Does mainstreaming positively influence academic achievement and self-concept at the elementary level?

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DOES MAINSTREAMING POSITIVELY INFLUENCE ACADEMIC ACHIEVEMENT AND SELF-CONCEPT AT THE ELEMENTARY LEVEL?

by
Priscilla Hanzok

A Thesis
Submitted in partial fulfillment of the requirements of the Master of Arts Degree in the Graduate Division of Rowan College

Approved by
Professor

Date Approved 5/6/96
ABSTRACT

Priscilla Hanzok  

Does mainstreaming positively influence academic achievement and self-concept at the elementary level?

1996

Thesis Advisor: Dr. Margaret M. Shuff

This study was designed to determine if mainstreaming would have a positive influence on the self-concept and reading achievement of learning disabled students. Pre and post testing was given to 17 third and fourth grade special education students. The control group consisted of 7 learning disabled students who were in a self-contained classroom. The experimental group consisted of 10 learning disabled students who were mainstreamed.

A standardized achievement test was given to the students, with the pre-test and post-test given one year apart. The reading portion of the test was used for assessment. A self-concept scale was also given to each group with four months between the pre-test and the post-test. The results of this scale were further analyzed for academic self-concept.

Data, based on t-statistics, revealed a significant difference between the groups for general self-concept. There was no significant difference between the
groups for academic self-concept. For reading achievement, the results were approaching significance between the groups. Although the results cannot be labeled conclusive, they suggest serious consideration be given towards assuming that there is a positive influence of mainstreaming on the learning disabled student.
MINI-ABSTRACT

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This study was designed to determine if the mainstreaming of learning disabled children would have a positive influence on their self-concept and their reading achievement. Results showed no significant effect of mainstreaming on either reading achievement or the students’ self-concept of their academic ability; however, there was a significant difference in the effect of mainstreaming on the students’ general self-concept.
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ACKNOWLEDGMENTS

The writer wishes to express her gratitude to the generous contributors whose time and talents made this work possible.

To my loving family for their patience and understanding during my graduate studies and thesis writing.

To my husband, Bob, for believing in me and giving me support every step of the way. He is the wind beneath my wings and I will be forever grateful.

To my daughters Monique, Manon, and Marquel for their love and confidence.

To my daughter Monique for help on the computer.

To Robin for walking the road with me and helping me keep a sense of humor.

To Carole Street and Thomas Rouland for allowing the study and giving me support along the way - and to Ann Lear for the use of her class.

Especially to Dr. Midge Shuff, a mentor and friend, for being kind enough to share her unending talents, patience, and knowledge, and for having more confidence in me than I did.
Chapter One

THE PROBLEM

Introduction to the Problem

All students are unique individuals and the individual differences of these students influence their educational needs. Prior to 1975, students with learning disabilities, if they were serviced at all, were segregated from the regular education population by being placed in self-contained special education classes. Since the enactment of the Education For All Handicapped Children Act (P.L. 94-142), there have been provisions for equal access to a free and appropriate public education for all students. However, the issue of mainstreaming learning disabled children into regular education classrooms continues to be debated (e.g., Wang, Reynolds, & Walberg, 1986; Whitworth, 1991; Will, 1986; Yatvin, 1995).

Although there has been much research focusing on mainstreaming, few studies have evaluated how mainstreaming influences students' self-concept and achievement.

Self-concept has an important relationship to every facet of an individual's life. Muse (1992, p. 2) describes the relationship as: "the more enriched a person's self-concept is, the greater the chance for success to occur. Likewise,
when a person’s self-concept is less enriched, the chance for success diminishes.”

**Purpose of the Study**

If Muse is correct, we need to further examine whether mainstreaming will have a relationship to a student’s academic achievement. The idea that a student’s level of achievement might be related to the perceptions that they have of themselves was first pointed out by Prescott Lecky over 45 years ago (cited in Hamachek, 1995). Many reviews in the ensuing years have suggested that there is a relationship between a student’s academic achievement and their self-concept (e.g., Hansford & Hattie, 1982; Hamachek, 1995; Moeller, 1993).

**Research Question**

Given the importance of this issue, this study seeks to determine if there is a difference between the general self-concept, the academic self-concept, and the reading achievement of learning disabled students who are mainstreamed and those who are in a self-contained special education classroom.

**Definition of Terms**

**Learning Disabilities**
Learning disabilities is a “catchall” term referring to children who have a disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, which disorder may manifest itself in imperfect ability to listen, think, speak, read, spell, or do mathematical calculations (Kirk & Gallager, 1986).

**Mainstreaming**
Mainstreaming is used with students who have learning disabilities to refer to the practice of integrating students with disabilities socially and
Self-Concept

Self-Concept is the perception of ourselves involving our attitudes, feelings, and knowledge about our skills, abilities, appearance, and social acceptability (Byrne, 1984).

Limitations

One of the limitations of this study is the small sample size. Due to the limited number of subjects, generalizability will be reduced. Another limitation of this study is the short time span between pre-testing and post-testing. A longitudinal study could prove much more informative. A further limitation is that the results of self-concept rating scales may be confounded by the unreliability of responding. Respondents may tend to answer in a way in which they think the examiner may want the question answered.

