An Investigation to Determine the Relationships Among Self-Concept, Locus of Control, and Reading Achievement

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AN INVESTIGATION TO DETERMINE THE RELATIONSHIPS
AMONG SELF-CONCEPT, LOCUS OF CONTROL,
AND READING ACHIEVEMENT

THESIS

Submitted to the Graduate Committee of the
Department of Curriculum and Instruction
Faculty of Education
State University College at Brockport
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Requirements for the Degree of
Master of Science in Education

by
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Abstract

The purpose of this study was to investigate the relationships among self-concept, locus of control, and reading achievement. One hundred thirty-eight fourth grade students from one school in a predominantly middle-class school district took part in the investigation. The Piers-Harris Children's Self Concept Scale and the Nowicki Strickland Locus of Control Scale for Children were used to assess self-concept and locus of control. Both the Primary II battery and the Intermediate battery of The Metropolitan Achievement Tests were used to measure reading achievement. Data obtained from these measuring devices were computer analyzed to determine correlation coefficients among the variables. Significant relationships were found between self-concept and internal locus of control, between internal locus of control and reading achievement, and between self-concept and reading achievement. All relationships were statistically significant at the .01 level of confidence. Coefficients of determination were also computed. Based on the results of this investigation, classroom teachers should be cognizant of the effect(s) that self-concept and locus of control have on reading achievement. Further research could be conducted to determine causality between the independently related variables, to examine the relationships among the variables as a function of age, and to investigate the differences between males and females relative to the variable(s) being tested.
Measuring devices other than the ones employed in this study might be used. It was concluded from this research that significant relationships exist among self-concept, locus of control, and reading achievement.
Table of Contents

List of Tables ........................................ iii

Chapter

I. Statement of the Problem .............................. 1
   Purpose ............................................. 1
   Need for the Study .................................... 1
   Definition of Terms ................................... 4
   Limitations of the Study ............................. 5
   Summary ............................................. 5

II. Review of the Literature .............................. 6
   Purpose ............................................. 6
   Introduction ......................................... 6
   Self-Concept ......................................... 7
   Locus of Control ...................................... 18
   Self-Concept and Locus of Control .................. 26
   Conclusion ........................................... 27

III. The Research Design ................................. 29
   Purpose ............................................. 29
   Methodology .......................................... 29
   Summary ............................................. 32

IV. Analysis of the Data ................................ 33
   Purpose ............................................. 33
   Findings and Interpretations ......................... 33
   Summary ............................................. 35

V. Conclusions and Implications ........................ 37
   Purpose ............................................. 37
   Conclusions .......................................... 37
   Implications for Classroom Practice ................ 37
   Implications for Further Research ................... 38
   Summary ............................................. 39

References ............................................. 40
List of Tables

Table

1. Correlation Coefficients Determined Among Self Concept, Locus of Control, and Reading Achievement ........................................... 34
Chapter 1

Statement of the Problem

Purpose

The purpose of this study was to investigate the relationships among self-concept, locus of control, and reading achievement. Scores on one self-concept measure and one locus of control measure were independently compared with a total reading achievement score. The following questions were examined:

1. Is there a significant relationship between self-concept and locus of control?
2. Is there a significant relationship between locus of control and reading achievement?
3. Is there a significant relationship between self-concept and reading achievement?

Need for the Study

Reading is a complex process. Over the centuries great human effort has been expended on developing methods by which reading could be most effectively taught. Two areas which have come under close scrutiny as important factors in reading achievement are the effect of a child's self-concept and the effect of a child's locus of control orientation.

The interest in the area of self-concept since the early 1960's is due in part to the fact that reading, because of its importance
in society, assumes great value as a developmental task, and failure to master it may interfere with the development of a child's self-esteem (Sebeson, 1970). Quandt (1972) found several indications that subjects whose reading self-concepts were negative were experiencing fewer successes in reading. Further investigation (Quandt, 1973) revealed that (1) studies that have correlated levels of reading achievement with levels of self-concept indicate that a positive association exists between the two; (2) studies of comparison have found significant differences in self-concept scores between high achieving and low achieving readers with the former receiving higher self-concept scores; and (3) some validity has been found for using self-concept as a predictor of reading success. One study (Pine, 1976) concluded that while no significant relationship exists between pre-self-concept and reading achievement and between post-self-concept and reading achievement, there is a strong effect of both pre-self-concept and post-self-concept on reading achievement. Williamson (1973) stated that "of all the areas of personality correlated with reading achievement, one factor, self-concept, seems to be particularly useful for the reading teacher" (p. 229). While a number of studies (Lewis, 1974; Williams, 1973) have shown no significant relationship between self-concept and reading achievement, most of the evidence supports the contention that a strong relationship does exist.

