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A Study of the Relationship Between Self-Concept and Heterogeneous and Homogeneous Grouping Procedures with Seventh-Grade Students

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A STUDY OF THE RELATIONSHIP BETWEEN SELF-CONCEPT AND HETEROGENEOUS AND HOMOGENEOUS GROUPING PROCEDURES WITH SEVENTH-GRADE STUDENTS

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Wanda Hughes Johnson May 1992 81 Pages

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Homogeneous grouping, a technique which assigns learners by ability levels into class sections for instruction, has undergone considerable controversy. This study investigated the relationship between global self-concept and two procedures used to group seventh-grade students for instruction. The two procedures were heterogeneous and homogeneous grouping. The Piers-Harris Children's Self-Concept Inventory Scale was administered to 76 heterogeneously grouped students and 70 homogeneously grouped students. A T-Test was applied to study the data by total groups. It was concluded that there was insufficient evidence to reject the hypothesis that there was no difference between the two groups.

CHAPTER I

Considerable controversy surrounds the two major techniques used to assign learners into class sections for instruction: heterogeneous and homogeneous grouping. A reoccuring concern about homogeneous grouping is its effect on the self-concepts of children, especially those in the lower groups (Harp, 1989). Mann (1960) suggested that ability grouping may be a mistake. In contrast, Dyson (1967) concluded that ability grouping alone does not appear to have a significant effect on a student's self-concept. While the research results in this area are not consistent enough to provide any firm conclusions, Harp (1989) stated that the tendency is to conclude that homogeneous grouping has negative effects on the self-concepts of some children. Delamont and Galton (1986) referred to the debate that exists concerning heterogeneous and homogeneous grouping. They stated that they will not argue for or against either procedure. They suggested that the form of the group, whether it is heterogeneous or homogeneous, has at least two effects on students. First, it is the place where they have to make friends or enemies. Secondly, forms or groups get

reputations and labels attached to them by the school staff and by other students. Staff labels may become public. Staff members may tell the students the reputations they have, or the reputations and labels may be discussed inside the lounge. Also, students develop labels for other groups. These labels may be derogatory terms. Delamont and Galton appeared to be concerned about labeling. They indicated that students are conscious of not only the form or group they may be placed in but also from where their labeling stems. Although questions have been raised concerning the effect of the two grouping procedures on the self-concept of students, almost no research is available to aid in answering questions of this nature.

Purpose of the Study

The attention in research investigations to these grouping procedures has usually been directed toward the achievement of students under the two grouping arrangements. Brown, Carter, and Harris (1978) criticized the practice of ability grouping due to its possible negative effects on the self-concepts and achievement motivation. Berliner (1985) suggested that ability grouping may be quite detrimental to low ability students. He expressed concern that ability grouping may increase diversity,rather than reduce it. Applegate (1988) seemed appalled at the techniques used in many of today's classrooms. She stated that through homogeneous grouping after IQ testing, children find out

their capacities and begin to diminish. Manning and Lucking (1990) believed that ability grouping lowers self-concepts and causes psychological damage among lower-ability students.

One of the more prominent facets of the individual referent of human behavior is the self-concept (Zink, 1982). This researcher felt that a great deal more should be known concerning the relationship of the self-concept to ability grouping.

The present study was undertaken as an investigation aimed at ascertaining the relationships between the grouping techniques used and global self-concepts of students in two seventh-grade populations.

Justification of the Need for Research

At present there is a dearth of research dealing with the effects that various arrangements for grouping learners have on the self-concepts of students. Overwhelmingly, the abundance of the professional literature that treated this area suggested that homogeneous ability grouping may have negative effects on the development of a healthy self-concept.

Although homogeneous ability grouping has been attacked by reviewers of the literature (Wilson & Schmits, 1978), teachers and administrators continue to support it (Goodlad & Oakes, 1988). In a study by Wilson and Schmits (1978), they

found that teachers supported ability grouping for the following reasons:

1. Teachers felt that ability grouping for instruction on the basis of ability was instructionally effective.

2. A better spirit of cooperation among students existed in homogeneous groups.

3. Teachers found teaching all abilities levels to be easier in homogeneous groups.

4. Teachers felt that students put forth more effort in ability groups.

5. Teachers handled discipline easier in ability groups.

6. Teachers felt that the low groups were less discouraged.

7. They felt that the low groups and the high group benefitted most from the practice.

While ability grouping is widely approved by teachers and administrators (Findley & Bryan, 1975; Goodlad & Oakes, 1988), some researchers recommended its abolition (Manning & Lucking, 1990). The abundance of research suggested that homogeneous ability grouping may be damaging, not only to achievement but also to the social-emotional development of children (Noland & Taylor, 1986).

It is not uncommon for a gap to exist between educational research and educational practices (Dar and Resh, 1986). Dar and Resh stated that the discrepancy between the prevalence of homogeneous grouping in schools and the failure

of research to discern its benefits is remarkable. From their investigations, it appeared that teachers' attitudes toward homogeneous grouping in the United States, England, and Israel reveal an overall positive opinion. They contended, however, that research on the effects of separation by learning ability has failed to trace any consistent educational advantage. In fact, this research provided evidence of a negative scholastic and social effect upon students in the lower homogeneous group. Dar and Resh contended that students evaluate themselves and their academic performance in relation to their classmates. If the academic self-image is low, students often feel stigmatized. Consequently, students may have negative feelings about school and about their peers.

Ample allusions to the possible harmful effects of grouping practices are to be found in the professional literature of education. Summarizing research on homogeneous grouping, Hammond (1962) stated, "The children did seem generally to know their own grouping; and responses indicated the presence of many self-pictures, a large number in terms of inferiority or superiority to other children" (p. 24). Another study of Hammond (1962) reflected "that children classified as 'dull' felt stigmatized and that the bright ones were snobbish" (p. 24).

