited. The unconscious symbolic meaning of certain numbers has been noted . . . and how this symbolic character . . . may interfere with learning has been described in a few case studies. Others have tried to define some of the meanings of mathematical interests as they appear in clinical material from adult analysis. Other relations between personality and arithmetical learning are still awaiting study.

Studies on the more general problem of emotional and personality factors in learning difficulties have already been reported in the previous section (4:170, 11:87, 27, 369, 30: 106-107, 37:329). It is assumed that the implication of these studies to reading disability would equally apply to arithmetic disability.

The psychoanalysts, in particular, have studied the problem of symbolism in mathematics. Pearson (37:330) reported a case of a ten year old who was academically successful

except in arithmetic. An analysis of his mathematics revealed that he was successful on even difficult problems unless they included the numeral three. On these problems he made consistent errors. Pearson traced this problem back to the first grade where, when the student was slow in learning to write a three, he was struck several times by the teacher. As a result, claimed Pearson, he associated the number three with pain and avoided the use of this number whenever possible. Pearson failed to reveal why the student had difficulty in writing the number in the first place. Perhaps the teacher's action served to further negatively condition an already existing condition.

Pearson (37:331) reported another case of a fourteen-year-old girl unable to perform long division. This was due, according to Pearson, to the girl wetting herself during an instructional period of long division and thus associating long division with shame and guilt.

Wegrocki (53:230), another psychoanalyst, reported the case of a patient with a phobia for even numbers. Wegrocki's explanation was that even numbers, for this patient, were associated with the idea of "couple" and with his unconscious sexual feelings toward his mother and his desire to be coupled with her.

Jeffreys (25:145) commented on numerical symbolism in general.

> Numbers in language, folklore and superstition appear to carry effects derived from pre-genital situations,

> mainly oral and unrethral. The interest in odd numbers, and especially primes, is originally phallic, while even numbers and especially those with a large number of factors are associated with ambivalent attitudes to the mother.

Jeffreys offered no research to support his contentions.

Klein (27:371) pointed out that narcissistic pupils meet their greatest difficulty in mathematics and the sciences where sustained effort and concentration on details is more necessary. He also felt (27:385) that well sublimated obsessional characters are often excellent mathematicians but he failed to give any evidence or theoretical support.

It has been stated in discussing the problem of this study that the first stages of reading are more difficult to grasp than the first stages of arithmetic. Blanchard (4:171-172) commented on this problem as follows:

> In the primary grades, learning the fundamentals of reading is a more complicated mental process, probably requiring greater expenditure of energy and better sustained attention than learning the first steps of arithmetic. Hence, a child may have enough energy left over from maintaining repressions and may be able to sustain attention sufficiently well to learn his number work but not his first reading lessons.

As can be seen from the above reviews, little has been published with a direct bearing on the relationship between immature self-concept and arithmetic disability. Much less has been done in this area than in reading and what has been done remains theoretical and almost haphazard and not offering a consistent and complete approach.

CHAPTER III

PROCEDURE

This chapter is devoted to the procedure followed in this study. The sources of the data, the method of procedure, and the treatment of the findings will be described and explained.

Adaptation and Validation of the SCS-DAP

A primary problem in any correlational study is to obtain objective (quantitative) measurements of the traits under consideration. In this study the two traits to be correlated were scholastic achievement (mainly reading and arithmetic) and self-concept. Achievement test scores were easily obtained from the Flint, Michigan, Public School System. However, a comprehensive review of literature failed to unearth any objective measurement of self-concept. Certain projective techniques, such as the Rorschach Ink Blot Test, Thematic Apperception Test, and Children's Apperception Test purport to measure some aspects of self-concept without defining it as an entity but the results remain unquantified, with questionable validity. It readily became apparent from this review that a new tool to measure self-concept would have to be developed for this study. Therefore, this study was

divided into two main parts: a validating procedure to devise a measurement of self-concept and the correlating procedure of relating immature self-concept with certain educational disabilities.

Certain criteria were employed in the selection of this tool. (1) The technique, ideally, should be non-verbal in nature as some of the subjects to whom it would be administered would possess reading disabilities. (2) It should be projective in nature so the elements it was to measure would not be within the conscious control of the subjects. (3) It should not be perceived as a test by the subjects so as not to pose a conscious or unconscious threat. (4) It should lend itself to quantitative treatment. (5) It should be easily and rapidly administered to a group of subjects with equal ease and facility of scoring. After several false leads, the Machover Draw-A-Person Test (henceforth to be referred to as the DAP) as devised by Karen Machover was selected for having met all the above criteria as well as requiring the subject to perform a task with which he was already familiar. The DAP consists of a freehand drawing of a person, usually a self-portrait. It was felt that the drawing of person, particularly as it involves a projection of the body image, provided a natural vehicle of the expression of one's body needs, conflicts, and self-concept. Unfortunately, however, the DAP provided no scoring scheme of any type and therefore it was necessary to develop a quantifying procedure for this technique.