Another area which has received attention as a factor in reading achievement is locus of control orientation. Locus of control research with children has often focused upon academic achievement, as it is a behavior consistently found to be related to locus of
control (Nowicki and Strickland, 1973). Internal locus of control is associated with greater academic achievement than external orientation. Finch, Pezzuti, and Nelson (1975) state that "those emotionally disturbed children who perceive a relationship between their own behavior and the resulting consequences obtain higher achievement scores than those who do not" (p. 103). In two related studies (Crandall, Katkovsky, and Crandall, 1965; McGhee and Crandall, 1968), subjects with more highly internal locus of control scores consistently attained higher academic performance scores. When internal control was subdivided into I+ (internal responsibility for successes) and I- (internal responsibility for failures), Messer (1972) found that responsibility for failures was a better predictor of academic performance for girls and responsibility for successes was a better predictor of academic performance for boys. Barnett and Kaiser (1977) reported that both boys and girls tend to take greater responsibility for successes than failures. They concluded that "the extent to which a child assumes responsibility for intellectual-academic failures relative to successes may be particularly important in achievement situations" (p. 15). McWilliams and McWilliams (1976) state that "the acquisition of particular learning skills such as reading abilities is likely to increase the student's perceived ability to control the forces which affect his life." They further conclude that "there is sufficient evidence to warrant spending more effort in designing and modifying teaching strategies that will ultimately lead students to perceptions of being in control of the successes and failures they experience" (p. 178).
Little attention has been devoted to the interrelationships of self-concept and locus of control and reading and/or academic achievement. Fitch (1970) reported that self-esteem enhancement influences subjects to attribute success outcomes to internal sources to a greater extent than failure outcomes. However, when subjects with low self-esteem met with failure, they were more likely to blame themselves. The relative independent contributions of self-concept and locus of control to academic achievement were investigated by Gordon (1977). In this study an internal locus of control orientation was significantly related to greater academic achievement and high self-esteem. Further research is needed to investigate the relative independent contributions of self-concept and locus of control to reading achievement.

**Definition of Terms**

Terms important to this study are defined as follows:

- **Locus of control orientation** - the degree to which individuals perceive that their positive and negative reinforcements are contingent upon their own behavior (Lefcourt, 1966).

- **Internal locus of control** - the perception of positive and/or negative events as being a consequence of one's own actions and thereby under personal control (Lefcourt, 1966).

- **External locus of control** - the perception of positive and/or negative events as being unrelated to one's own behavior in certain situations and therefore beyond personal control (Lefcourt, 1966).
**Self-concept** - a person's total appraisal of his appearance, background and origins, abilities and resources, attitudes and feelings, which culminate as a directing force in behavior (Lebenne and Greene, 1969).

**Limitations of the Study**

This study was limited to fourth grade students from one school in a predominantly middle-income suburban school district.

**Summary**

Research supports the contention that a strong relationship exists between self-concept and reading achievement, and between locus of control and reading achievement. Research is needed to investigate the relative independent contributions of self-concept and locus of control to reading achievement. This study examined the relationships among self-concept, locus of control, and reading achievement. The sample for this investigation consisted of fourth grade students from one school in a predominantly middle-income school district.
Chapter II

Review of the Literature

Purpose

The relationships among self-concept, locus of control, and reading achievement were investigated in this study. The specific relationships examined were the relationship between self-concept and locus of control, the relationship between locus of control and reading achievement, and the relationship between self-concept and reading achievement. The results of an exploration of the literature relating to these areas are presented.

Introduction

The importance of reading in our modern schools is indicated by the amount of research that has been devoted to it. Since 1881, there have been over five thousand scientific studies relating to reading published in the United States and England alone (Gibson & Hall, 1969). As a result of much of this work, researchers have investigated the components of the reading process. One area which has received attention is the effect of emotional factors on reading achievement. Since the achievement of reading proficiency is part of one's total development, personality factors naturally enter into every reading situation (Ephron, 1953). Two specific personality factors which have been the focus of research investigations are
self-concept and locus of control orientation. A large body of evidence has been compiled relating these two factors to reading achievement. Because of their critical impact on reading, it is advisable to take a closer look at what constitutes these two emotional factors, and why they are so important to concerned educators.

**Self-Concept**

As it is generally used in the professional literature, self-concept is a group of feelings and cognitive processes which are inferred from observed or manifest behavior. By way of a formal definition, self-concept is:

> the person's total appraisal of his appearance, background and origins, abilities and resources, attitudes and feelings, which culminate as a directing force in behavior . . . A person's conscious awareness, what he thinks and feels, is that which primarily guides, controls, and regulates his performance and actions. (Labenne & Green, 1969, p. 10)

Of all the perceptions that an individual has of himself, the ones especially emphasized are the individual's perceptions of his value and his ability.

The self-concept is important because it determines an individual's actions in various situations. According to Felkner (1974), the role of the self-concept is threefold: the self-concept operates as a mechanism for maintaining inner consistency—for bringing actions and happiness into harmony with the self-view; the self-concept determines how experiences are interpreted—in ways which are consistent with individual views; and, the self-concept provides a set of expectancies which operate to determine how the individual is going
to act. Each of these three factors is a powerful determiner of behavior.

**Acquisition**

Individuals are not born with a ready-made self-concept. A theoretical analysis of the concept of self shows it to be a learned structure, growing mainly from comments made by other people and from inferences drawn by children out of their experiences in home, school, and other social groups (Staines, 1965). Because it exists in a social world, the self-concept can logically be expected to be a self-social product. Indeed, the self-concept can be thought of as a social phenomenon growing within a larger framework of comparative inter-personal relationships. That is, one's self is nurtured not only by what one would ideally like to be, but also by how one views himself as actually performing in relation to other people. Thus, there are two aspects affecting the self, concept and feeling. We know ourselves to have certain qualities, and we have certain feelings about those qualities. Our feelings about our personal qualities are derived from our assessment of where we think we stand in relation to others whom we like and who like us (Adams, 1976).

Comparison of one's self with others is an important and on-going process that continues throughout life. Since every human is vitally influenced by those around him, the people who are important to him influence what he thinks of himself. In the first years of a child's life, the parents of a child are the most
significant influence on the development of his self-concept. This happens in at least three important ways: first, the parents serve as the primary models for the developing behavior of the child; second, the parents serve as the primary feedback agents so that the child can know how his behavior is influencing others; and third, the parents serve as the primary evaluator of the behavior of the child. The model that the parents present in their treatment of the child teaches the child how he should treat himself (Felkner, 1974).