Jersild (1952) reported that "at nearly all grade levels from fourth grade through high school more young people found fault with themselves because of what they regarded as lack

of ability in one aspect or another of their work at school..." (p. 80). He further stated that "the school also plays an important part in the kind of self appraisal which young people make when they appraise themselves in terms of their standing among their peers" (pp. 91-92). Spence (1961) wrote in her dissertation:

> Because self acceptance and acceptance of others is tantamount to 'psychological adjustment' or mental health, and because of the intensified search for self, manifested during the somewhat traumatic period of adolescence, there is a crucial need for research which will give information about the way the adolescent perceives himself and his world (p. 16).

Recent studies that address the issues of schooling cited severe problems with the practice of assigning students to classes based on academic abilities. Boyer (1983) found that grouping affects students' self-image and motivation, especially for students in the lower tracks or in the vocational tracks. Felt (1985) believed that track placement apparently affects students' plans for the future beyond their aptitudes and grades.

In a survey conducted by Marc Kerble (1988), he found that 60 percent or 62 of the seventh-grade students felt that there should be grouping the next year; however, 40 or 42 percent did not agree. Kerble contended from his study that students' perceptions of themselves and others are affected by the ability group to which they are assigned. He

concluded that a student's self-image relates to his/her learning potential--the stronger the self-image, the greater the learning potential. With that premise, heterogeneous rather than homogeneous grouping would enhance students' self-image.

According to Combs (1962), four characteristics underlie the behavior and personality of adequate persons:

1. A positive view of self.
2. Identification with others.
3. Openness to experience and acceptance.
4. A rich and available perceptual field.

If it can be assumed that an important aim of a good school system is to promote the development of adequate and psychologically healthy individuals, we should ask, "What are the implications for the development of positive self-feelings of the respective practices of heterogeneous and homogeneous grouping?" (p. 3). This question was posed by Dyson (1965) who continued to pose others. What does it mean to a student who is continually with those with less academic ability? What does it mean for those who are constantly with those of superior ability or to those with average ability? What happens to the self-feelings of the academically slower student who is daily forced to measure himself against superior students when they are assigned to the same class? According to Combs (1962), "People learn who they are and what they are from the ways in which they have been treated by those who surround them in the process of

growing up" (p. 24). Sullivan (1947) referred to this as "learning about self from the mirror of people."

Earl Kelley (1962) stated, "The crucial matter is not so much what you are, but what you think you are. And all this is always in relation to others" (p. 10). This statement offered a challenge to re-examine some current educational practices in view of their implications for the development of a healthy self-image (Dyson, 1965).

Dar and Resh (1986) investigated existing educational research concerning the affective domain of students with respect to mixing and separating pupils. They summarized that existing studies have paid much less attention to the affective domain. They cited the findings of Ekstrom in 1961: Of the thirty-three studies surveyed, only one dealt with the affective domain. They referred to the NEA survey of fifty studies in 1968; only 15 dealt with affective variables. They suggested that not only has the affective domain seldom been treated, but when it is considered, it is disconnected from academic achievement. Dar and Resh stressed that the possible price paid in the student's affective domain should concern educators. They recommended much more research aimed at enhancing self-image and motivation of weak students.

Since a conflict exists between perceptions of school personnel and findings of some researchers regarding the practice of ability grouping, actions should be taken to put the debate "to rest." Society needs to be informed if the

school systems are harming the affective domain of any of this nation's children. Based upon the premise set forth by some researchers that ability grouping may be harmful to the self-concepts of some students, this research was "launched."

Limitations of the Study

It appears to be a complex task to assess children's self-concept; consequently, the Piers-Harris Children's Self-Concept Scale should not be used simplistically or in isolation. It is intended solely as a screening instrument. Methods such as clinical interviews and observations of the child should be used to supplement, corroborate, and investigate the scale results (Piers, 1984).

Indicated in the Piers-Harris Manual (Piers, 1984), the specific limitations of the scale are these:

1. The scores are subject to both conscious and unconscious distortions, usually in the direction of more socially desirable responses.

2. The original norms are based on data from one Pennsylvania school district.

3. The test user should not place too much interpretative value on any of the individual responses; they should not be interpreted out of context.

4. Self-concept, as measured by this instrument, appears to be relatively stable; it is also affected by a child's reference group; that is, his/her classmates and teachers.

5. Users of this instrument should consider cultural differences in personality traits and attitudes toward self-disclosure.

A number of limitations existed at the time that the self-concept scale was administered. These limitations are listed as follows:

1. Even though the teachers had been instructed to do no discussion of the scale with students, there could be no positive assurance that this did not occur. A mind-set may have been established before the arrival of the tester.

2. Students' answers may have been influenced by the belief that the teacher might see their responses. Or maybe, she/he might look at their booklets as the teacher moved up and down aisles.

3. Remaining in the classroom setting for the testing could have positively or negatively affected answers, especially if a child had had a positive or negative experience to occur within that classroom.

4. Some children may have viewed the questions as a violation of their privacy. Thus, inaccurate answers may have been given. Perhaps, students chose not to answer at all.

5. Socially acceptable answers or "faking" may have occurred. Some students may have wished to please the tester or make a good impression.

6. A testee could have found terms to be ambiguous. Prior to testing, the decision was made that definitions would not be given.

7. Finally, if a student had entered into the school system six weeks after the beginning of school, he/she was omitted from the study. This decision was based on the premise that the student may have been under a different type educational treatment than what he/she was currently experiencing.

Definition of Terms

The following terms are defined according to their application in this study. They are as follows:

A heterogeneous group is a group of students formed for the purpose of instruction either without regard for academic ability levels or by purposely including pupils of widely dissimilar ability levels in the same group. Such a group has a relatively wide range of academic ability.

A homogeneous group of students is formed for the purpose of instruction by deliberately taking into account the academic ability levels of students with an attempt to narrow the range of such abilities within the class group as much as possible. Such a group has a relatively narrow range of academic ability.

Acceptance of self is the attitude an individual holds about himself as he perceives himself/herself to be. This attitude can be positive, negative, or neutral.

The academic self-concept is the manner in which a student perceives himself to be seen by his/her teachers. This is the "looking-glass-self" or "as others see me" (Cooley, 1964, p.152). It is the result of the influences of significant others--in this case, the child's teachers.