An examination of numerous drawings revealed several categories which, if quantified, gave promise to reflect the degree of maturity of the self-concept as defined in Chapter I. These categories, thirteen in number, are listed and defined as follows:

1. Shading. Light dim, subtle and uncertain lines which furtively accent particular parts of the figure. Patterned or styled shading.
2. Reinforcement. Shading of the boundaries of clothing or the figure. Heavy dark lines or parts of the drawing emphasized through tracing over the same area.
3. Erasures. Any attempt to alter or perfect all or part of the drawing through erasure.
4. Detail in figure. Unessential features or details added to the figure or background.
5. Sketchy lines. Parts of the body, particularly the outline defined by light, broken, blurred, vague, fuzzy lines.
6. Transparency. Body of figure completely transparent or inadequately clothed so that body parts ordinarily covered are shown.
7. Asymmetry. Imbalanced and lopsided arrangement of the body parts in respect to size, shape, or position on the opposite sides of the center.
8. Distortion. Any unnaturalness or irregularity in

form. Any non-human aspects to figure drawn often displayed by size disproportion.

9. Incompleteness. Figure drawn incomplete, lacking in significant body parts or clothing.
10. Mixed age. Disparity in the physiological maturation of various body parts, such as breasts emphasized in an otherwise childish body.
11. Opposite sex identification. Figure drawn is of the opposite sex of the subject or if of the same sex, opposite sex characteristics are displayed.
12. Primativeness. Overall figure is crudely and roughly drawn. Specific points are confusion of full face and profile view of the head, mouth emphasis, trunk incomplete, omission of the neck, and disorganized body representation.
13. Immaturity. Elaborate treatment of the midline, such as the Adam's apple, tie, buttons, buckle, and fly on trousers. Emphasis on mouth and/or breasts.

With these thirteen categories defined, it then became possible to rate each category of a drawing on a five-point rating scale with a score of one indicating a great deal of the characteristic present and a score of five indicating little or none of the characteristic displayed in the drawing. In this way the quantification of the Self-Concept Scale of the Draw-A-Person Test (henceforth referred to as the SCS-DAP) was established.

In order to determine the validity of this instrument, a psychiatric social worker other than the experimenter was asked, following an hour interview, to rate for self-concept a selected group of children on an especially devised rating scale. The clinician rated each subject for self-confidence, freedom to express appropriate feelings, liking for one's self, satisfaction with one's attainments, and the feeling of being appreciated by others on a five-point rating scale with the total score representing the clinician's evaluation of the self-concept of each subject. The subjects for this validity study consisted of forty selected referrals to the Flint Child Guidance Clinic, equally divided among the sexes; twenty between the ages of seven to nine, and twenty between the ages of eleven to thirteen with half of each group possessing one or more educational disabilities. The clinician who was unaware of the presence or absence of educational disabilities in each subject, was also requested to administer the SCS-DAP at the conclusion of his interview. This test was then scored by the author without knowledge of the self-concept rating made by the clinician. It was then possible to correlate (Pearson product moment co-efficient of correlation) the scores from the rating scale for self-concept obtained by the clinician with the scores from the SCS-DAP to complete the validation study. In addition, the results of the SCS-DAP were correlated (biserial co-efficient of correlation) with the presence or absence of educational

disability to provide a pilot study for the main body of research.

It appeared likely that some of the thirteen categories of the SCS-DAP contributed more greatly to the total score than did others. Therefore, in order to further revise and refine the SCS-DAP, a discrimination technique to determine which categories more greatly discriminated between mature and immature self-concept was employed. The category scores for those subjects scoring in the upper twenty-seven per cent (mature self-concept) of the SCS-DAP (eleven in number) were compared with the category scores for those individuals scoring in the lower twenty-seven per cent (immature self-concept). Those categories which yielded the greatest difference, nine in number, were retained in the revised form of the SCS-DAP.

With these steps completed, a technique meeting the criteria listed above, validated on a pilot sample and revised and refined by a discrimination procedure was now available for the main body of research.

The Main Body of Research

Description of the Population and Academic Disability Instruments Employed. The SCS-DAP was then administered to the third and sixth grades of the Washington, Durant, and Coolidge Schools of the Flint, Michigan, Public School System. These three elementary schools were chosen after consultation with certain school personnel for being most representative

of the general school population. Two different grade levels were included so as to determine age differences, if any, and to demonstrate that the relationships listed in the hypotheses existed on more than one age or grade level. It was felt that this study could not be applied to first and second grade children as educational disabilities of sufficient magnitude would not yet have appeared in these grade children. The third and sixth grades were chosen specifically for having met the above criteria in addition to being the two elementary grades for whom national achievement tests were administered routinely by the school system. These achievement tests, the results of which were used in this study, were the Stanford Achievement Test, Elementary Form L, for the third grade and the Iowa Test of Basic Skills, Advanced Battery for the sixth grade. National norms were employed in deriving the achievement level. A random selection of fifty subjects with reading disability, fifty subjects with arithmetic disability, and fifty subjects with no educational disability were chosen from the third grade and an identical sample from the sixth grade making a grand total of three hundred subjects and constituted the research group for this study.