During the pre-school period, the child begins to judge his self-worth partly on the basis of his competence with peers, and his competence with adults. The child who has not developed a sense of belonging and the security that accompanies such a sense is likely to be hindered in moving out into the wider world. Security provides the basis for the confidence that the child needs in order to meet the world without excessive fear. Once he steps out into the wider world, the competence which he develops will tend to enhance the beginnings of positive self-esteem. The fearfulness and lack of confidence which prevent some children from developing competence will reinforce the beginnings of a negative self-concept (Felkner, 1974).

The Academic Situation

One of the major tasks in self-concept development is the acquisition of a system for dealing with incompetencies and failures. The system for dealing with failure or the development of such a
system takes on prime importance when the child goes to school. For this reason, the roles of the school in self-concept development and of the teacher as the main agent of the school are crucial. There is some evidence, however, that the schools do not meet the problem of enhancing self-concept. Felkner (1974) states that "as a group, elementary school students have difficulty maintaining positive self-concepts after they enter the school situation" (p. 63). The results of several investigations concur with this statement. Trafton (1978) reported a trend toward declining test scores from grades three through eight in all areas of self-concept. Black (1974) noticed that older children exhibited a more negative view of themselves than younger children. In a study involving over six hundred students in grades three through eleven, Morse (1964) found that "as a young child grows older, confidence diminishes and school-regard decreases" (p. 197). He concluded that:

while the number of negative responses in both the self-picture and the school self-esteem is unpleasant to contemplate, the school self appears to grow gradually less positive with time. Whatever else we have done, we have communicated a sense of personal failure to many of our pupils. In general, the longer we have them the less favorable things seem to be. (p. 198)

One reason for this inability to maintain positive self-concepts may be that much more frequently than teachers believe, the ordinary run-of-the-day comments on success and failure, and incidents where a child is casually preferred to another for what seems to the teacher an unimportant task or role, may be fraught with status possibilities and intense emotional content (Staines, 1965). Further,
the role of school is not only incidental but direct. It dispenses praise and reproof, acceptance and rejection, on a colossal scale. What is more important, the failures, reminders of limitations, and the rejection which children face at school are often artificial and forced. They may have the effect of humiliating the child by depreciating his worth. (Jersild, 1952, p. 90)

In one survey (Jersild, 1952), students revealed that all grade levels except fourth grade and upper college, a larger percentage of young people mentioned school and their relationships and performance there when describing what they disliked about themselves than they did when describing what they liked about themselves.

The influence of the teacher, while in most cases is likely to be less powerful than the influence of the parent, can still be strong. Davidson and Lang (1960) discovered that when children's perceptions of their teachers' feelings toward them were positive, their academic achievement improved. Because the process of self-development continues as long as a person lives, the teacher is in a strategic position to influence this development. This is especially true at the earlier grade levels where the teacher acts as a parent-substitute, and where the child is just beginning formal reading instruction.

Reading

Learning to read develops from learning to use and understand language. An emphasis on language acquisition has been shown to be an important aspect in self-concept formation. Because verbal abilities are related to self-concept, freedom of expression leads to self-confidence. The dramatic influence of words and word-related
activities on self-concept explains why a continuing emphasis on using language helps to maintain a positive self-concept (Dixon, 1976; Felkner, 1974). How a child feels about himself and his relations with others will determine to a great extent what he is able to say, write, and read. This effect is pointed out by Dixon (1976) in a study that found self-concept related to reading comprehension and verbal abilities.

Reading has been found to be a vital factor in relationship to self-concept. Green and Way (1975) suggest that when reading is viewed as an existential act, it can be argued that as a child grows, he sees the world as an extension of himself. When he begins to read, the act of reading is also a part of himself, claiming materials, attitudes, knowledge, understanding and values that already belong to him. It is part of himself as yet undisclosed. Viewed in this light, reading can be seen as an act of claiming the self. Thus self-concept acts as a mechanism by which to measure one's reactions to the surrounding environment.

Schools perpetuate the problems of self-concept development as it relates to the reading process in many ways. One of the most familiar is grouping. According to Labenche and Greene (1969), "when children are grouped according to ability, there is a tendency to establish and reinforce the individual's concept of his ability in the particular area, and to perpetuate it from that time" (p. 55). It has been consistently found that the lower the group, the more negative the feelings of self-concept on the part of the children. Further, enough evidence has been gathered to establish the fact that
reading ability differences cannot be completely disguised from children. When groups are formed on the basis of reading ability, children are aware of the status of their group (Gibson & Hall, 1969). It is this knowledge of group status that can show a child that he does not read as well as his classmates, and convince him that he will probably never do much better.

Early reading experiences can often be dramatically influenced by the child's self-concept. Quandt (1973) reasons this way:

It is possible that low self-concepts which lead to reading disabilities are caused either by the child's evaluation of his failure to learn during his initial attempts or by the reactions of parents, peers, and teachers prior to or during his attempts to learn reading. (p. 8)

Not only does poor self-concept interfere with learning to read, but the resulting reading disability leads to an even poorer self-concept. This spiral effect can produce a child with a damaged self-concept who is unable to read, and who sees himself as a failure. Once this pattern of failure is established, especially in the first grade, it can plague children throughout their lives.

The relationship of self-concept to beginning reading achievement has been investigated by a number of researchers. Ozehosky and Clark (1970) reported that teacher judgements of self-concept were predictive of kindergarten achievement. Wattenberg and Clifford (1964) found that measures of self-concept and ego strength in kindergarten students were predictive of reading achievement two and one-half years later. This is consistent with the conclusion reached by Quandt (1973) that there is evidence that self-concept levels can be used as predictors of later reading achievement. Self-concept was not found
to be a predictor of first or second grade reading achievement in a study conducted by Williams (1973).