Self-concept is the way a person views himself/herself. It is what a person believes about himself/herself.

Global self-concept refers to a person's self-perceptions which are formed through the interactions of the individual with the environment during childhood and by the attitudes and behaviors of others. From these perceptions develop self-evaluative attitudes and feelings which help to motivate behavior.

The Joplin Plan involves ability grouping across grade levels for reading only.

Hypothesis Statement

This project will focus on heterogeneous and homogeneous grouping procedures as they relate to self-concept. The question this study was designed to answer was this: Would any discernable differences in students' global self-concepts exist when those who were heterogeneously grouped were compared with those who were grouped homogeneously?
The hypothesis of this study is as follows: No significant difference will be found in the global self-concept when hetereogeneously grouped seventh-grade students are compared with homogeneously grouped seventh-grade students.

CHAPTER II

REVIEW OF THE RELATED LITERATURE

The review of literature presented in this chapter will be treated in five parts. Theoretical constructs of the term "self-concept" petinent to this research will be discussed in the first section. Secondly, the history of ability grouping is discussed. Thirdly, arguments in favor of ability grouping are presented. Fourthly, a discussion of arguments against ability grouping is given. Finally, actions to bring about its abolishment are presented.

Theoretical Constructs of Self-Concept

Since a variety of theoretical positions on the meaning of self-concept exists, conceptions of the self system are often vague and sometimes contradictory. Nonetheless, it seems "that most theories are concerned with individual self evaluation and the manner in which self appraisal motivates and directs behavior" (Burns, 1979, p. 28).

Burns (1979) stated that the term self-concept is only of twentieth century origin. Most pre-twentieth century discussion of self was embedded in a morass of philosophy and religious dogma, with self regarded as some non-physical

incumbent of physical body. Self was equated with such metaphysical concepts as "soul," "will," and "spirit" (Burns, 1979). Burns stated that the beginning of the study in the United States owes much to the psychologist William James in 1890. Burns said that James categorized two aspects of the global self. According to Burns, James considered the global self as simultaneously "Me" and "I." The Me is formed by looking at oneself through the eyes of others. The I is the self as experienced from inside. The I is a process, the self in action--feeling, thinking, imagining, planning, listening, and watching. The belief existed that the I came before the Me (Understanding Psychology, 1974). Self-concept in phenomenological theory appeared to be anchored in conscious awareness and subject experience (Burns, 1979).

Cooley (1964) first suggested the importance of subjectively interpreted feedback from others as a main source of data about the self. He introduced the theory of the 'looking-glass-self' (p. 184). Cooley reasoned that one's self-concept is significantly influenced by what the individual believes others think of him/her. The looking glass reflected the imagined evaluations of others about a person.

Freud (1946) implied a concept of self existed in his work with his id, ego, and superego; however, the self construct never became sufficiently explicit. Freud's ego is very similar to the global self; but, the idea was that the ego had roots in unconscious dynamics. This unconscious

determiner of behavior was an element to be reckoned with for Freud.

Maslow's (1954) contribution to the development of self-concept theories emphasized the master drive of self actualization within a theory of human motivation. The self actualization drive was there to be unfolded in a benign environment by active efforts of the person. Maslow assumed that each person has five basic needs which are arranged in hierarchical order from the most potent (physiological needs) to the least potent (self-actualization needs). When the needs that have the greatest potency and priority are satisfied, the next need in the hierarchy emerges and presses for satisfaction.

The present state and formulation of self-concept theory owes much to the work of Carl Rogers. He developed a phenomenological theory of behavior and of counseling techniques with the self-concept as their core (Rogers, 1951).

These are the basic premises of the phenomenological approach as devised by Rogers:

1. Behavior is the product of one's perceptions.

2. These perceptions are phenomenological rather than real.

3. Perceptions have to be related to the existing organization of the field; the pivotal point is the self-concept.

4. The self-concept is both a percept and a concept round which gather values introjected from the cultural pattern.

5. Behavior is then regulated by the self-concept.

6. The self-concept is relatively consistent through time and situation, and produces relatively consistent behavior patterns.

7. Defense strategies are utilized to prevent incongruities occurring between experience and cognized self-concept.

8. There is one basic drive--self actualization.

Robert Leahy (1985) cited James in 1890, Mead in 1934, Allport in 1937, and Maslow in 1954 in recognizing the "importance of the self-image as a major determinant of human behavior" (p. 1). Leahy (1985) suggested that the "self" is a concept that the individual constructs or makes on his own; however, this self judgment may stem from what the individual perceives that other people think about him/her. Alamshahi (1985) referred to Mead in 1934 in stating that "the self is formed through the process of organizing psychological experiences" (p. 4). These experiences are gained from an individual's environment. They come from important people in a person's life such as parents and teachers (Alamshahi, 1985).

Down through the relatively short period of psychological history, the inner core of personality has been referred to as the "self" by William James, the "ego" by

Freud, the "self-system" by Sullivan, and the "proprium" by Allport (Strang, 1957, p. 68). Gordon Allport has been given credit as being the first to give the term "inner-self" respectability (Stagner, 1961, p. 182). Raimy's landmark study occurred in 1943 when he became the first to devise a method for measuring changes in the self-concept as a result of successful counseling (Raimy, 1950). Since that time, the self-concept has become a popular field of investigation (Dyson, 1965).

From the literature, it appeared that theorists attributed to self-concept a major role in the development of self-perception and behavior motivation. For several decades, debates concerning the effects of ability grouping on the mental health of this nation's children has raged. Presently, the controversy has not been resolved.

History of Ability Grouping

Historically, the origin of ability grouping began during the last century. Its roots may be traced to the St. Louis practice, introduced in 1867 by W. T. Harris, of rapidly promoting groups of bright students through the elementary grades (Riccio, 1985). The selection of groups of bright students was determined by teachers on the basis of achievement (Goldberg, Passow, & Justman, 1966). A few years later, Elizabeth, New Jersey, adopted a similar plan. Classes of bright students were formed from each of the elementary grades and moved through the program as rapidly as

possible. In 1891, the Cambridge, Massachusetts, plan came into operation. Under this plan, students were divided into groups; the brightest were allowed to complete grades four through nine in four years, while the slowest were permitted to take seven or eight (Goldberg, Passow, & Justman, 1966). At the turn of the century, the Santa Barbara Concentric Plan organized three grade levels (A, B, and C) to master skills with varying amounts of work required, according to students' abilities. This model became known as ability grouping or tracking (Riccio, 1985).