Hypotheses

Considering these limitations, it is predicted that there will be a positive relationship between mainstreaming and both the general self-concept and the academic self-concept of the mainstreamed learning disabled student versus that of learning disabled students in a self-contained classroom. And second, it is predicted that there will be a positive relationship between mainstreaming and reading achievement of the learning disabled student who is mainstreamed versus the learning disabled student who is in a self-
contained special education classroom.
Chapter Two

REVIEW OF THE LITERATURE

The Mainstreaming Mandate

Classifying individuals has been a part of our society since the beginning of time. Over the ages, people have been classified based on social status, ethnicity, economic status, and physical appearance. Children have also been classified according to physical or educational disabilities. Muse (1992) states that people who do not fall into a category that is looked upon favorably experience a loss of self-concept.

The Education for All Handicapped Children Act, also known as Public Law 94-142 (P.L.94-142), required every state to provide free appropriate public education for all handicapped children between the ages of three and eighteen (Kirk & Gallagher, 1986). As Coleman (1983) stated, children that were labeled as handicapped by the legal mandate of P.L. 94-142 were required to be provided special education assistance. Labeling of children for educational purposes benefits children with disabilities as it allows them to receive services that they might otherwise be unable to receive. However, there are also some drawbacks to this system. As Severence and Gasstrom (1977) concluded, labeling affects the attributional judgements by others on the person that is labeled. In the data
collected, similar differences were revealed between causal attributions made to persons labeled "mentally retarded" as compared to persons not having that label.

Public Law 94-142 also states that handicapped children must be educated in the least restrictive environment (LRE). Idol (as cited in Mercer, 1991, p.8), states that "LRE roughly means selecting the most normal educational setting in which a special educational student can profit from learning opportunities that afford maximum amount of progress in the least amount of time." It is felt that when students who have disabilities are placed with those who do not, there will be improved academic and social development. Also, this placement reduces the stigma that is felt by those students who are being educated in segregated settings.

Although the term mainstreaming is not mentioned in PL 94-142, its use is widespread. This term is used with students with disabilities to refer to the practice of integrating these students, academically and socially, with the population of regular education students (Mercer, 1991). The Council for Exceptional Children (CEC) (as cited in Mercer, 1991) issued a statement that describes mainstreaming:

Mainstreaming is a belief which involves an educational placement procedure and process for exceptional children, based on the conviction that each such child should be educated in the least restrictive environment in which his educational and related needs can be satisfactorily provided. This concept recognizes that exceptional children have a wide range of special educational needs, varying greatly in intensity and duration; that there is a recognized
continuum of educational settings which may, at a
given time, be appropriate for an individual child’s
needs; that to the maximum extent appropriate,
exceptional children should be educated with
nonexceptional children, and that special classes,
separate schooling or removing an exceptional child
from education with nonexceptional children should
occur when the intensity of the child’s special
education or related needs is such that they cannot be
satisfied in an environment mixed with nonexceptional
children, even with the provision of supplementary
aids or services (p.43).

Special education was developed over a century ago to meet the academic
needs of students who exhibited special educational needs. Since that time, there
have been two types of education, regular education and special education.
Special education is supposed to be a subsystem of regular education but it is, in
fact, a dual system. Each has its own students, teachers, administrators, and
funding. Although an attempt has been made to rectify this problem (PL 94-142),
it is felt that the dual system still exists (Stainback & Stainback, 1984).

Stainback and Stainback (1984) propose that all students are unique with
their own set of physical, psychological, and intellectual characteristics, and that
all students have unique instructional needs. It is educationally discriminatory to
single out learning disabled students for individual services. They feel that regular
education should be one unified system to meet the unique needs of all students.

Stainback, Stainback, and Sapon-Shevin (1994) report that many educators
are in agreement that children should not be grouped homogeneously based on
their characteristics and that they feel that this is morally inappropriate for reasons of equality. Chief Justice Warren (as cited in Stainback & Stainback, 1984, p. 493), pointed out in the Brown vs. Topeka Board of Education decision that “segregation produces ill effects and separate is not equal”. There is a belief that the special education field needs to recognize itself as part of a whole, and not a separate entity. Also, it must collaborate with general education to create the best possible educational experience for both the handicapped and non-handicapped student (Fuchs & Fuchs, 1994). Many researchers (e.g., Stainback & Stainback, 1984; Steinback et al., 1994; Severance & Glasstrom, 1977; Wang et al., 1986; Whitworth, 1991; Will, 1986) believe that children with disabilities benefit from being mainstreamed into the regular education population.

Regular class placement is most beneficial for learning disabled students with relatively high IQs. Students with lower IQs would benefit from special classes but could still profit socially from being mainstreamed to regular classes for lunch, music, physical education, recess, and so on. Goldstein, Moss, and Jordan (as cited in Madden & Slavin, 1983) found that low IQ learning disabled students generally learned more in special classes than in regular education classes. The opposite was true for higher IQ learning disabled students.

The least restrictive environment constitutes a full range of educational alternatives. It can include full-time placement in a regular education classroom with supportive services; part-time placement in the regular education classroom
with resource room classes part-time, mainstreaming socially for such things as art, lunch, and recess; or being placed in a full-time self-contained special education classroom. The major goal of mainstreamed education is to provide an environment where all children can succeed. While mainstreaming mandates are put into place in the educational settings across our country, there are three areas that need to be considered. First, what effects will mainstreaming will have on the self-concept of learning disabled children? Second, is there a correlation between self-concept and academic achievement? And, third, is the reading achievement of the learning disabled student affected by mainstreaming?