Many researchers have found positive correlations between self-concept and reading achievement. In a study conducted by Lumpkin (1959), fifth grade overachievers revealed a significantly more positive self-concept and higher levels of adjustment, and saw themselves as liking reading. Underachievers manifested a predominantly negative perception of self, a desire to be different from the self as seen, and to a statistically significant extent, they expressed feelings of conflict more often.

Bodwin (1959) reported a positive and very significant relationship between immature self-concept and reading disability in third and sixth grade students. In two related investigations (Mangeri, 1974; Mangeri & Olsen, 1974), it was concluded that there is a significant relationship between self-concept and reading achievement. The results of an investigation by Bailey (1971) support the notion that there are differences in self-perception between achieving and underachieving students. "These results strongly suggest that a student's self-perception of his academic ability plays a crucial role in his academic performance" (p. 190).

In a study with third, sixth, and eleventh grade students, Bruck (1959) found a positive and significant relationship between self-concept and grade point average on all grade levels. Self-concept and achievement motivation influenced the achievement of average third graders in a study by Cole (1974). It was concluded that factors other than aptitude interact with actual achievement.
Hatcher (1974) suggests that under a multidimensional view of human abilities, divergent thinking abilities and self-concept add significantly to the relationship between intelligence and reading achievement. Adrian (1978) also investigated the relationship between self-concept and thinking abilities. She points out that there are positive relationships among reading achievement, science and math achievement, operative reading comprehension, and general self-concept of ability. She explains operative comprehension as the ability to construct, transform or organize the content into a concept. She concluded that:

educators who wish to improve scholastic achievements in math and science should be mindful of a student's level of operative comprehension of reading and his self-concept of ability. The more positive an individual's self-concept of ability, the more he is likely to attempt to construct content concepts. (p. 764-A)

Nichols (1978) reported no significant correlation between academic achievement and self-report self-concept measured by the Piers-Harris Children's Self Concept Scale. However, when self-concept was inferred by content area teachers, positive and very significant correlations with academic achievement were noted. Significant correlations between self-concept and grade point average were reported by Brookover, Thomas, and Paterson (1964). They found that specific self-concepts of ability are related to specific areas of academic role performance, which differ from the general self-concept of ability. Others who have reported significant relationships between self-concept and reading achievement include Clark (1977), Clayton (1979), Fink (1962), and Henein (1978).
A number of studies have reported no significant relationships or ambiguous relationships between self-concept and reading or academic achievement. The findings of Marx and Winnie (1975) contradict most of the previous findings. In their study with black students, those who scored well on the achievement measure tended to score poorly on the self-concept scale. They reasoned that students are able to differentiate the academic and social facets of self-concept.

Children who are visibly successful at school (insofar as standardized tests are indices of 'success') may be rejected by peers, resulting in low social self-concept. Children regarded highly by peers may reject successes in school as means for enhancing self-esteem, whereas children who are rejected socially may try to enhance self-esteem through high academic achievement. (p. 31)

Clark (1977) states that there is no relationship between self-concept and school achievement in fifth grade migrant students in Mississippi; and school achievement cannot be predicted by examining self-concept. Further research (Busby, Fillmer, & Smittle, 1974) concludes that the relationship of self-concept to reading disabilities is not clearly supported.

As stated by Kokovich and Matthews (1971), "it is sometimes difficult to evaluate the effect of self-image on learning, but a student with a poor self-image often experiences academic difficulties, especially in the area of reading" (p. 53). This is especially true when teachers place a major emphasis on achievement and skill development. School practices that treat reading achievement as the measure of success may be destroying self-image at a rate that exceeds skill development. The emphasis given to reading skills, sequence and
objectives has forced self-concept into the background. Greater emphasis has been placed on the "process or methodology" than on the "product" of reading (Homze, 1962, p. 210). Berretta (1970) states that "self-concept is as much a factor in reading success as intelligence or mastery of basic skills" (p. 237). However, the indications that a positive self-concept contributes positively to a child's reading ability have largely been ignored by America's curriculum developers and teachers (Quandt, 1973). As Williams and Cole (1968) point out:

While most school systems ubiquitously administer intelligence and achievement tests, very few attempt to provide valid reliable measurements of self-concept. Such may be a function of the lack of reputable, standardized measuring instruments of self-concept for all age levels, or the lack of information on the part of administrators and teachers concerning the possible importance of self-concept to academic adjustment and success. It should be the business of the school to identify children with derogatory self-esteem, to determine the factors that have and are contributing to the low self-appraisal, and to embark on a judicious program of amelioration.

Few factors are more fundamental to a child's success and happiness than his evaluation and acceptance of himself. (p. 480)

The self-concept is a filtering and coloring mechanism in human experience. If it is negative, everything which is seen in the world takes on a negative hue. If it is positive, it provides a positive basis for seeing things in the world in a positive way. This aspect of self-concept makes the development of a positive self-concept one of the crucial developmental goals for children. Therefore, building self-concept and helping the students understand and accept their own strengths and limitations should be a major educational objective. "To teach reading effectively, we must teach students to
like themselves" (Williamsen, 1973, p. 233). Ego-building and guiding children to discover the relationship between their speech and the alphabet takes precedence over speed. The classroom teacher has the important responsibility of establishing an atmosphere conducive to enhancing a favorable self-image. Staines (1965) concludes that "because the self is an ubiquitous factor in all learning experiences, its presence should be recognized and its importance stressed by all teachers, and controlled development made a major teaching aim" (p. 422).