These plans provided the foundation for the development of other plans. Although studies and discussions about ability grouping began in the 1920s, its merits continue to be debated. According to Goldberg, Passow, & Justman (1966), in the search for research findings, the results were generally inconclusive.

Jeanie Oakes (1986) stated that ability grouping developed as a response to a complex series of events--immigration from southern and eastern Europe, cities of rapid expansion and deterioration, factories in the cities, and the decline of home-based manufacturing.

It seems that society looked to the schools for salvation. Oakes' belief was that the free public school was seen as a solution to an array of problems: "socializing new immigrants, providing an avenue for upward mobility, training workers for the factories, and providing proper supervision for footloose urban youth" (Oakes, 1986). That solution

provided a differentiated curriculum to accomodate the needs of the immigrants and to fullfill the more traditional function of providing preparation for upper class students. The solution for schools was tracking and ability grouping.

Arguments for Ability Grouping

Ability grouping is a method of trying to improve the instructional setting for selected students. It is a match between the student and the instructional environment. It is a way of attempting to provide for and accomodate individual differences (Nevi, 1987).

Two common forms of ability grouping are (1) ability grouped class assignment--children are assigned to self-contained classes based on homogeneity of ability or achievement--(2) within class ability grouping--children are assigned to smaller groups within classrooms based on ability (Dawson, 1987). Haderman (1976) referred to ability grouping, streaming, tracking, homogeneous grouping, and phasing as synonymous terms. Since students are brought together as a result of a similarity in achievement, this writer will refer to the practice as ability grouping.

Limits Students' Diversity

From their findings, Trimble and Sinclair (1987) stated that the rationale for this practice centers on assumptions about the learning process. First, students are considered to differ so greatly in their academic ability and capability

that widely varied educational experiences are needed. Among the arguments are that these educational experiences require students to be separated into groups for effective learning to take place. Second, classes are seen as more manageable when students are homogeneously grouped. Oakes (1985) commented that it was argued that teachers can more readily adapt the content of the instruction to a group when the range of abilities in the classroom is reduced.

Every teacher experiences diversity in the classroom; this seems to be reality. Pinero in 1985 commented that where there is diversity, some form of grouping seems unavoidable. Grouping may be beneficial for the higher ability students in lower socioeconomic settings where academic expectations may be generally low. Pinero cautioned that groups should be organized in a variety of ways with academic ability being only one of those ways. Also, groups do not have to be forever; children do not need to be stamped with a particular expectation for a long time. The danger is that such expectations may be self-fulfilling.

Greenbaum (1990) suggested that it may be dangerous to speak in favor of ability grouping. She stated that "we who do so are accused of a variety of sins, from ignorance of research to the subversion of egalitarian ideals" (p. 68). She believed ability grouping will not be banned in public

schools until some innovations to deal with individual diversities of ability are created. Greenbaum (1990) commented that all children are not equal and that we all are better at doing some things than we are others. She said that ability grouping is necessary for individualization in classrooms, especially when so many classrooms have over thirty students. In addition, she stressed that with mixed ability students she as a teacher found herself teaching to one ability level. Whichever group she taught to (high, middle, or low), the other groups were "shortchanged."

Greenbaum cited Oakes in 1986 for admitting "that tracking was necessary to compensate for the lack of individualization found in classrooms with teacher-pupil ratios of more than fifteen to one" (p. 69). The writer suggested that ability grouping has been successfully eliminated only in schools where the class numbers are about twelve students per teacher. Greenbaum reflected that if ability grouping is to be eliminated, the school policy makers need to get to the cause of the problem. She stated that when class sizes are lowered to fifteen or fewer students, ability grouping can vanish.

Mentally Favorable

Dawson (1987) stated that educators widely accept the idea that students learn better when grouped with students considered academically similar. In a survey conducted by Wilson and Schmits (1978), 77 out of 100 teachers believed

that a better spirit of cooperation existed among students in homogeneous groups. Of the 100 teachers, 77 felt that students put forth more effort when ability grouping occurred. Seventy-four of the teachers did not find students in low groups to be discouraged.

Carl Rogers (1942) studied the mental health of children in three elementary schools. After studying the adjustment of 1,524 students in three Columbus, Ohio schools, Rogers concluded:

> The child who is most like his group is least likely to present mental-health problems. One of the strongest arguments for grouping together children who are similar in age, mentality, and achievement is that any child who deviates finds it much more difficult to make the necessary adjustments. (pp. 76-77)

Stagner (1961) concluded that grouping children of similar ability together may avoid undue pressure. He wrote that "children of inferior mental ability make much better school adjustments when placed in groups separate from superior children, so that the constant strain of unfair competition is removed" (p. 170).

Effects on Self-Concept

A major concern expressed in the literature about ability grouping was its effects on children's self-concept.

Some researchers found no deleterious results from the practice.

Ernest Dyson (1967) studied the effects of grouping on the self-concepts of both a heterogeneously grouped population and a homogeneously grouped population. With both grouping procedures, Dyson found that high achievers had more positive academic self-concepts than low achievers. He found no other significant differences. He concluded grouping practices did not affect global or academic self-concept, but success in school did affect the academic self-concept.

Borg (1966) concluded from his study that ability grouping is no more likely to develop inferiority feelings in students at any ability level than is random grouping. Borg stated that the method of grouping probably is not a significant factor in the development of self-concept among children.

The Research Information Service (1982) found that ability grouping was not harmful to students. Ability grouping appeared to have little significant effect on learning outcomes, student attitudes toward subject matter and school, and self-concept. They stated that the effects of grouping on self-concept appeared to be positive.