Self-Concept and Mainstreaming

The literature regarding learning disabled children has a persistent theme that questions how the special education received by these children will affect their self-perceptions (Coleman, 1983). There is a general assumption (c.f., Battle, 1978; Battle & Blowers, 1982; Chapman, 1988) that learning disabled students who are isolated from the larger school population for educational purposes have lower self-concepts than those of regular education students. The basis for this assumption is that learning disabled students have average intelligence but are aware that they are not learning as well as is expected of them. As these students become adolescents, they will have an accumulation of negative experiences and cannot help but feel less competent than normally achieving students (Silverman & Zigmond, 1983). Repeated failures in early school years
lead us to have concern about these students' emotional adjustment. It is felt that these failures will cause long-lasting negative effects on the student’s self-concept (Kistner & Osborne, 1987). On the other hand, many studies (e.g., Kistner, Haskett, White, & Robbina, 1987; Kistner & Osborne, 1987; Muse, 1992; Vaughn, Haager, Hogan, & Kouzakanami, 1992) show that, although some subscales of self-concept may be lower, general self-concept is no different for learning disabled students than it is for regular education students.

There are conflicting viewpoints on whether self-contained class placement affects the self-concept of pupils. Battle (1978) points out that those who are against self-contained placement of learning disabled children feel that isolation and segregation of these children will foster negative feelings and low self-worth. On the other hand, those who feel that self-contained placement is appropriate for learning disabled children argue that the less competitive environment of the special class tends to reduce anxieties and, therefore, foster positive feelings of self-worth.

Kistner et al. (1987) compared 48 mainstreamed learning disabled students to a control group of regular education students. They used the Perceived Competence Scale for Children (PCSC) to access self-concepts of mainstreamed learning disabled students. This instrument presents four subscales that measure the students’ perceptions of their abilities in cognitive, social, and physical domains, as well as their general self-esteem. If the learning disabled students
have generally negative self-concepts, than the learning disabled students and the nondisabled students should differ on their responses on this test in both the general self-worth subscale and the academic competence subscale. If, on the other hand, the learning disabled students have positive feelings of self-worth despite their academic failures, it would be expected that they would differ in their perceptions of academic ability but not in their responses to the general self-worth scale. Although this study showed that learning disabled students rate their academic and physical abilities more negatively than their nondisabled peers, they did not differ in general dissatisfaction with themselves.

Kistner and Osborne (1987) did a two-year longitudinal study using 34 students. It was felt that the experiences of being mainstreamed for a two year period would minimize the negative effects of failure on the self-evaluations of these learning disabled students. If this was true, than their responses when the PCSC was repeated two years later should not have become more negative, and negative self evaluations would be limited to the academic domain. It was found that learning disabled students did not become more negative about themselves over time. Their perceptions of physical competence improved over the two-year time span. It was further found that the learning disabled students' perceptions of academic competence were not related to their perceptions of nonacademic abilities or self-esteem. It is felt that these students may be realistic about their academic problems and still maintain a positive self-concept.
Chapman (1988), Coleman (1983), and Silverman and Zigmond (1983) were in agreement with the studies by Kistner & Osborne (1987) and Kistner et al. (1987). Although the movement toward educating the mildly handicapped in the regular education classroom was predicated on the assumption that the labeling and segregation of children with disabilities creates a social stigma which affects the child's self-concept, these studies suggest that self-concept is more likely to be negatively affected when learning disabled children perceive their abilities as inferior to those of regular education children rather than as a reaction to their handicapped label (Coleman, 1983).

Many researchers have been interested in studying the self-concepts of children. Because of this interest, there is a need for a satisfactory instrument for measuring children's self-concept. Judging from the wide variety of reviews (Black, 1974; Cooley & Ayres, 1988; Coleman, 1983; Chapman, 1988; Silverman & Zigmond, 1983), the Piers-Harris Children's Self-Concept Scale (Piers-Harris) is one of the best instruments available for assessing children's self-perceptions (Smith & Rogers, 1977).

Coleman (1983) and Silverman and Zigmond (1983) both used the Piers Harris Children's Self-concept Scale to assess the self-concept of learning disabled students. The Coleman (1983) study used 276 students. There were 138 special education subjects who were in one of three instructional settings: (a) self-contained classes, (b) 1-hour resource, and (c) 2-hour resource. The other 138
subjects were regular education students. The results of this study showed that there were comparable scores between the disabled and normal students. However, it was also evident from this study that children who are experiencing significant academic difficulties and remain solely in a regular classroom will demonstrate lower self-concepts. These results argue against the assumption that students placed in self-contained classrooms will have lower self-concepts. Coleman states that when learning disabled children are placed in regular education classrooms, their feelings of academic inadequacy as compared to their regular education classmates will affect their self-concept. By contrast, the special educational classroom creates a homogeneous group with regard to ability and, therefore, bolsters the student’s self-image.

Silverman and Zigmond (1983) conducted two studies, one comparing 159 learning disabled students to the normal sample of the Piers Harris Scale, and the other study using 40 students from different areas to expand the findings of the first study. In both studies, it was found that the learning disabled students did not have lowered self-concepts as compared to the normal sample.