**Locus of Control**

Like self-concept, locus of control is a learned structure. The concept of locus of control emerged from the social learning theory. The social learning theory is one theory by which an attempt can be made to understand human social behavior and the sometimes bewildering array of conditions that affect it. Its presumption is that human behavior is complexly determined by several variables, including reinforcement value (or need), the psychological situation, and expectancies. Expectancies are regarded by social learning theorists as prime determinants of behavior. That is, "behavior is determined by the degree to which people expect that their behavior will lead to goals, as well as by reinforcement through goal achievement" (Phares, 1976, p. 13).

**Origin**

The initial impetus to study internal-external control came from an interest in individual differences and from an interest in
explaining the way human beings learn complex social situations.

"One of the most pervasive laws of animal learning is that behavior followed by a reward tends to be repeated, and a behavior followed by a punishment tends not to be repeated" (Rotter, 1971, p. 37). However, with human beings who have begun to form concepts, the important factors in learning seem to be not only the strength and frequency of rewards and punishments, but also whether or not the person believes his behavior produced the reward or punishment.

According to the social learning theory, rewarding a behavior strengthens an expectancy that the behavior will produce future rewards. In animals, the expectation of reward is primarily a function of the strength and frequency of rewards. In human beings, there are other things that can influence the expectations of reward--the information others provide, knowledge generalized from a variety of experiences, and perceptions of causality in a situation.

There are a number of attitudes that would lead a person to feel that a reward was not contingent upon his own behavior.

A person might feel that luck or chance controlled what happened to him. He might feel that fate had preordained what would happen to him. He might feel that powerful others controlled what happened to him or he might feel that he simply could not predict the effects of this behavior because the world was too complex and confusing. (Rotter, 1971, p. 42)

Part of the ideal definition that succinctly describes the internal-external variable is as follows:

When a reinforcement is perceived by the subject as following some action of his own but not being entirely contingent upon his action, then, in our culture, it is typically perceived as the result of luck, chance, fate, as under the control of powerful others, or as unpredictable because of
the great complexity of the forces surrounding him. . . . we have labeled this a belief in external control. If the person perceives that the event is contingent upon his own behavior or his own relatively permanent characteristics, we have termed this a belief in internal control. (Rotter, 1966, p. 1)

**Early Investigations**

Much of the early work with locus of control focused on developing a measuring device that would sort out, with some certainty, those people who have differing beliefs about their overall ability to exert an influence on their world. Phares (1956) made the first crude efforts to develop a scale to measure such individual differences. The instrument he used consisted of thirteen skill items and thirteen chance items presented in a Likert scale format. His investigations focused on differences between chance learning and skill learning. James (1957) followed up this early work by improving and revising Phares' scale. These efforts were followed by more systematic and extensive scale development by Liverant, Rotter, and Seeman (Phares, 1974). A final twenty-nine item version of the I-E (internal-external) scale was later published in *Psychological Monographs* (Rotter, 1966). This scale was used in the vast majority of research (Throop & MacDonald, 1971; Joe, 1971) with high-school or college students or with adults.

Because "school is the business of childhood" (Phares, 1976, p. 107), the major realm in which locus of control has been studied with children is academic achievement. The Intellectual Achievement Responsibility Questionnaire (IAR), developed by Crandall, Katkovsky, and Crandall (1965), has been an important tool in studying the
relationship between grades and locus of control in children. The IAR assesses children's beliefs in their own control of reinforcements in intellectual academic achievement situations. The scale yields scores for perceived self-responsibility for success events (I+) and for failure events (I-). Crandall, Katkovsky, and Crandall (1965) found both report card grades and scores on the Iowa Test of Basic Skills to be positively related to total internal (I) scores for third, fourth, and fifth grade children. However, I+ scores predicted grades for girls in the third and fourth grades, while I- predicted scores for boys in the fifth grade. Earlier, Crandall, Katkovsky, and Preston (1962) had found that total I scores (subscales were not used) were highly associated with the amount of time boys chose to spend in intellectual activities during free time play and the intensity of their striving in these activities. No such relationship was found for girls.

McGhee and Crandall (1968) reported that internals on the IAR achieve higher school grades than do external subjects. Again, I- predicted differently for boys. In a study using the IAR with fourth-grade girls and boys (Messer, 1972), internals achieved higher school grades. However, in contrast to the work by Crandall et al. (1965), there was a tendency for I- to predict better for girls and I+ to predict for boys. This study also noted as have others, that IAR is a better predictor of school grades than of standardized measures of school achievement. Messer (1972) suggests that perhaps in giving grades, teachers are more likely to reflect subjective judgements about work, efforts, or attitude, aspects in which an
internal is likely to excel. The results of a study by Barnett and Kaiser (1977) show that both boys and girls tend to take greater responsibility for successes than failures.

In another study (Morris & Messer, 1978), one hundred fifty-three fourth and fifth grade boys selected on the IAR as having either an internal or external locus of control in academic tasks were assigned to self-reinforcement or external reinforcement conditions. External reinforcement led to greater task output than self-reinforcement. However, when locus of control was defined by use of both IAR subscales (I+ and I-) rather than by total score, externals performed best under conditions of external reinforcement, as predicted, while internals performed equally well under both conditions. Clifford and Cleary (1972) studied ninety-nine grade school children and noted that vocabulary, spelling, and mathematics were all related to scores on a test similar to the IAR. Other studies that have demonstrated direct relationships between the IAR and achievement behaviors such as grades and achievement-test scores include Brown (1977) and Vogel (1977).