In a large scale study of young white men in U.S. high schools, Bachman and O'Malley (1986) found that having classmates with relatively higher abilities did slightly lower one's self-esteem and self-concepts of abilities. However, the effects were weak and did not influence

educational attainments beyond the high school years. According to Bachman and O'Malley, this indicated that students did not estimate their abilities primarily by comparing themselves with fellow students. It appeared that actual ability itself seemed to be the primary determinant of self-concepts of ability; it was more important than grades or social comparisons. Their study found that it was the actual abilities of students, not their self-concepts of ability, that made the difference in academic success.

Effects on Achievement

Interest in students' achievement gains in the various ability groups brought about inquiries. Some investigators conducted research to determine the effects of ability grouping on student achievement. Meta-analyses on ability grouping in elementary (Kulik & Kulik, 1984) and in secondary schools (Kulik & Kulik, 1982) claimed small positive achievement effects of between-class ability grouping, with high achievers gaining the most from the practice.

In the most recent review, Kulik (1985) found 85 studies about evenly divided between elementary and secondary school studies. Seventy-eight of those studies measured achievement outcomes. Kulik found that the average achievement effect size was 0.15. In the 78 studies, the average effect of homogeneous grouping was to raise examination scores by 0.15 standard deviations. Kulik concluded this effect size was

not great enough to be considered support for homogeneous grouping.

Kulik went on to conduct further meta-analyses. She found that grouping programs designed for gifted and talented students produced the strongest, most positive effect. The effect size of homogeneous grouping raised examination scores by 0.33 standard deviations, equivalent to about three months' gain on a grade equivalent scale. Studies which placed slow learners in remedial programs had an effect size of 0.14 standard deviations, an insignificant amount. This was equivalent to slightly over a month on a grade equivalent scale.

The third kind of program Kulik termed "XYZ" programs because the common ability grouping practice is to divide students into three groups resulting in high-, average-, and low-ability classes. Two-thirds of the 84 studies examined fell into the "XYZ" category. The scores of students in the high-ability classes were raised by 0.12 standard deviations. Those of the average-ability group were raised by 0.04 standard deviations. The scores of the low-ability classes remained stable.

While Kulik and Kulik's work may not show strong support for ability grouping for the average and low ability groups, it did not demonstrate negative consequences on their achievement levels. There appeared to be more merit demonstrated for grouping for the high-ability students.

Some support for other methods of ability grouping did emerge from Slavin's (1987) study. Slavin reviewed research on the effects of between-class and within-class ability grouping on the achievement of elementary school students. He concluded that the evidence did not support the assignment of students to self-contained classes. Research supported the Joplin plan, between-class ability grouping for reading. He found within-class ability grouping for mathematics to be effective. Slavin concluded that ability grouping in elementary schools is most effective when students are grouped for one or two subjects.

Achievement and Self-Concept

The relationship of achievement and the self-concept concerned researchers. Investigators probed to answer the following question. Is a student's performance in the educational system related to the concept he/she has of himself/herself.

Borg (1966) studied the consequences of two grouping systems. One involved ability grouping with the curriculum differentiated by speeding or slowing the presentation of materials and the other consisting of random grouping with curriculum enrichment. Participating in the study were two adjacent school districts. The first year over 2,500 students from grades 4, 6, 7, and 9 were selected; the population increased to over 4,000 the second year.

Borg found that the grouping pattern had no consistent general effects on achievement at any grade level. Finding no consistent differences, he concluded that ability and random grouping had no differential effect on the aspiration level or the value achievement.

Abadzi (1985) did a study to determine the effects of ability grouping on the academic achievement and self-concept of 284 high-ability and 383 regular ability students in grades 4 through 6 in a large Texas school district. Although the students had taken the California Achievement Test in grade 2, ability grouping decisions were made on the basis of the Iowa Tests of Basic Skills (ITBS) test scores at the end of grade 3. Again, they were given the ITBS in grades 4 through 6. Students were also given a shortened version of the Coopersmith Self-Esteem Inventory one month after the beginning of grade 4, one month following ability grouping, one month before the end of grade 4, and one month before the end of grade 5 (Abadzi, 1985). The inventory was not administered in grade 6.

The ITBS scores of all students showed a downward trend through 5 years of school, but the high-ability student scores declined more than the scores of regular students. Abadzi (1985) suggested that the high ability students' drop may be due to a reduced achievement motivation. In contrast, the high ability students' self-esteem scores as measured by the Coopersmith Self-Esteem Inventory were rising at the same time that achievement scores reflected from the ITBS were

falling. In the fifth grade, the relative stability of regular student self-esteem scores was accompanied by stable achievement scores based upon ITBS reports. According to Abadzi (1985), ability grouping did not alter the achievement performance of the highest and lowest students. Those most influenced were those who had been near the cutoff point, the 77th percentile of the ITBS. Abadzi (1985) related that even the magnitude of that effect gradually diminished. Abadzi (1985) suggested that even though these results offer little support for ability grouping, they do not show the practice to be "as deleterious as has been reported elsewhere" (p. 40).

William Holly (1987) commented that children with high self-esteem usually do better in school. He posed this question: Is self-esteem the cause of their competence? Holly answered no; high self-esteem is a consequence of having experienced meaningful successes. He thought that self-confidence alone provides no motive to achieve; the motive for any behavior lies in its perceived value. Consequently, students who feel competent are not likely to make an outstanding effort if they regard their schoolwork as meaningless and without value. Achievement is not likely to raise their self-esteem much if they do not recognize the value of the achievement. Holly reached the conclusion that the most reliable route to a healthy sense of self-esteem is for students to forget about self-esteem as a goal in itself. Students should concentrate on being the best that they can

be in the pursuit of those things most worth doing. Finally, Holly commented that self-esteem comes from hard work and personal effort. He stressed the importance of having good values, having a realistic self-image, being responsible, and accepting the worth and rights of others.

Arguments Against Ability Grouping

An abundance of the literature that addressed the issues of schooling cited severe problems with the practice of assigning students to classes based on academic abilities (Boyer, 1983; Goodlad, 1984; Kerble, 1988). Some researchers stated that society should reconsider the idea that individual learning differences call for different curriculums for students. They claimed that the structure of school curriculums should be redesigned, and ability grouping should be abolished (Goodlad & Oakes, 1988).