On the other hand, studies done by Battle (1976, 1978) support the assumption that learning disabled students will have lower self-concepts than their regular education peers. In the second study, Battle (1978) found that the 90 regular education students scored significantly higher on self-esteem and perception of ability than did the 90 learning disabled students who were in
regular education classrooms. This study supported the earlier study (Battle, 1976) which found that students who were experiencing academic or behavioral problems had scores that were significantly lower than those students who were functioning satisfactorily. Battle (1978) further tested learning disabled students after placement in special classes. These students scored significantly higher than they did when they were tested prior to placement. This indicates that special class placement enhances the self-concept of children experiencing learning difficulties.

The results of the Battle and Blowers (1982) study were consistent with Battle (1978), indicating that special education students who were in self-contained classrooms over a three year period exhibited greater gains in self-concept and perception of ability. Battle and Blowers (1982) also stated that there could be an underlying process responsible for the results of their study. Positive perceptions of self-worth are associated with academic success. In the smaller class setting of self-contained classrooms, there is more individual instruction and a greater degree of academic success. Also, in self-contained classrooms, students base their self-esteem on comparisons to other academically similar children and not ones who are higher achieving. This could lend itself to higher self-concepts.

Students with learning disabilities are assumed to have lower self-concepts than normally achieving students. The impact of a child having a poor self-concept depends on whether the deficits are in the general self-concept or are
limited to how the child perceives himself academically or socially (Cooley & Ayres, 1988). One of the contributions to low self-esteem may also be peer acceptance. Greca and Stone (1990) examined 32 mainstreamed students who were learning disabled, 32 low achieving students, and 30 average achieving students to determine if there were any differences between the groups in relationship to their peer ratings of acceptance and their perceptions of self-concept. The peer rating scale results indicated that the children with learning disabilities received significantly lower ratings of peer acceptance. There was no difference between the low achieving and the average achieving students. With regard to self-perception, the children with learning disabilities perceived themselves as lower in social acceptance and general self-worth. There was no difference between the low achieving and average achieving groups.

Wylie (1961) criticized the use of general self-concept as being too broad. Self-concept studies fall into two categories. There are those that examine a general self-concept and use such instruments as the Coopersmith or Pier-Harris Scales. There are also studies that examine specific aspects of self-concept. Academic self-concept is one that is usually examined in these later studies (Cooley & Ayres, 1988). Although many studies (e.g., Kistner et al., 1987; Kistner & Osborne, 1987; Muse, 1992; Vaughn et al., 1992) found no significant differences between learning disabled students and their regular education peers, these studies were examining the general self-concept of the students. Some
studies (e.g., Muse, 1992; Kistner et al., 1987; Cooley & Ayres, 1988) also identified differences between samples in subscales of their studies. These studies examined different components of self-concept as well as general self-concept. The results of these studies consistently show a lower perception of academic ability for the learning disabled student than the regular education student.

Of the 21 studies that Chapman (1988) analyzed, it was found that learning disabled students consistently reported lower academic self-concepts than non-disabled students. Chapman (1988) conducted a two-year longitudinal study to examine academic self-concept over a two-year period. The results showed that, at the end of a two-year period, learning disabled students had more negative academic self-concepts than their nondisabled peers. This suggests an overall decline in academic self-concept over time. In the results of another longitudinal study, Battle and Blowers (1982) also determined that handicapped students had lower academic self-concepts.

The difference in findings between general and academic self-concept is in line with the structure of self-concept. Academic self-concept is more closely related to school achievement than general self-concept. The way that a student performs academically in school will have a direct bearing on perceptions of ability, whereas general self-concept, which includes nonacademic, physical, and social factors, probably extends beyond school (Bryne, 1984; Shavelson, Hubner, & Stanton, 1976).
The Cooley and Ayres (1988) study used the Piers Harris Scale to examine differences in various aspects of self-concept. It was also their intent to determine if differences in general self-concept are really general — or if they are a result of academic self-concept differences. Their results suggested that students with learning disabilities did have lower academic self-concepts than their normally achieving peers. The study also found a difference in general self-concept between groups, but statistical analysis showed that this was due to the academic component within the Pier-Harris Scale. When this academic component was removed, there were no differences in general self-concept. The results of this study suggest that one of the reasons for conflicting results in the literature concerning general self-concept between learning disabled students and normally achieving students is that the general self-concept scales do not include a large enough portion of academic questions.

Correlation Between Self-Concept and Achievement

There appears to be a moderate relationship between self-concept and measures of achievement. The correlations increase where specific school-related self-concepts are examined (Bryne, 1984; Chapman, 1988). Self-concept can affect a child’s behavior and his academic achievement. The later influence is manifested through expectations, motivation, and persistence on academic tasks (Cooley & Ayres, 1988). Bryne (1984) indicated that, not only is academic self-concept clearly differentiable from general self-concept, but that it is more highly
correlated with academic achievement than is general self-concept. "Research not only supports the idea that self-concept of ability and achievement are related but that this relationship is strengthened when self-concept measures are linked to specific academic content areas" (Hamachek, 1995, p. 419). Schunk (1981) also suggested that self-perception of capabilities has an important effect on achievement.

More than 45 years ago, Prescott Lecky was the first individual to suggest that a student’s perception of himself might have a relationship to academic achievement. Lecky planted the idea that suggested that academic achievement may not just be a measurement of a student’s ability, but also of a student’s perceptions of their abilities (as cited in Hamachek, 1995).

Many studies of self-concept conducted over the past quarter of a century have concluded that there is a concurrent relationship between a student’s achievement and academic self-concept (Byrne, 1984; Hansford & Hattie, 1982). Hansford and Hattie reviewed 128 studies in their meta-analysis. This involved a sample of 202,823 people and produced a database of 1,136 correlations between self-ratings and performance measures. Although they found that the relationship between self-concept and achievement is small, it was, nonetheless, real.