A variety of other scales have further demonstrated significant relationships between locus of control and academic achievement in studies with children. The Nowicki-Strickland Locus of Control Scale for Children has been found to be significantly related to achievement in males but not females (Nowicki & Strickland, 1973). Pressman (1978) found that locus of control influences reading scores. She concluded that locus of control accounted for more of the variable than did socioeconomic status even when intelligence was a factor. In a study
by Finch (1975), locus of control was significantly correlated with achievement and chronological age, with higher correlations between chronological age for girls than for boys.

Chronological age was also a factor in a study of locus of control and achievement in middle and lower-class children (Bartel, 1971). In this study, scores between lower and middle-class children were not significant at first and second grade levels, but were significant at the .05 level in the fourth grade and at the .01 level in the sixth grade. Correlations of scores from the Bialer Children's Locus of Control Scale and two achievement measures were generally positive for both lower and middle-class children, with a consistently greater magnitude of the correlation for the middle-class children. Varanese (1973) also found a significant relationship between locus of control and reading achievement using the Bialer scale. Using Rotter's I-E scale, Johnson (1977) reported a significant relationship between achievement gains and locus of control scores for two hundred and one sixth grade students.

Studies with older students have produced a variety of results. Using Rotter's I-E Scale, Drummond (1975) found that the mean score of the external group was significantly higher than the external group on both the McGraw-Hill Reading Test and the Nelson-Denny Reading Test for male college freshmen. Scores on the I-E Scale accounted for a significant amount of the variance in grade point averages and grades in individual courses. In a study by Nord, Connelly, and Daignault (1974), personal control was a better predictor of achievement than ideological control. They concluded
that while locus of control might be a useful predictor of academic success, no simple pattern exists. Course content and such factors as teacher behavior may interact with perceived locus of control to determine academic achievement. Hjelle (1970) reported marginal support for his prediction that internals would manifest more achievement striving behavior than externals.

Massari and Rosenblum (1972) used both the I-E Scale and the IAR with one hundred thirty-three college students. No significant correlation was found between the I-E or the IAR and performance with males. Significant negative correlations were reported for women. That is, external scores were related to better performance. Since these findings conflict with others, it appears that the relationship between expectancies of locus of control and academic achievement is rather complex.

The I-E Scale and Levenson's I.P. & C. Scales (Internal, Powerful Others, Chance) were used by Culver and Morgan (1977). No significant relationship was found between the I-E Scale and any scores on the Nelson-Denny Reading Test. However, correlations with the IPC Scales revealed a significant positive relationship between internal control and reading comprehension, and a significant negative relationship between chance control and total reading. It was concluded that it is important to make a distinction between the two different aspects of external control (powerful others and chance). Differences between powerful others and chance were also reported by Prociuk and Breen (1974). In this study internal control was positively related to college academic success, while the opposite
was true for powerful others and chance. There were significant differences between powerful others and chance control as related to study habits and attitudes and to college grade point averages. Gadzellel and others (1976) found powerful others and chance control differentially related to study habits and attitudes, and to semester grade point averages. Studies which reported no significant relationship between internality and reading achievement include Blake (1977), Brandt (1975), and May (1978).

**Instructional Environment**

Research has provided evidence of a relationship between locus of control and the instructional environment. Using a one-to-one tutorial reading treatment in various skill areas, McWilliams (1976) found that twenty forty-five minute remedial reading sessions could bring about an increase in internal perceptions of locus of control. In a further evaluation of these results, McWilliams and McWilliams (1976) state that:

- the acquisition of particular learning skills such as reading abilities is likely to increase the student's perceived ability to control the forces which affect his life. Moreover, the impartation of these skills takes place more effectively in individualized situations than in a one-to-many learning environment. (p. 178)

To determine whether the open classroom environment produces a higher degree of internal locus of control than the traditional classroom, Stone (1974) assigned seven hundred seventh grade students to either open or traditional classrooms. Pre- and post-test measures of the Nowicki-Strickland Locus of Control Scale were used and confirmed a higher degree of internal locus of control in the
Significant learning often does depend upon a modification of educational strategy. Therefore, if the I/E control of a student contributes significantly to the success or failure of his performance in an individualized reading course, then decisions about instructional methods and teacher behavior should be made on the basis of this type of information as well as on the basis of scholastic information. (p. 37)

It is the contention of Culver and Morgan (1977) that locus of control should be considered an important factor in the refinement of instructional methods.

Acceptance of personal responsibility is the key to the theory of locus of control. High internal persons exhibit greater ego strength and a greater sense of control over situations than do high external persons. The internal person may, in effect, control his/her own reinforcements, while the external person perceives that his/hers are controlled by other factors (Morgan & Culver, 1978). Throughout two decades of research, investigators have found internally controlled individuals to be more cognitively active in search and learning activities (Lefcourt, 1966). Although more research needs to be done in this area, studies support the notion that internally controlled students make the greatest gains in reading achievement.

Self-Concept and Locus of Control

Significant relationships between locus of control and self-concept have been reported. Researchers (Joe, 1971; Rotter, 1966) have identified internal persons as exhibiting greater self-confidence and stronger feelings of self-worth. One study (DeANDA, 1977) found

open classroom that crossed levels of academic achievement.