Effects of Grouping on the Self-Concept

Arthur Jersild (1952) studied self reports of young people from the fourth-grade through college seniors. From the 2,893 respondants, he concluded that many young people are not engaged in learning in which there is self involvement. He stated that schools are not contributing to the psychological growth of all our children. A negative effect on the psychological growth of many youngsters can be attributed to school. Students find school filled with failure and are reminded of their own limitations.

Dyson (1965), in an extensive search of the literature, located only one investigation since the time of Raimy's landmark study that dealt directly with the problem of the effect of grouping on the self-concept. Mann (1960) surveyed 102 students in four fifth-grade classes. These students had been grouped since first-grade by ability. A group questionnaire was used to obtain information as to how children see themselves in ability grouping. Section one was referred to as the highest group; section two was the second high; three was the second low; and section four was the lowest group. Section one and two gave no negative responses. Section three had six negative answers. Section four had nothing but negative responses. Mann concluded that because of the negative effects of grouping on the self-concepts of the lower ability children, ability grouping should be abandoned.

Mauree Applegate (1988) emphasized some of our present practices in education are disintegrating the self-concepts of our youth. She stated that a person needs to become whole within the individual. Each person has many selves. Until each segment of self is pulling in the same direction as the other segments, a person cannot attain any sort of inner health. To achieve this inner health, we must strive toward wholeness. Learning to find and to express the self is a lifetime job both for the individual and for adults who guide the training of that individual. Applegate believed that we are stifling the very life of our democracy.

She stated that she is concerned with what homogeneous grouping is doing to a child's self. Through homogeneous grouping, children find their capacities and lose their "stretch." Applegate stressed that our children need to discover their own ceilings and extend them. School should approximate life. Too many children are bumping their heads on their ceilings who, if they did not know how they rated, might find the sky. She urged educators to help our children grow "wings" because no contribution can be made to a society by defeated people.

A concern about ability grouping expressed by Harp (1989) is its effect on the self-concepts of children, especially those placed in lower groups. Harp stated that research results in this area are not consistent enough to yield firm conclusions, but he suggested that ability grouping has negative effects on the self-concepts of children in lower groups. He referred to the conclusion drawn by Weinstein in 1976 that while grouping may result in more positive self images for high achievers, the simultaneous effect on lower group members may be a less positive self concept.

Tobias (1989) expressed opposition to the sorting of students by intelligence and ability as they proceed through school. She wrote "all this is a far cry from the vision of schooling that America's founding educators had in mind" (p. 55). She continued by stating that Horace Mann, the father of American public education, "thought public education would

be 'the great equalizer' in a nation of immigrants" (p. 56). Tobias believed that children are learning that they are not equal to others. They learn if they are "smart" or "dumb" (p. 57), and this affects their self-concept.

Braddock (1990) condemned ability grouping. He stated that the practice may lower students' self-concept and bring about apathy in students. He referred especially to the students in the low-ability groups when suggesting the negative impact that some students may experience. Braddock suggested that the students in the low tracks may be stigmatized by teachers and peers as inferior learners. As a result, these students develop poor self-esteem and lack confidence in their ability to learn.

Daniel Gursky (1990) maintained that criticisms are shared by a growing number of people who denounce tracking for its damaging effects on students unfortunate enough to be placed in the low tracks. The critics maintained that tracking permanently condemns many students (many of whom are minorities) to an inferior education. Gursky suggested that tracking "seals a child's fate" (p. 44). Perhaps, the effect may be for life.

Self-Concept and Student Attitudes

Supporters of ability grouping contended that the self-concept of low-ability learners suffers when they compete in high-ability groups; consequently, ability grouping should improve the self-concepts of low-ability

learners. Manning and Lucking (1990) stated that research studies do not support this supposition; they agreed with Dawson's recommendation to abolish ability grouping in 1987. They referred to research by Wilson and Schmits in 1978 that suggested that desirable attitudes and self-concepts of low-ability children may be seriously impaired by homogeneous grouping and that the self concept of high-ability students may be artificially inflated. They supported Riccio who in 1985 wrote that placement in a high-ability group may enhance the self-concept of the brighter student; however, evidence suggested that ability grouping may affect adversely the attitudes, achievement, and opportunities of students in lower-ability groups. In addition, they supported Slavin's conclusion in 1988 that assigning students to classes on the basis of ability may have a stigmatizing effect that evokes in students low expectations for both achievement and behavior. Finally, Manning and Lucking commented on the importance of the learner's attitude. They referred to Brustein and Olbrick who in 1985 found that some learners develop helpless strategies when facing new events if they sense failure. Manning and Lucking suggested that the learner's mindset of self-concept takes on renewed significance in viewing potential success.

Berliner (1985) suggested that ability grouping lessens dignity and self-worth in all but the highest groups. He suggests that elitism and arrogance may develop among those at the top. He reflected that contemporary researchers are

now agreeing that ability grouping is detrimental to low ability students.

Brodbelt (1991) agreed with Noland and Taylor in 1986 who commented that ability grouping may have adverse effects on students' self-concepts. He agreed with Goodlad's statement in 1984 that suggested that students in low-level groups demonstrate lower self-esteem, have more behavior problems, and have a higher dropout rate. Brodbelt (1991) implied that if a child is identified as inferior, he/she begins to act inferior.

Social Comparisons and Self-Concept

Barbara Byrne (1988) stated that social comparison plays a vital role in self-concept development of students. Schools that practice ability grouping are providing a "fertile environment for the operation of social comparison processes" (p. 46). Byrne believed that this is especially the case at the high school level where students are segregated into "distinct within-school societies" (p. 46).