There is one school of thought that states that students first have to do well at school and then they will have a positive self-image about their academic abilities. Others argue that a student must have a positive self-image in order to do
well in school (Hamachek, 1995). According to Chapman (1988), a student's self-concept is seen as influencing achievement through its effect on motivation. Individuals with positive self-concepts tend to try harder and persist longer when faced with a difficult task. On the other hand, students who do not have good self-concepts tend to reduce their effort or give up altogether when faced with work that is difficult.

For example, Hoge, Smit and Crist (1995) state that many individuals in the education field assume that a student's academic achievement is affected by self-concept. They analyzed longitudinal data to clarify the relationship between self-concept and academic achievement. Using the Rodenberg Self-Esteem Scale, 363 students were studied. It was concluded that the influence of self-concept on achievement is weaker than correlational studies have led us to believe.

Black (1974), using the Piers-Harris Scale, also investigated the relationship of self-concept and academic achievement. In his study, he used two samples of children who were learning disabled. Twenty-five of the students were normal readers and 25 were test documented retarded readers. It was found that the mean self-concept of the retarded reader sample was lower than the mean of the normal reader sample.

Achievement and Mainstreaming

It is low achievement that defines students as learning disabled. Therefore, it becomes a priority to improve the achievement of students with mild academic
handicaps. Special class placement is intended to better meet the academic needs of the low achieving students. It has been felt that a smaller student-teacher ratio could facilitate education by attending more to individual student characteristics. This homogeneous grouping would also allow the teacher to target the curriculum to the level of the handicapped student. However, research on achievement fails to support the instructional effectiveness of special class placement (Madden & Slavin, 1983).

In a study conducted by Goldstein, Moss and Jordan (1965), 126 children with IQS of 85 or below were randomly assigned to special or regular classrooms. At the end of two years, the students in the regular education classes showed superior reading skills as compared to the students in the special classrooms.

In a similar study, Calhoun and Elliott (1977) provided evidence to support regular class placement over special education self-contained placement for learning disabled students. Their study included 100 learning disabled students who were assigned to either full-time special education classes or to regular classes. These students were assessed every fall and spring for three years using the Stanford Achievement test. The results indicated that placement in a regular classroom had a more positive effect on the achievement of the students who were placed in those classes. Using the Piers Harris Children's Self-Concept Scale, it was also discovered in this study that the students who were assigned to the regular classrooms had more positive self-concepts than those in the special
Beck, Lindsey and Frith (1981) agree with many other researchers (e.g., Madden & Slavin, 1983; Goldstein et al., 1965; Calhoun & Elliott, 1977) that placement in a regular classroom has a positive impact on learning disabled students -- both academically and socially. Although this study did show increased achievement in arithmetic for students who were in self-contained classrooms for two or more years, there was no affect on any other academic scores. It was also found that the IQ scores of those students in self-contained classrooms had declined.

Conclusion

Based on the information reported above, there is limited information with regard to the relationship between mainstreaming and self-concept and reading achievement. This study will focus on the effects that mainstreaming has on the learning disabled student with regard to self-concept and reading achievement. It is predicted that there will be a positive relationship between mainstreaming and the self-concept and reading achievement of the learning disabled student who is mainstreamed versus the learning disabled student who is in a self-contained special education classroom.
Chapter Three
DESIGN OF STUDY

Method

This study is a comparative study, a common design to investigate the questions posed in this study. As reflected by the studies reviewed in the previous chapter, this was overwhelmingly the design of choice. The independent variables consist of two classrooms -- a self-contained classroom and a mainstreamed classroom. The dependent variables are the self-concept scale results and reading achievement test scores.

Participants

Participants for this study were 17 learning disabled children enrolled in grades 3 and 4 and accepted for placement in special education classes for the learning disabled for the 1995-96 school year. There are 7 students in the control group (self-contained class) and 10 students in the experimental group (mainstreamed class).

In the control group, there are 3 males and 4 females between 8 and 10 years of age (M = 9 years, 4 months). The group was racially diverse with 4 Caucasians, 2 African Americans, and 1 Hispanic. These students are in a self-contained classroom and, with the exception of several students who are
In the experimental group, there are 6 males and 4 females between 8 and 10 years of age ($M = 9$ years, 5 months). This group was also racially diverse with 4 Caucasians, 5 African Americans, and 1 Hispanic. These students are mainstreamed into regular education classrooms for homeroom, lunch, all special subjects, assemblies, class parties, class trips, etc. Also, 90% of these participants are mainstreamed for 1 to 3 academic subjects.

All of the children in the study are placed in Perceptually Impaired (PI) classrooms. Although most of the participants are classified PI, there are some participants who have different classifications. They are in PI classrooms because this placement has been deemed appropriate for their instructional needs as determined by the district's Child Study Team.

Written parental consent for participation in this study was obtained through the use of consent forms, which were mailed to the parents of the participants. A sample form can be found in Appendix A. Permission slips were mailed back to the researcher. A sample can be found in Appendix B. The response rate was 74%. All participants are students in a Southern New Jersey school district. The control group and the experimental group each attend different elementary schools within the district. The schools are located in a small rural town with lower to middle income levels.