Administration of the SCS-DAP. The SCS-DAP was administered to these subjects in their rooms in small groups ranging from twenty-four to thirty-three children. Eight and one-half by eleven inch white paper was provided along with an adequate supply of pencils. The subjects were

requested to print their name, grade, and school on this paper and then turn the paper over so that they might have a completely free side of paper for their drawing. The following instructions were then read:

> I am interested in finding out some things about children and their drawings. I would like you to draw a picture of a person for me. Please draw all of the person. If you like, you may erase. Be sure to draw all of the person.

The subjects were allowed to have as much time as they wished to complete the drawing but all were usually done after fifteen minutes had elapsed. The drawings were scored by the author prior to the collection of the achievement test results to prevent contamination.

Statistical Treatment of the Data. Inasmuch as one variable of this correlational study was continuous (SCS-DAP) while the other variable was non-continuous or dichotomous (presence or absence of educational disability) biserial correlation was selected as the appropriate statistical measure to test the hypotheses under consideration. The standard error of the biserial correlation was calculated to indicate significance of the obtained correlations. Two different tests of the significance of the differences of the obtained correlations were calculated: the one tailed test to indicate whether one correlation was significantly higher or lower than another (9:258) and the two tailed test to measure the significance of the obtained differences of two correlations (9:304-307).

CHAPTER IV

DATA AND RESULTS

This chapter will be devoted to the data and results obtained in the study under consideration. For the purpose of ease in reading and understanding these data and results the chapter will be divided into two main sections, the first dealing with the validating process and the second the main body of research and the testing of the four major hypotheses. Included will be all the pertinent statistics of this research.

The Adaptation and Validation of the SCS-DAP

Following the selection of the thirteen categories of the SCS-DAP for possessing face validity, the SCS-DAP was administered to forty subjects by another clinician who also completed the Judge's Rating Scale (JRS) for each subject following an hour long psychiatric interview. Machine correlation was calculated using the Pearson product moment coefficient of correlation and the results are listed in Table I.

In the same pilot study biserial correlation was calculated to determine the magnitude of the relationship between SCS-DAP (self-concept) and the presence or absence of educational disability. The statistics for this correlation are shown in Table II.

TABLE I

THE RELATIONSHIP BETWEEN THE JUDGE'S RATING SCALE FOR SELF-CONCEPT AND THE SCS-DAP

	Judge's Rating Scale		SCS-DAP
N	40		40
Mean	15.9		32.8
Range	9-24		19-48
S.D.	6.04		7.11
r		.51*	
S.E. of r		.169	

* Significant at one per cent level

TABLE II

THE RELATIONSHIP BETWEEN SELF-CONCEPT AND THE PRESENCE AND ABSENCE OF EDUCATIONAL DISABILITY -- A PILOT STUDY

	N	Mean	S.D.	r.	S.E. of r
Educational Disability	20	40.6	7.16	.60*	.14
Non-educational Disability	20	34.0	7.05		

* Significant at one per cent level.

An item analysis discrimination type technique was employed to revise and refine the original thirteen categories of the SCS-DAP. The mean score for each category for those scoring in the upper twenty-seven per cent was compared the mean score for each category for those scoring in the lower twenty-seven per cent. Those categories yielding the greatest difference in mean scores between the two groups were retained in the final form of the SCS-DAP. The cut-off point was

arbitrarily set at a mean difference of 2.0 SCS-DAP points. The results of this refinement technique are shown in Table III.

TABLE III

ITEM ANALYSIS RESULTS OF THE ORIGINAL FORM OF THE SCS-DAP

Category	Mean for Upper 27%	Mean for Lower 27%	Difference
1. Opposite sex identification	4.2	1.2	3.0
2. Sketchy lines	4.2	1.5	2.8
3. Incompleteness	4.3	1.7	2.6
4. Transparency	3.7	1.2	2.5
5. Immaturity	4.3	1.8	2.5
6. Primativeness	4.1	1.7	2.4
7. Reinforcement	3.9	1.9	2.0
8. Erasures	3.6	1.6	2.0
9. Distortion	4.0	2.0	2.0
10. Asymmetry	3.4	1.6	1.8
11. Detail in figure	3.7	2.0	1.7
12. Shading	2.3	1.8	0.5
13. Mixed age	1.6	1.9	-0.3

The Testing of the Four Major Hypotheses

The emphasis in this study is placed on the relationship of immature self-concept as measured by the SCS-DAP and certain educational disabilities in the third and sixth grades as measured by standard achievement tests. Biserial correlations were calculated to determine the magnitude of these relationships and the results are summarized in Table IV.