Byrne (1988) suggested that students become stereotyped by their track placement. Byrne cited McKay in 1984 and Rosenbaum in 1976 in stating that high-ability students have been described by low-ability peers as "snobs," "brains," "brown-nosers," "conformists," and "more intelligent" (p. 50). She referred to Finley in 1984 when she related that teachers have described these same students as "enthusiastic," "motivated," "bright," and "fun to teach"

(p. 50). In contrast, low-ability students have been referred to as "lazy," "goof-offs," "not caring about school," "slow learners," and "dumb" by high-ability students. She cited Addy, Henderson, and Knox in 1980 and Finley in 1984 in stating that some teachers have used such terms as "lazy," "unresponsive," "unmotivated," "always getting into trouble," and "frustrating to teach" (pp. 51-52). Byrne suggested that people use others in their environment in forming self evaluations. For young people who spend most of their time in school, it appeared that teachers and peers would be important in the formation of their self-concepts.

Bryne (1988) cited Kulik and Kulik in 1982 when she related that the advantages and disadvantages of ability grouping have been debated for over a century. It appears that attention has changed from a positive focus on ability grouping in the 1950s to a negative focus in the 1980s. Although these concerns resulted in investigations into track differences in self-concept, the findings were inconsistent and indeterminate.

Byrne (1988) reported that she found significant differences in academic, English, and mathematics self-concepts between low-ability students and high-ability students. She believed that the lower-level students measure themselves against those with higher ability. As a result, they perceive themselves as less capable. In contrast, Byrne found in this same study that no mean ability differences

existed in general self-concept between the two groups. Despite their negative academic experiences and low self-concepts in specific subject areas, the low-ability group had overall self-concepts "on a par with that of their high-track peers" (p. 62).

Samuel Brodbelt (1991) considered tracking of students synonymous with labeling. He suggested that labeling has been used as a way of identification and of stereotyping persons in certain groups. "Power groups use labeling to stigmatize and paralyze the powerless groups" (p. 385), according to Brodbelt (1991). The labeled person begins to believe that he/she deserves unequal treatment.

There are several reasons used for labeling suggested by Brodbelt (1991). School systems use tracking for minority children; children with behavior problems, learning disabilities, physical and emotional problems; and children who do not express concern for the school environment. Brodbelt (1991) claimed that labels that are condescending may be harmful to a child's self-concept. He suggested that they will not succeed in the school situation, so they often drop out of school. This seems to be the natural consequence of labeling in schools, according to Brodbelt (1991), who referred to Goodlad and Oakes in 1988 when he commented on the social stigma attached to being in a low-level group.

Learning Environment and Self-Concept

Peltier (1991) stated that teachers believe that ability grouping overcomes the problems of individual differences and makes classes more manageable. He implied that little proof exists to suggest that average- and low-ability children have benefitted from this practice. Peltier said that they spend less time learning, are being taught lower-level knowledge and skills, and have contact with fewer types of instructional materials. Peltier (1991) suggested that teachers prefer to teach high- and average-ability students, who are more self-disciplined. He reflected that teachers do not appear to want to teach the low-ability group.

Berliner (1985) found in his research that teachers made fewer demands on low track students and apply less exacting standards to themselves as teachers of low students. Although teachers complained more about the behavior of low track students, they did not discipline them as much as they disciplined high track students. He continued that teachers appeared to be more serious about teaching high track students; they offered their high track students many concepts to learn and a variety of ways to learn them. In contrast, they taught their low track students basic skills with lots of drill.

Harp in 1989 concluded that ability grouping provided fewer opportunities for learning because the more groups a teacher has the fewer contacts there can be between teacher

and learner. Inequality in instructional outcomes existed as a result of grouping. Students assigned to high groups were taught more than students assigned to low groups.

In addition, Harp added differences existed in the ways teachers interacted with low and high ability groups. Low groups spent more time on decoding tasks and oral reading while high ability groups were focused on unlocking meaning and silent reading. Teachers interrupted the poor readers more than they did good readers who made the same oral miscues. In other words, teachers treated children in low ability groups differently from those in high ability groups.

Manning and Lucking (1990) expressed concern that teacher behaviors were different toward the different groups. They indicated that teachers interacted differently with students in the various ability groups. They suggested that lower-ability students spent more time on decoding tasks while higher ability students worked on word meaning. They stated that lower-ability students participated in oral reading activities while higher-ability groups read silently. They said that teachers' comments with higher-ability learners became more positive over the school year, while teachers progressively described lower-ability students in more derogatory terms. They referred to Grant and Rotenberg in 1986 who found several advantages of being placed in higher ability groups: (1) Students work in environments more conducive to academic skills. (2) Students have more

opportunities to demonstrate competence. (3) Students practice more autonomous, self-disciplined modes of learning.

An observation made by Berliner (1985) was the behavior differences between low ability and high ability students. Low ability students challenge their teachers, obstruct academic activity, and misuse educational resources more often than high ability children do. While doing independent seatwork, low ability children tended to discuss social, not academic, events; however, teachers and students in high ability classrooms pursued more academic goals and standards. Berliner also found that low track students were most likely to have been assigned the least able teachers. They were less likely to be praised; they were more likley to be criticized.

Berliner stated that ability grouping apparently increases diversity, rather than reduces it. He said that the price paid by the low ability students is too great, but such is life when a student wears the low ability label.

According to Veldman and Sanford (1984), an inferior classroom climate existed for lower-ability students. They said that these students may have lower educational aspirations and more limited vocational choices. Their self-concepts and attitudes toward themselves do not appear to be enhanced. The classroom atmosphere does not seem to be as conducive to learning as that in the high-ability classes. Veldman and Sanford suggested that not as much classroom time is spent on class assigned tasks.

Oakes (1985) suggested that student attitudes of the low-ability level are reduced. She stated that tracking may lead low-ability students to misbehave and eventually drop out of school.

Another investigator expressed concern about the high school dropout rate. Tobias (1989) stated that the emphasis placed upon standardized testing by schools could be a contributing factor.

She cited Oakes in 1985 in suggesting that the basic premise of using standardized tests to determine children's potential is incorrect. Such tests reflect differences, not similarities. The test results may cause individuals to be more different than they really are. Consequently, some children receive a high-quality education while others receive one that is "watered down" (p. 57). Tobias said the end result is that students begin to quit school. She stated that 25% of the teenagers in Americas are dropouts. She suggested that these students had negative self-concepts caused by ability grouping procedures that sent a message to them: they were bad students who were unteachable.