Drummond, Smith, and Pinette (1975) concluded the following:

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that self-esteem could be significantly predicted by locus of control and social status through interaction with achievement and locus of control. The two factors that accounted for a significant amount of children's self-esteem in the classroom were the ability to assume responsibility or take credit for success and failure, and having favorable social status with peers. A study by Salazar (1977) reported significant differences on self-concept and school morale group mean scores between internal and external students. A significant relationship between high self-esteem and internal locus of control was the finding of Fish and Karabenick (1971). An internal locus of control was significantly related to greater academic achievement and high self-esteem in a study conducted by Gordon (1977). Wirth (1977) states that:

students who exhibit high levels of performance tend to view themselves as adequate, capable persons; conversely, students who experience difficulty in achieving academically often see themselves as inadequate and incapable of achievement. (p. 33)

Conclusion

Such stress has been laid on the importance of reading both at home and in the community that most children regard it as a status subject (Jackson, 1972). As Morgan and Culver (1978) explain, these findings have implications for the teacher of reading. Teaching strategies must be devised in the affective area that are cognitively manipulative in nature in order to reinforce internally controlled behavior and lead students to believe they themselves have much influence over their own learning environment. (p. 405)

If pupils are to continue to read for intellectual and affective becoming after passing through educational institutions, "it is
necessary that they associate pleasurable feelings about themselves with the act of reading" (Henderson, 1977, p. 326). Henderson (1977) further points out that:

reading while becoming is a continuous state. Life is dynamic; to live is to be in motion. Acknowledged success in acceptance, competence, power, and virtue contributes to a child's sense of efficacy and enhances his motivation to continue to read and learn . . . If they have developed a highly positive self-regard in the process, we can be assured that they will be prepared to influence others and cope with change. (p. 326)

As Greer (1972) notes:

The classroom reading program can become a major source of growth along the affective continuum. The content of reading materials provides the affective substance; the use of the content determines whether or not it serves affective goals. The reading teacher who structures reading content to provide a broader program of affective experiences . . . makes possible the achievement of a major educational objective--the full development of affective potential for all children. (p. 341)
Chapter III

The Research Design

Purpose

The relationships among self-concept, locus of control, and reading achievement were examined in this study. Three hypotheses were formulated:

1. There is no significant relationship between self-concept and locus of control.

2. There is no significant relationship between locus of control and reading achievement.

3. There is no significant relationship between self-concept and reading achievement.

Methodology

Subjects

The sample for this study consisted of one hundred thirty-eight fourth grade students from one school in a predominantly middle-income suburban school district in Western New York State. Seventy-seven males and sixty-one females from six separate classrooms participated in the study. This constituted ninety-three percent of the entire population of fourth grade students in this particular school. Those students who were absent on the days the scales were administered were excluded.
Instruments

The Piers-Harris Children's Self-Concept Scale was used to assess self-concept. The Piers-Harris Children's Self-Concept Scale entitled, "The Way I Feel About Myself," is an easily administered self report instrument developed in 1969 by Ellen V. Piers and Dale B. Harris. It is a quickly completed (15-20 minutes) 80-item paper-and-pencil test designed for children over a wide range (grades 3-12). The items are presented as statements which are answered either yes or no. Administered in group form, it requires approximately a third-grade reading knowledge. While the test yields a global self-concept score ranging from 1 (low) to 80 (high), individual questions reflect the following personality traits: behavior, intellectual and school status, physical appearance and attributes, anxiety, popularity, happiness and satisfaction.

The Nowicki-Strickland Locus of Control Scale for Children, developed in 1973 by Stephen Nowicki, Jr. and Bonnie R. Strickland, is a paper-and-pencil measure consisting of 40 questions that are answered either yes or no. Scores are ranked along a continuum from high internal (1) to high external (40). Test items describe reinforcement situations across interpersonal and motivational areas such as affiliation, achievement, and dependency. The scale takes 10-15 minutes to complete and can be used with grades 3-12.

The 1972 edition, Form F, of the Metropolitan Achievement Tests was used to measure reading achievement. Both the Primary II battery designed for grades 2.5-3.4, and the Elementary battery designed for grades 3.5-4.9 were administered. The Primary II battery was
administered to those students reading below grade level 3.2 as determined by the designated levels of their basal readers. The Elementary battery was administered to those students reading at or above grade level 3.2 as determined by the designated levels of their basal readers. The standard score was used for comparison, since the manual states that within a single subtest area, standard scores are directly comparable from battery to battery and from form to form. The test yields scores for word knowledge, reading, and total reading (a combination of the word knowledge score and the reading score). Word knowledge consists of 40 items on the Primary II battery and 50 items on the Elementary battery which measure the extent of pupils' reading vocabulary. The reading part consists of 44 items on the Primary II battery and 45 items on the Elementary battery which measure pupils' ability to comprehend written material. For purposes of this study, the total reading score was used.

Procedure and Statistical Analysis

The Metropolitan Achievement Tests were administered to all subjects by their regular classroom teachers during the second week in May. On two successive days during the same week, the Nowicki-Strickland Locus of Control Scale for Children and the Piers-Harris Children's Self-Concept Scale were administered by the researcher. Each test was administered to six consecutive groups of approximately twenty-five students each. The subjects were told that the examiner was taking a survey concerning attitudes and opinions of fourth grade students, and they were assured that their responses would be kept
confidential. To suggest anonymity, the subjects did not write their names on the tests. However, the tests were numerically precoded to match coding on the Metropolitan Achievement Tests. The examiner read each item aloud twice for clarity while the subjects followed along and marked yes or no. The data collected from the scores of these three measuring instruments were computer analyzed to determine correlation coefficients among the variables.