Setting

Testing for self-concept was conducted using a modified form of the Piers-
Harris Self-Concept Scale. The inventory consisted of 40 questions. Of the 40 questions, there were 20 that were considered positive responses. A copy of this inventory can be found in Appendix C. The scale was administered in the classroom in small group settings, and pre-test and post-test responses were gathered. Each item was read to the participants by the classroom teacher due to the varying levels of students' reading abilities. Students responded to each of the 40 questions by circling a yes or no response to each question being asked. Clarification was provided on request. The time interval between pre-test and post-test of the self-concept scale was 5 months, a statistically valid interval.

The reading portion of the Peabody Individual Achievement Test (PIAT) was used for pre-test and post-test comparisons. The pre-test was given one year previous to this study and was administered by the classroom teachers. The post-test was administered by this researcher. Post-test objectivity was maintained by strictly adhering to the publisher's criteria. Scores will be reported in standard score format.
Chapter Four

ANALYSIS OF DATA

Purpose of The Study

The major purpose of this study was to determine if there was a difference between the self-concept and the reading achievement of learning disabled students who are mainstreamed and those who are in a self-contained special education classroom. The sample for this study was restricted to 17 learning disabled students enrolled in grades 3 and 4 who were placed in special education classes for the learning disabled for the 1995-96 school year. The control group consisted of 7 students who were in a self-contained special education classroom. With the exception of several students who are mainstreamed for an academic subject, most are not mainstreamed for any reason. The experimental group consisted of 10 students who were mainstreamed into regular classrooms for homeroom, lunch, special subjects, assemblies, class trips, etc. Also, 90% of these participants were mainstreamed into a regular education classroom for 1 to 3 academic subjects.

Both the mainstreamed students and the self-contained students were given the Peabody Individual Achievement Test in April of 1995. This served as the pre-test. The same test was administered in March 1996 and served as a post-test.
The reading portion of the test was used for the pre-test and post-test comparisons.
Both groups were also given a modified form of the Piers-Harris Self-Concept Scale. The scale was administered to both groups in September, 1995, and again in February, 1996. The results were used for pre-test and post-test comparisons. The questions on the Piers-Harris that related directly to academic self-concept were further evaluated for pre-test and post-test comparisons.

**General Self-Concept Comparisons**

Was there a positive relationship between mainstreaming and the general self-concept of the mainstreamed learning disabled student versus that of the learning disabled student in the self-contained classroom?

Both within and between group analyses were conducted using paired t-tests for dependent means and two-tailed t-tests for independent means respectively. In the area of general self-concept, the mainstreamed students attained a mean of 28.3 (SD = 6.4) on the pre-test, and a mean of 32.7 (SD = 3.0) on the post-test. The self-contained students, on the other hand, attained a mean of 30.0 (SD = 5.4) on the pre-test, and a mean of 28.1 (SD = 4.8) on the post-test. The difference between the groups on the post-test was significant, \( t_{12} = 2.14, p < .05 \). See Table 1 for the mean scores for the general self-concept of the two groups.

Within group analysis indicated that, in the area of general self-concept, the mainstreamed students attained a mean difference score between their positive
responses of 4.4 (SD = 5.1). The paired t-test indicated that this was significant at $t = 2.28, p < .10$. The self-contained students, on the other hand, attained a mean difference score between their positive responses of 1.9 (SD = 5.0). The paired t-test indicated that this was not significant. See Table 2 for actual within group scores for general self-concept.

**Academic Self-Concept Comparisons**

Was there a positive relationship between the academic self-concept of the mainstreamed students versus the students who were in the self-contained classroom?

Both within group and between group analyses were conducted using paired t-tests for dependent means and two-tailed t-tests for independent means respectively. In the area of academic self-concept, the mainstreamed students attained a mean of 6.8 (SD = 1.7) on the pre-test, and a mean of 8.3 (SD = 1.1) on the post-test. The self-contained students attained a mean of 5.7 (SD = 2.1) on the pre-test, and a mean of 8.6 (SD = 1.8) on the post-test. The difference between the post-test scores for the groups was not significant. See Table 1 for mean scores for academic self-concept.

Within group analysis indicated that, in the area of academic self-concept, the mainstreamed students attained a mean difference score between their positive scores of 1.4 (SD = 1.0). The paired t-test indicated that this was significant at $t = 3.87, p < .01$. The self-contained students attained the mean difference score
between their positive responses of 2.9 (SD = 3.6). The paired t-test indicated that this was approaching significance, \( t_{7} = 2.10, p < .10 \). See Table 2 for actual within group scores for academic self-concept.

Achievement Comparisons

Was there a positive relationship between the reading achievement of the mainstreamed students versus the students who are in a self-contained classroom?

Both within and between group analyses were conducted using paired t-tests for dependent means and two-tailed t-tests for independent means respectively. In the area of reading achievement, the mainstreamed students attained a mean of 79.4 (SD = 7.8) on the pre-test, and a mean of 76.4 (SD = 13.0) on the post-test. The self-contained students attained a mean of 84.0 (SD = 11.3) on the pre-test, and a mean of 69.0 (SD = 10.1) on the post-test. The difference for the post-test between the groups was approaching significance, \( t_{8} = 6.77, p < .10 \). See Table 1 for mean scores for reading achievement.

Within group analyses indicated that, in the area of reading achievement, there were no significant differences for either group when pre-test and post-test results were compared for positive responses. See Table 3 for actual scores for reading achievement.