Two tailed tests of significance (9:304-307) employing a probability formula (p) were calculated to measure the significance of the differences in the obtained correlations.

TABLE IV

THE RELATIONSHIP BETWEEN IMMATURE SELF-CONCEPT AND CERTAIN EDUCATIONAL DISABILITIES

	N	Mean SCS-DAP	S.D., SCS-DAP	r	S.E. of r
3rd Grade Reading	100	27.6	7.17	.72*	.073
3rd Grade Arithmetic	100	27.3	7.14	.78*	.064
3rd Grade Median	30	27.5	7.17	.60*	.100
6th Grade Reading	100	30.4	7.23	.62*	.090
6th Grade Arithmetic	100	30.0	7.41	.68*	.080

* Significant at one per cent level

One tailed tests of significance (9:258) employing Fisher's "t" were also calculated to determine if one correlation was significantly higher or lower than another. The results of these tests of significance are shown in Table V. None of the obtained probabilities were significant. The Fisher's "t's" which were significant at the one per cent level are indicated by an asterisk.

TABLE V

ONE AND TWO TAILED TESTS OF SIGNIFICANCE OF THE DIFFERENCES OF THE OBTAINED CORRELATIONS

(Underlined groups significantly higher than other)

	Probability (two tailed test)	Fisher's "t" (one tailed test)
Reading and Arithmetic, 3rd grade	.33	.97
Reading and Arithmetic, 6th grade	.46	.74
Reading and Median, 3rd grade	.13	1.53*
Arithmetic and Median, 3rd grade	.09	2.50*
Reading, 3rd and 6th grades	.18	1.32*
Arithmetic, 3rd and 6th grades	.13	1.53*

* One significantly higher than other.

CHAPTER V

DISCUSSION OF RESULTS

This chapter will be devoted to a discussion of the results and findings of this study as displayed in Chapter IV. Again the data falls logically into two separate but interrelated divisions, those dealing with the validating study and the results of the main body of research. Therefore, this chapter has been divided into these two major sections.

Adaptation and Validation of the SCS-DAP

Table I indicates the data obtained in correlating the Judge's Rating Scale and the SCS-DAP. It will be noted that the mean of the Judge's Rating Scale was less than half the magnitude of the mean of the SCS-DAP but that the standard deviations for these two scales were not as widely separated (Judge's Rating Scale S.D. = 6.04, SCS-DAP S.D. = 7.11). An explanation of this is found in the fact that the range of scores for the Judge's Rating Scale (13 points) was again less than half than the range of the SCS-DAP (29 points). If plotted on an axis the distribution of the Judge's Rating Scale scores would cover less than half the distance of that covered by the SCS-DAP distribution of scores. The greater spread of

the SCS-DAP scores more nearly approaches a normal distribution of scores with a group of this size. It will be noted that plus and minus two standard deviations of the SCS-DAP scores essentially included the entire range of scores obtained in this distribution, a fairly normal distribution for a group of this size.

One can only speculate as to the reasons for the lack of dispersion of the Judge's Rating Scale scores. Any rating scale is not completely successful in obtaining objectivity and accuracy. When this device is employed by a clinician keenly sensitive to its limitations, it is quite possible that he then becomes overly cautious in evaluating the extreme subjects, overrating those scoring in the lower end of the scale and underrating those scoring in the upper end of the scale. This would result in the extreme subjects being scored closer to the mean and a relatively small dispersion of scores. It is recognized that this explanation is not testable with the data available and falls outside the scope of this study but is offered as a possible reason for the lack of dispersion in the distribution of scores of the Judge's Rating Scale.

The correlation obtained of .51 (Pearson product moment coefficient of correlation by machine) between the Judge's Rating Scale and the SCS-DAP is of sufficient magnitude to be considered very significant (one per cent level of confidence). Thus it would appear that even if the clinician

did err in being overly cautious and ranking extreme subjects closer to the mean, there was still considerable agreement between his ratings and those obtained by the SCS-DAP.

Because of the obtained correlation, the SCS-DAP was considered to be a valid tool for the measurement of the maturity of the self-concept. It was recognized that rating scales have decided limitations in a study of this sort and their application induces error but the magnitude of the correlation was judged to be sufficiently great to warrant the use of the SCS-DAP in the major body of research. The magnitude of the standard error would indicate that there is less than one chance in a hundred that this correlation was not significant.

The validating group was also investigated in another fashion. Half of this group of subjects possessed educational disabilities of some sort (retarded one or more grade levels in one or more subject areas) while the other half possessed no educational disabilities. In order to serve as a pilot study for the main body of research, a correlation was calculated between the presence of educational disability and scores on the SCS-DAP. Biserial correlation was the statistic chosen for this study as one variable was continuous (SCS-DAP) while the other was dichotomous (presence or absence of educational disability). The results of this study are shown in Table II.