Summary

The sample for this study consisted of one hundred thirty-eight fourth grade students from one school in a predominantly middle-income school district. The Piers-Harris Children's Self-Concept Scale was used to assess self-concept. The Nowicki-Strickland Locus of Control Scale for Children was used to obtain a measure of internal-external control. Reading achievement was measured by the Metropolitan Achievement Tests. All tests were administered during the second week in May. Correlation coefficients among the three variables, self-concept, locus of control, and reading achievement, were computed.
Chapter IV

Analysis of the Data

Purpose

This study was designed to examine the relationships among self-concept, locus of control, and reading achievement. The following hypotheses were tested:

1. There is no significant relationship between self-concept and locus of control.

2. There is no significant relationship between locus of control and reading achievement.

3. There is no significant relationship between self-concept and reading achievement.

Findings and Interpretations

The data collected from the scores of the three measuring instruments were computer analyzed using the program MINITAB, which is part of the computer system at the SUNY College at Brockport, New York. The correlation coefficients obtained from this analysis are presented in Table 1.
Table 1

Correlation Coefficients Determined Among Self-Concept, Locus of Control, and Reading Achievement

<table>
<thead>
<tr>
<th></th>
<th>Locus of Control</th>
<th>Self-Concept</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-Concept</td>
<td>-0.533</td>
<td></td>
</tr>
<tr>
<td>Reading Achievement</td>
<td>-0.402</td>
<td>0.272</td>
</tr>
</tbody>
</table>

$r_{crit} = \pm 0.228 \quad p = .01$

df = 136

1. The correlation coefficient between self-concept and locus of control was -0.533.

2. The correlation coefficient between locus of control and reading achievement was -0.402.

3. The correlation coefficient between self-concept and reading achievement was 0.272.

This study found a strong negative relationship between self-concept and locus of control. Higher self-concept scores were significantly related to lower (more internal) locus of control scores. Lower self-concept scores were significantly related to higher (more external) locus of control scores. Consequently, hypothesis 1 was rejected.

A highly significant negative correlation was determined to exist between locus of control and reading achievement. Lower (more internal) locus of control scores were significantly related to higher reading achievement scores. Higher (more external) locus of control
scores were significantly related to lower reading achievement scores. Therefore, hypothesis 2 was rejected.

A somewhat weaker but statistically significant relationship was found between self-concept and reading achievement. Higher self-concept scores were significantly related to higher reading achievement scores. Lower self-concept scores were significantly related to lower reading achievement scores. Thus, hypothesis 3 was rejected.

Based on the results of a computer analysis of the data, all three hypotheses tested in this study were rejected.

Analysis of the data was extended to include the coefficient of determination (Stauffer, Abrams, & Pikulski, 1978, p. 134). The coefficient of determination is the proportion of the variance of one variable that can be determined by another variable. It is computed by squaring the derived correlation ($r^2$). An examination of the $r^2$ in this investigation revealed the following: 28 percent of the variance of the locus of control test score was accounted for by the self-concept scale; 16 percent of the variance of the reading achievement test score was accounted for by the locus of control scale; and 7 percent of the variance of the reading achievement test score was accounted for by the self-concept scale.

**Summary**

Correlation coefficients among the independent variables, self-concept, locus of control, and reading achievement were computed. This study found significant relationships between self-concept and
internal locus of control, between internal locus of control and reading achievement, and between self-concept and reading achievement. All three hypotheses were rejected.
Chapter V

Conclusions and Implications

Purpose
This study investigated the relationships among self-concept, locus of control, and reading achievement. Specifically, three questions were examined:

1. Does a significant relationship exist between self-concept and locus of control?
2. Does a significant relationship exist between locus of control and reading achievement?
3. Does a significant relationship exist between self-concept and reading achievement?

Conclusions
This study found significant relationships among the three variables tested. In this study, high reading achievement scores were significantly related to high self-concept scores and to internal locus of control scores. Low reading achievement scores were significantly related to low self-concept scores and to external locus of control scores. All relationships exceeded significance at the .01 level of confidence.

Implications for Classroom Practice
The existence of a relationship between two variables does not necessarily imply a causal connection, nor does it provide any

37
information about the direction of the causality, should it exist. However, since significant relationships were found among the three variables (self-concept, locus of control, and reading achievement), the classroom teacher should be aware that by changing any one of the three, the possibility exists that one or both of the other two might be affected. In view of the fact that 16 percent of the variance of the reading achievement test score can be accounted for by the locus of control scale, and 7 percent can be accounted for by the self-concept scale, techniques which improve the self-concept and foster more internal feelings of control may be important factors in improving reading achievement. Until causality and its direction are determined, the classroom teacher would not know how altering one variable would affect the other two.

**Implications for Further Research**

Based on the findings of this study, several recommendations for further research can be made. An investigation might be conducted to determine causality between the independently related variables. One possibility would be a treatment study designed to change one of the variables and observe the way one or both of the other two are affected. If a causal relationship is found, directionality must then be determined.

This investigation could be extended in a number of other ways. To examine the relationships among the variables as a function of age, this study could be replicated at grade levels other than fourth. Also, a comparison between grade levels would provide interesting
data. Insights into the developmental nature of the relationships among the variables might be gained from a longitudinal approach.

A replication of this study could be conducted using measuring devices other than the ones employed herein. Of special interest is the idea of using a self-concept scale designed to measure academic or reading self-concept, rather than global self-concept as measured by the scale used in this investigation. Another possibility would be to use a locus of control scale which subdivides the measure of internal control into internal control for successes and internal control for failures.

It might be worthwhile to examine the differences between males and females when the relationships among the variables are tested.

The implications for further research are numerous and varied. Many studies could be planned to explore some of the questions not included in this paper.

**Summary**

This study found that a significant relationship exists between self-concept and internal locus of control, between internal locus of control and reading achievement, and between self-concept and reading achievement. Implications for classroom practice were discussed, as well as suggestions for further research.
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