Results indicate that, when comparing the two groups, there was no significant difference between the groups in regard to reading achievement and academic self-concept. However, in regard to general self-concept, there was a
significant difference between the mainstreamed students and the self-contained students. Results also indicate that, within groups, the mainstreamed group had a significant difference between their pre-test and post-test results with regard to general self-concept and reading achievement. There was not a significant difference in their academic self-concept results. On the other hand, the self-contained group had a significant difference between their pre-test and post-test results with regard to general self-concept and were approaching significance in reading achievement. There was no significant difference between their scores in academic self-concept.
Chapter Five

SUMMARY, CONCLUSIONS, and RECOMMENDATIONS

Summary

Special education has been a part of our educational system for over a century. It is felt that this subsystem of regular education is necessary in order to guarantee that the academic needs of students who have learning disabilities are being met. The question arises whether those needs must be met in a segregated setting; or, whether these unique students can receive their educational training among the mainstream of regular education students. It is the belief of many researchers and educators that special education students would benefit both academically and emotionally by being integrated into regular classrooms.

The least restrictive environment constitutes a full range of educational alternatives. Some special education students may be able to be placed into a regular classroom with in-class support, some may receive resource room instruction part time, and, even for students with very low IQS, mainstreaming should take place at a social level by mainstreaming for such things as art, lunch,
homeroom, and recess. There is a general assumption that learning disabled students who are isolated from the regular education population will have lower self-concepts than those of regular education students. Many studies also indicate that a student's perception of himself has a relationship to his academic achievement.

There is limited information regarding the relationship between mainstreaming and self-concept and reading achievement. Therefore, the following research questions were formulated:

1. Will mainstreaming have a positive influence on the general self-concept of learning disabled students who are placed in regular education classrooms as compared to learning disabled students who are in self-contained classrooms?

2. Will mainstreaming have a positive influence on the academic self-concept of learning disabled students who are placed in regular education classrooms as compared to learning disabled students who are in self-contained classrooms?

3. When learning disabled students are mainstreamed, will there be a positive impact on their reading achievement as compared to learning disabled students who are in self-contained classrooms?

Conclusions

Does mainstreaming have a positive influence on the self-concept and achievement of learning disabled students? An examination of the data indicates the following:
1. With respect to the impact that mainstreaming has on the general self-concept of the learning disabled student versus that of the self-contained learning disabled student, the data suggested that there was a significant difference between the groups. The labeling of special education students affects their judgement of themselves. It appears that mainstreaming can attribute to the reduction of the stigma that is felt when students are placed in segregated settings. General self-concept not only includes feelings about academic success, but also nonacademic, physical, and social factors. All of these factors are positively fostered by being placed with regular education students. This study also showed that, for the mainstreamed student, there was an increase of general self-concept over time. This might lead one to believe that the longer a student gets to experience mainstreaming, the better his/her self-concept may be.

2. With respect to the impact that mainstreaming has on the academic self-concept of the learning disabled student versus that of the self-contained learning disabled student, the data suggested that there was no significant difference between the mainstreamed group and the self-contained group. Self-contained classrooms are more homogeneous with regard to ability. There is also a smaller class size, more individual attention, and a greater degree of academic success. The results of this study might suggest that the less competitive environment of the self-contained classroom may reduce anxieties and, therefore, create positive feelings of academic self-concept for the students who are in those rooms.
Although there was no significant difference between the two groups, there was a significant difference within the mainstreamed group. Their academic self-concept scores were higher on the post-test than on the pre-test. This might suggest that, given more time in the mainstream setting, there might be a further increase in the feelings of academic self-concept.

3. With respect to the impact that mainstreaming has on the reading achievement of the learning disabled students versus that of the self-contained learning disabled students, the data suggested that the difference between the groups was approaching significance. Since it is the case that the higher functioning special education students are the ones who are mainstreamed for the academic subjects, these results may indicate that these students are properly placed in their respective settings. Also, because this is just the first time that many of these students are mainstreamed for academic subjects, it may be too early to see a true effect on academic achievement. Over time, there may be more significance.

Recommendations For Further Study

The impact of mainstreaming learning disabled students into the regular education setting deserves further scrutiny. Anyone wishing to further investigate the implications that mainstreaming has on both the achievement and the self-concept of learning disabled students should consider the following recommendations:
1. This study was conducted with a limited sample size. Any further studies should be conducted with a sizable population in order to make the study generalizable.

2. This study was conducted using two classrooms. Any further studies should use multiple classrooms in order to minimize teacher influence on the self-esteem of the students.

3. A longitudinal study should be considered for lasting effects.

4. Any further studies may want to consider tracking students from initial placement into special education. This will allow for consideration to the effects of the mainstreamed learning disabled student in regard to length of placement.

5. In regard to the self-concept scales, this study was limited by a four month span between pre-test and post-test. It is recommended that a longer time span be allowed between tests in order to increase the validity of the study.
References


Exceptional Children, 52, 411-415.