The correlation obtained for this study, .60, was very significant and could occur by chance less than one time out of a hundred. This would indicate that a positive and significant relationship exists between educational disability and immature self-concept as measured by the SCS-DAP.

The SCS-DAP consisting of thirteen categories was now considered to be validated. However, it seemed apparent that some of these thirteen categories probably contributed more greatly to the final score that did others. In order to investigate this, the mean score for each category for the upper and lower twenty-seven per cent of the group was calculated. Those categories displaying the greatest discrimination between the upper and lower twenty-seven per cent of the group were retained in the revised SCS-DAP. The results of this investigation are shown in Table III.

It was arbitrarily decided to exclude from the revised SCS-DAP any categories possessing less than two points discrimination between the upper and lower twenty-seven per cent of the group. This then excluded from the revised SCS-DAP the four categories of asymmetry, detail in figure, shading, and mixed age, the latter of which was actually negatively contributing to the final result. With the exclusion of these four categories it is possible that a recalculation of the correlation between the Judge's Rating Scale and the revised SCS-DAP would result in a correlation of greater magnitude although this investigation was not made. The

result of this item analysis technique was a briefer instrument that supposedly was more sensitive in discriminating mature from immature self-concept.

The Four Major Hypotheses

The Relationship Between Immature Self-Concept and Reading Disability. The results of the main body of research are found in Tables IV and V.

Hypothesis one stated that a significant and positive relationship exists between immature self-concept and reading disability. The statistic chosen to test this hypothesis was biserial correlation inasmuch as one variable was dichotomous (presence or absence of reading disability) while the other variable was continuous (SCS-DAP scores). The correlations obtained were .72 on the third grade level and .62 on the sixth grade level both of which are very significant (one per cent level). For this reason hypothesis one was accepted. Therefore, it would seem that disturbances, regressions, or fixations in the development of the self-concept are often associated with reading disability in the elementary school.

The Relationship Between Immature Self-Concept and Arithmetic Disability. Hypothesis two stated that a significant and positive relationship exists between immature self-concept and arithmetic disability. Again biserial correlation was calculated to test this hypothesis. The results of correlations of .78 on the third grade level and .68 on the sixth

grade level are very significant (one per cent level). Thus hypothesis two was accepted. Therefore, it would appear that any interruptions in the development of the self-concept are often associated with arithmetic disability in the elementary school.

A Comparison of the Relationship Between Immature Self-Concept and Reading and Arithmetic Disability and the Relationship Between Immature Self Concept and Disability in Other School Subjects. Hypothesis three stated that the relationship between immature self-concept and reading and arithmetic disability is greater than the relationship between immature self-concept and disability in other school subjects. The median score of the Standford Achievement Test was selected for this investigation. Therefore, the subjects included Literature (acquaintance) history, geography, language usage, elementary science, and spelling. Biserial correlation was again the statistic chosen to test this hypothesis. The correlation obtained between immature self-concept and the median score of the achievement test was .60 on the third grade level. The difference between this correlation and that obtained for the reading group was not significant. Stated in probability terms there are thirteen chances in one hundred that there is actually no difference in these correlations so the null hypothesis cannot be rejected. However, the correlation obtained for the reading group was very significantly higher than that obtained for the median group when the one tailed test of

significance is employed. The same relationship was found in investigating the differences in the correlations for the median and arithmetic groups. The difference was not significant but the arithmetic correlation was significantly higher than the median correlation (9:258, 304-307).

It should be pointed out that the median scores included reading and arithmetic scores and since the reading and arithmetic groups possessed higher correlations with immature self-concept, this would tend to increase the correlation obtained for the median group. If the reading and arithmetic scores were excluded, the differences should be greater and perhaps significant. However, hypothesis three is best tested by the one tailed test of significance which evaluates if one correlation is significantly higher than the other and this test would tend to prove that the relationship between immature self-concept and reading and arithmetic is greater than the relationship between immature self-concept and other school subjects. This would indicate that interruptions in the development of the self-concept are more closely related to reading and arithmetic disability than other academic subjects.

A Comparison of the Relationship Between Immature Self-Concept and Reading Disability and the Relationship Between Immature Self-Concept and Arithmetic Disability. The fourth hypothesis stated that the relationship between immature self-concept and reading disability is greater than the relationship between immature self-concept and arithmetic disability.

On both the third and the sixth grade levels the correlation between immature self-concept and arithmetic disability was greater in magnitude than the correlation between immature self-concept and reading disability which made it necessary to reject the fourth hypothesis. An application of both one and two tailed tests of significance failed to yield any significance in favor of arithmetic, however.

One can only speculate as to why the arithmetic group correlations were higher, although not significantly, than the reading group correlations. Perhaps the arithmetic process is so foreign and not in keeping with the ego needs of the child and in distinct disparity with his self-concept expectations of himself that it is too difficult for him to incorporate and identify with such material. In contrast, reading content is often more akin to life activities and therefore more acceptable and in keeping with the emotional needs of the child. It is suggested that these factors were understressed in the development of this hypothesis. Such a speculation is grounds for further research. At any rate, it appeared that the fourth hypothesis had to be rejected.

It will be noted from an inspection of Table IV that the correlations obtained between both reading disability and immature self-concept and arithmetic disability and self-concept is lower for the sixth grade than the third grade. While the difference was not significant, the third grade correlations were significantly higher than the sixth grade correlations.

These differences suggested that the sixth grade child's academic ability in arithmetic and reading is not as highly related to immaturity of the self-concept as that ability of the third grade child. Perhaps this is merely a phenomenon of growth but it is suggestive that personality and intellectual components other than self-concept come to bear on academic problems at the sixth grade level more than on the third grade level. It should be pointed out that the sixth grade child has entered into the latency period of psychosexual development with its greater emphasis on acceptance of adult standards and values, conformity, sublimation and control over instinctual drives. Such a condition would especially assist the emotionally immature child in the improvement of academic attainment and would tend to decrease the magnitude of the correlation between academic disabilities and immature self-concept. This speculation, as to the reason for the differences in the correlations obtained on the third and sixth grade levels, falls outside the scope and problem of this study and, therefore, was not tested. Additional research into this problem is indicated.

CHAPTER VI

SUMMARY AND CONCLUSIONS

Summary

This study investigated the relationship between immature self-concept (defined in terms of self-confidence, freedom to express appropriate feelings, like for oneself, satisfaction with one's attainments, and feeling of personal appreciation by others) and certain educational disabilities, mainly reading and arithmetic. This study was based on the theory that the self-concept was a developmental phenomenon whose final stages included incorporation and identification, and that any interruption in this developmental process limited and distorted the subsequent incorporation, identification and therefore learning.

A comprehensive review of the literature failed to reveal any studies directly related to this problem. Most of the studies in reading dealt with the total personality or emotional problems in general in attempts to define general principles. The studies in arithmetic were few in number and not directly related to the problem.

The method of measuring self-concept was the Draw-A-Person Test (abbreviated to SCS-DAP) which was validated for

self-concept with a pilot group. This rating scale was then revised and refined before being applied to this study.

The research group consisted of three-hundred subjects (one hundred with reading disability, one hundred with arithmetic disability, and one hundred with no educational disability) from the third and sixth grades of three elementary schools in Flint, Michigan. The SCS-DAP was administered to these subjects, achievement test results were obtained, and correlations were calculated between reading and arithmetic disabilities and SCS-DAP scores. The differences and significance of differences between some of correlations was also calculated.

Conclusions

The following conclusions were drawn from this study:

1. A positive and very significant relationship existed between immature self-concept and reading disability. This relationship was very significantly greater on the third grade than on the sixth grade level.

2. A positive and very significant relationship existed between immature self-concept and arithmetic disability. This relationship was very significantly greater on the third grade than on the sixth grade level.

3. The relationship between immature self-concept and reading and arithmetic disability was significantly greater than the relationship between immature self-concept and

disability in other school subjects. Thus immature self-concept appeared to be more greatly associated with disability in reading and arithmetic, than in other school subjects.

4. The relationship between immature self-concept and reading disability was of essentially the same magnitude as the relationship between immature self-concept and arithmetic disability. Immature self-concept appeared to be as greatly associated with reading disability as arithmetic disability.

Additional Research Indicated. It would be highly desirable to accomplish a reliability study of the SCS-DAP. This would serve not only to indicate the size of the error of rating scales but the ability of the SCS-DAP to repeatedly measure with consistency and agreement.

Age and sex differences of the relationships measured should also prove to be a fruitful ground. This study indicated that certain age differences do exist between the third and sixth grade for both reading disability and arithmetic disability and immature self-concept. Age differences at the Junior High School, Senior High School, and even college warrant additional study. Sex differences were not all investigated but could prove very fruitful.

While the relationship between immature self-concept and reading and arithmetic disability has been demonstrated, other individual subject areas were not investigated. The investigation of these other subject areas, treated individually and following the same methodology seems indicated.

It is well known that remedial reading and remedial arithmetic is quite successful with some cases. The effect that these experiences might have on the self-concept as measured by the SCS-DAP represented another area for further investigation.

An additional study that warranted investigation is that of individual personality components other than self-concept and their relationship with educational disabilities. It is quite feasible that other personality components might bear a greater relationship to educational disabilities than immature self-concept.

Implications

This study has served to point out the close association of immature self-concept with academic disability particularly in reading and arithmetic. The predictive use on a group basis of the SCS-DAP has not been stressed but presented an important implication of this study. It may well be possible to identify to a considerable extent, through application of the SCS-DAP, students who will later present academic disabilities.