Table 1

*Mean Scores (Standard Deviation in parenthesis) for achievement, total self-concept, and academic self-concept.*

**PRE-TEST**

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>(\bar{x}) (SD)</th>
<th>(\bar{x}) (SD)</th>
<th>(\bar{x}) (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control (Self-contained)</td>
<td>5</td>
<td>76.4 (12.9)</td>
<td>28.3 (6.4)</td>
<td>6.9 (1.7)</td>
</tr>
<tr>
<td>Experimental (Mainstreamed)</td>
<td>8</td>
<td>76.8 (8.07)</td>
<td>30.0 (5.4)</td>
<td>5.7 (2.1)</td>
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**POST-TEST**

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>(\bar{x}) (SD)</th>
<th>(\bar{x}) (SD)</th>
<th>(\bar{x}) (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control (Self-contained)</td>
<td>5</td>
<td>69.0 (10.0)</td>
<td>32.7 (3.0)*</td>
<td>8.3 (1.1)</td>
</tr>
<tr>
<td>Experimental (Mainstreamed)</td>
<td>8</td>
<td>79.3 (11.7)</td>
<td>28.1 (4.8)*</td>
<td>8.6 (1.8)</td>
</tr>
</tbody>
</table>

* *p < .054, difference between groups is approaching significance*
Table 2
Comparison of Means for Self-Concept (Within Group Comparisons using Paired t-test)

**GENERAL SELF-CONCEPT**

<table>
<thead>
<tr>
<th>Group</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
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</thead>
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<tr>
<td>Control (Self-contained)</td>
<td>0.99</td>
<td>6</td>
<td>NS</td>
</tr>
<tr>
<td>Experimental (Mainstreamed)</td>
<td>2.29</td>
<td>6</td>
<td>0.10</td>
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</table>

**ACADEMIC SELF-CONCEPT**

<table>
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<th>df</th>
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<tbody>
<tr>
<td>Control (Self-contained)</td>
<td>2.09</td>
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<td>0.10</td>
</tr>
<tr>
<td>Experimental (Mainstreamed)</td>
<td>3.87</td>
<td>6</td>
<td>0.01</td>
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</table>
Table 3
Comparison of Means for Reading Achievement (Within Group Comparisons using Paired t-test)

**READING ACHIEVEMENT**

<table>
<thead>
<tr>
<th>Group</th>
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<th>df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control (Self-contained)</td>
<td>1.95</td>
<td>4</td>
<td>NS</td>
</tr>
<tr>
<td>Experimental (Mainstreamed)</td>
<td>1.19</td>
<td>4</td>
<td>NS</td>
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</tbody>
</table>
APPENDIX A
Dear Parents,

I have not received your consent to include your child in the study I am conducting dealing with self concept and reading achievement. I was wondering if you had any questions that I may answer for you. Please don’t hesitate to call me at 953-0288 if I can answer any questions or concerns that you may have.

I need at least ten students from both Mrs. Lea’s class and from my class to complete this study. I’m sure that you will agree that any investigation into how to make education better for our students is a worthwhile endeavor. I really appreciate your assistance with this project.

Perhaps you have misplaced the consent form that I previously sent. If so, I am enclosing another one. This form has a response for your consent and also a response if you do not want to give your permission. I have also enclosed a stamped envelope. Please mail this response back to me either way so that I will know your intentions. If you have already mailed your response, I thank you very much and you can disregard this letter.

THANK YOU VERY MUCH FOR YOUR COOPERATION!!

Sincerely,

Priscila Hanzok
Special Education Teacher
Brainerd School
APPENDIX B
I give my consent for my child ____________________________

To take part in an education study being conducted by

Priscilla Hanzok. I understand that my child's name will be kept
confidential and that the results of the study will be used for a
thesis being done for educational purposes.

__________________________  __________________________
Signature of parent          Date

I do not wish for my child to take part in the study.
APPENDIX C
THE PIERS - HARRIS CHILDREN’S SELF CONCEPT SCALE

(The Way I Feel About Myself)

by

Ellen V. Piers, Ph.D.

And

Dale B. Harris, Ph.D.

Published by

Counselor Recordings and Tests
21. I am often mean to other people................................. yes no
22. My classmates in school think I have good ideas................ yes no
23. I am unhappy.......................................................... yes no
24. I have many friends................................................ yes no
25. I am cheerful......................................................... yes no
26. I am good looking.................................................. yes no
27. I have lots of energy................................................ yes no
28. I get into a lot of fights.............................................. yes no
29. People pick on me.................................................... yes no
30. I am a leader in games and sports............................ yes no
31. I am clumsy............................................................ yes no
32. I forget what I learn................................................ yes no
33. I am easy to get along with..................................... yes no
34. I loose my temper easily........................................ yes no
35. I am a good reader................................................ yes no
36. I would rather work alone than with a group............. yes no
37. I am often afraid.................................................... yes no
38. I can be trusted...................................................... yes no
39. I am different than other people.............................. yes no
40. I am a good person................................................. yes no
1. My classmates make fun of me......................................................... yes no
2. I am a happy person................................................................. yes no
3. It is hard for me to make friends.................................................. yes no
4. I am often sad................................................................. yes no
5. I am smart......................................................................... yes no
6. I get nervous when the teacher calls on me........................... yes no
7. When I grow up, I will be an important person...................... yes no
8. I get worried when we have tests in school.............................. yes no
9. I am well behaved in school.................................................... yes no
10. I have good ideas............................................................... yes no
11. I give up easily....................................................................... yes no
12. I am good at my school work.................................................... yes no
13. I am slow in finishing my school work..................................... yes no
14. I am an important member of my class..................................... yes no
15. I often get into trouble.............................................................. yes no
16. I am lucky........................................................................... yes no
17. I worry a lot........................................................................ yes no
18. I like being the way I am.......................................................... yes no
19. I sleep well at night............................................................... yes no
20. I hate school........................................................................ yes no