The data of this study suggested that the more mature the self-concept the greater the facility in academic learning. This, in turn, suggested the advisability of delaying complex academic tasks, such as reading and arithmetic to a later

phase of the student's life when he has presumably attained a more mature self-concept.

What can be done toward accelerating the rate of maturation of the self-concept? It will be recalled, that for the purpose of this study, the self-concept was viewed as resulting from a dynamic interaction between the individual and his environment. The school and the teacher represent an important segment of the environment of the child and can greatly contribute to his maturity of self-concept. The application of mental health principles to an even greater extent may well have a decided effect on maturation of the self-concept.

BIBLIOGRAPHY

1. Bellack, Leopold, The Thematic Apperception Test and the Children's Apperception Test in Clinical Use. New York: Greene and Stratton, 1954. pp 282

2. Bennett, C. A., "A Survey of 517 Cases of Reading Retardation," Supplementary Educational Monographs, 52:47-82, July, 1942.

3. Blanchard, Phyllis, "Reading Disabilities in Relation to Difficulties of Personality and Emotional Development," Mental Hygiene, 20:384-413, 1936.

4. _____, "Psychoanalytic Contributions to the Problems of Reading Disabilities," The Psychoanalytic Study of the Child. New York: International Universities Press, 1946. pp 163-187.

5. Bronner, A., The Psychology of Special Abilities and Disabilities. New York: Little Brown, 1936. pp 284.

6. Burt, C., Mental and Scholastic Tests. London: King and Son, 1921. pp 322.

7. Castner, B. M., "Prediction of Reading Disability Prior to First Grade Entrance," American Journal of Orthopsychiatry, 5:375-387, October, 1955.

8. Challman, R. C., "Personality Maladjustment and Remedial Reading," Journal of Exceptional Children, 6:7-11, October, 1939.

9. Edwards, Allen L., Statistical Methods for the Behavioral Sciences. New York: Rinehart and Company, 1955. pp 542.

10. Fernald, G. M., Remedial Techniques in Basic School Subjects. New York: McGraw-Hill Book Company, 1943. pp 504.

11. Freud, Anna, "Psychoanalysis and the Training of the Young Child," Psychoanalytic Quarterly, 4:72-187, 1935.

12. Gaun, Edith, Reading Difficulty and Personality Organization. New York: King's Crown Press, 1945. pp 508.

13. Gates, Arthur, "Failure in Reading and School Maladjustment," Journal of the National Education Association, 15:205-6, October, 1956.

14. _____, "The Role of Personality Maladjustment in Reading Disability," Journal of Genetic Psychology, 59:78-83, September, 1941.

15. _____, The Improvement of Reading. New York: Macmillan Company, 1955. pp 668.

16. _____, The Psychology of Reading and Spelling, With Special References to Disabilities. New York: Macmillan Company, 1922. pp 384.

17. _____, and Guy L. Bond, "Failure in Reading and Social Maladjustment," Journal of the National Education Association, 25:205-275, 1936.

18. Glover, E., "Notes on Oral Character Formation," International Journal of Psychoanalysis, 4:142-148, 1925.

19. Gray, Clarence, Deficiencies in Reading Ability: Their Diagnosis and Remedies. Boston: Little Brown, 1922, pp 409.

20. Hammill, R. C., "Emotional Factors in Mental Retardation, A Reading Problem," Archives of Neurology and Psychiatry, 23:273-275, 1937.

21. Hincks, E. M., "Disability in Reading and its Relation to Personality," Harvard Monographs in Education, 7:32-34, August, 1926.

22. Hollingworth, Leta, Special Talents and Defects. New York: Macmillan Company, 1923. pp 472.

23. Hosey, G., "Personality Maladjustment Resulting from Retardation in Reading," School and Community, 23: 273-275, 1937.

24. Jameson, Augusta, "Methods and Devices for Remedial Reading," Supplementary Educational Monographs, 49:170-178, 1939.

25. Jeffreys, A., "The Unconscious Significance of Numbers," International Journal of Psychoanalysis, 17:142-148, 1936.

26. Kirk, Samual A., "The Effects of Remedial Reading on the Educational Progress and Personality Adjustment of High Grade Mentally Deficient Problem Children: Ten Case Studies," Journal of Juvenile Research, 28:140-162, 1934.

27. Klein, Emanuel, "Psychoanalytic Aspects of School Problems," The Psychoanalytic Study of the Child. New York: International Universities Press, 1949. pp 369-390.

28. Klopfer, Bruno and Douglas Kelley, The Rorschach Technique. New York: World Book Company, 1942. pp 436.

29. Ladd, Margaret, "The Relation of Social Economic, and Personal Characteristics to Reading Ability," Teacher's College Contributions to Education, 582:531-535, 1933.

30. Liss, Edward, "Motivations in Learning," The Psychoanalytic Study of the Child. New York: International Press, 1955. pp 100-116.

31. _____, "Libidinal Fixation as Pedagogic Determinants, American Journal of Orthopsychiatry, 5:126-131, 1936.

32. Machover, Karen, Personality Projection in the Drawing of the Human Figure. Springfield, Illinois: Bannerstone House, 1950. pp 181.

33. Missildine, W. H., "The Emotional Background of Thirty Children with Reading Disabilities with Emphasis on Coercive Elements," Nervous Child, 5:263-272, July, 1946.

34. Monroe, Marion, Children Who Cannot Read. University of Chicago Press, 1932. pp 206.

35. _____, Methods for Diagnosis and Treatment of Cases of Reading Disability. Clark University Press, 1928. pp 482.

36. _____, and Bertie Backas, Remedial Reading: A Monograph in Character Education. Boston: Houghton Mifflin Company, 1937. pp 227.

37. Pearson, Gerald, "A Survey of Learning Difficulties," The Psychoanalytic Study of the Child. New York: International Universities Press, 1952. pp 322-386.

38. Plank, Emma and Robert Plank, "Emotional Components in Arithmetical Learning as Seen Through Autobiographies," The Psychoanalytic Study of the Child. New York: International Universities Press, 1954. pp 274-293.

39. Robinson, Helen, "Personality and Reading," Modern Educational Problems, 22:87-99, October, 1952.

40. _____, Why Pupils Fail in Reading. Chicago: University of Chicago Press, 1946. pp 429.

41. _____, "Manifestations of Emotional Maladjustments," Supplementary Educational Monographs, 68:114-122, June, 1949.

42. Russell, David H., "Reading Disabilities and Mental Health," Understanding the Child, 16:24-32, January, 1947.

43. Sherman, Mandil, "Emotional Disturbances and Reading Disability," Supplementary Educational Monographs, 49:126-134, November, 1939.

44. Shilder, Paul, "The Image and Appearance of the Human Body," Psyche Monograph, 6:22, September, 1935.

45. Snygg, Donald and A. W. Combs, Individual Behavior. New York: Harper and Brothers, 1948. pp 426.

46. Sperry, M. E., "A Comparison of Typical Cases and Evaluation of Treatment of Problem Children with Reading Disability," Smith College Studies in Social Work, 6:289-290, 1936.

47. Strachey, V., "Some Unconscious Factors in Reading," International Journal of Psychoanalysis, 9:82-108, 1930.

48. Strong, Ruth, Constance McCullough, and Arthur Traxler, Problems in the Improvement of Reading. New York: McGraw-Hill Book Company, 1955. pp 426.

49. Stroud, James B., Psychology in Education. New York: Longmans, Green and Company, 1946. pp 664.

50. Tomkins, Silvan, The Thematic Apperception Test. New York: Grune and Shatton, 1947. pp 297.

51. Traxler, Arthur E., "Ten Years of Research in Reading," Educational Research Bulletin, 32, July, 1941.

52. Vorhaus, Pauline, A Manual on the Use of Selected Psychological Tests in Certain Aspects of the Diagnosis of Reading Problems. New York: Columbia University Press, 1950. pp 324.

53. Wyrocki, H. J., "A Case of Number Phobia," International Journal of Psychoanalysis, 21:226-234. 1938.

APPENDIX

APPENDIX A

JUDGE'S RATING SCALE FOR SELF-CONCEPT

The Judge's Rating Scale that was employed in the validating study was the typical rating scale consisting of five categories. This rating scale is reproduced below.

JUDGE'S RATING SCALE FOR SELF-CONCEPT

1	2	3	4	5
Immature Self-Concept				Mature Self-Concept

The middle three categories were not labled. The extreme categories were labled only to assure that a high score represented mature self-concept. The five components of self-concept as defined for this study were rated on the above scale resulting five ratings for each subject.

APPENDIX B

INSTRUCTIONS FOR THE ADMINISTRATION OF THE SCS-DAP

The usual precautions of adequate ventilation, light, materials, rest, et cetera that are taken before the administration of any test were assured prior to the administration of the SCS-DAP. The teacher was purposely not instructed as to the nature of the research so as to not bias the group in any way, being merely informed by the school administrator that her pupils would be employed at a certain hour as subjects for research.

The subjects were supplied with one sheet of $8\frac{1}{2}$ by 11 inch white paper and pencils. They were requested to print their name, grade, and school on this paper and then turn the paper over so that they might have a completely free side of paper for their drawing. The following instructions were then read:

> I am interested in finding out some things about children and their drawings. I would like you to draw a picture of a person for me. Please draw all of the person. If you like, you may erase. Be sure to draw all of the person.

The subjects were allowed to draw for as long as they wished but usually fifteen minutes was sufficient. Occasionally a subject would ask questions regarding clarification or direction. Most of the time these questions could be answered

by repeating all or part of the instructions. An occasional question could not be satisfactorily answered in this fashion and extreme caution was exercised so that the answer in no way effected the drawing that was subsequently produced.

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