Teachers and Self-Concept

A primary goal of education should be to help children develop positive feelings about themselves, to be able to identify with other children, and to be accepted by others. Teachers should work with students to enhance their self-concepts (Alamshahi, 1985). Alamshahi stated that

"teachers play an important role in shaping children's self-concept because children spend most of their waking hours in the presence of teachers" (p. 4). He said that "negative self-concepts may be directly related to negative attitudes. If students' attitudes are negative, then it follows that an undesirable situation exists" (p. 4).

Alamshahi suggested that some educators may have neglected the development of healthy self-concepts in students. He indicated that since teachers are important as "significant others" (p. 4), they do affect students' self-concepts. He commented that "if psychological experiences gained in school help children form concepts, beliefs, and perceptions that conflict with those previously formed at home, the role of the parents as significant others may be weakened" (p. 40). Alamshahi stressed the importance of teachers in the lives of students. If teachers are untrained in techniques for enhancing students' self-concepts, these techniques should be made available to them. According to him, one of the primary goals of education should be to help students develop positive self-concepts about themselves.

Effects on Achievement

Research suggested that ability grouping is ineffective in improving achievement (Kulik, 1985). It may result in a quality of education subordinate to that provided in

heterogeneous classrooms. Trimble and Sinclair (1987) stated that they found instructional practices to be inferior.

Manning and Lucking (1990) questioned why the practice of grouping students by intellectual ability or academic achievement continues today. They indicated that T. L. Purdom's research in 1929 documented evidence that ability grouping does not improve academic achievement and that teachers based their grouping decisions on personal beliefs and impressions rather than research evidence. Yet, they said Purdom's warnings have gone unheeded.

Manning and Lucking stated that there is evidence that ability grouping does not enhance students achievement in the elementary school. They cited the research conducted by Slavin (1987) and Dawson (1987). They referred to Wilson and Schmits' supposition in 1978 that possible gains among high achievers may result from different teaching techniques and materials, modifications of educational objectives, and curriculum reorganization rather than ability grouping. In addition, these writers referred to Dawson's evidence in 1987 that suggested that ability grouping may actually reduce achievement levels among average- and low-ability learners.

Almost without exception, reviews from the 1920s to the present have came to the same general conclusion: between-class ability grouping has few if any benefits for students achievement (Slavin, 1987). Slavin (1987) conducted a meta-analysis of ability grouping research. Breaking down the data by type of ability grouping, he divided 54 studies

at the elementary school level into five kinds of grouping arrangements:

1. Ability grouped class assignment.
2. Regrouping for reading and mathematics.
3. Joplin and nongraded plans.
4. Comprehensive nongraded plans.
5. Within-class ability grouping.

After establishing the criteria for inclusion in his study, Slavin used effect size to quantify results and allow comparisons across studies.

Slavin reported that the median effect size for ability grouped classroom assignment was zero, and that most of the effect sizes clustered around this value. He concluded that from his research, evident was unequivocal in its failure to support classroom ability grouping as a method to increase student achievement.

Bill Harp (1989) suggested that the most comprehensive analysis of the data on ability grouping was done by Slavin who reviewed old research and examined new research to study the effects of grouping practices. Harp reiterated Slavin's conclusions that ability grouping does not enhance student achievement in the elementary school. However, the evidence indicated that the Joplin plan is effective in terms of pupil achievement in reading.

A critic of ability grouping cited its detrimental effects on low-tracked students. Rosenbaum in 1976 referred to a study in which he found restricted opportunities

available to students in lower tracks. Using the Otis-Lennon IQ scores as one of its criteria, a school system placed students in high-, middle-, and low-tracks. Rosenbaum expressed concern that in his observations IQ scores begin to become stable around the age of nine. Yet for the high-school students in the study, there was a downward trend in the low-track IQ scores. Rosenbaum suggested that a closer look at the placement process seems to be needed when instability in IQ scores exists.

Beckerman and Good (1981) studied the ratio of high- to low-ability students with individual classrooms. This was done to determine what effect a preponderence of either high- or low-ability students had on achievement in 81 third- and fourth-grade math classes in a large metropolitan school district. The authors stated that both high- and low-ability students appeared to do better in classes with a preponderance of high-ability students, but they also stated that their data were insufficient to explain this occurrence.

According to Sayer (1985), research demonstrated that students achieve as well in heterogeneous groups and are not adversely affected by this experience. However, Sayer expressed concern with the large number of students in groups with whom teachers must work. He indicated that this is the main weakness of school systems. He stressed that doctors do not perform surgery with patients in groups. Dentists perform dental treatment on an individual basis. Yet, teachers must work generally with 25 to 35 students in a

group. The physical inability of teachers to avoid teaching to the middle-group for too much of the time does exist. Teacher energies often go into solving problems of management rather than helping students to learn. Teachers do not always have the resources to do the job properly, and sometimes, this is felt so strongly that their inner resources become paralysed. Sayer stressed that, educationally, a critical question is whether or not learning does occur in large numbers, however the students are grouped. Perhaps student education should be on an individual basis. He said that if groups must be used, the numb r should not exceed eight.

Achievement and Self-Concept

William W. Purkey (1970) stated that there is a persistent and significant relationship between the self-concept and academic achievement at each grade level and that changes in one seems to be associated with changes in the other. He related that studies seem to indicate that there is a strong reciprocal relationship between a positive self-concept and scholastic success and a negative self-concept and scholastic failure; however, the data does not provide clear-cut evidence about which comes first.

In a study conducted by Theresa Noland and Bob Taylor (1986), the findings indicated that the practice of ability grouping does not increase student achievement and does

damage student self-concept. The methodology used in this research was the meta-analysis technique.

> The major findings of the study, based on 720 measurements derived from the experimental data presented in 50 studies reported between 1967 and 1983, were that students who were ability grouped had the same cognitive outcome scores as students who were not ability grouped and had lower affective outcome scores than students who were not ability grouped. (p. 3)

The following statements were among the findings of Noland and Taylor's study in 1986. When students who were ability grouped were compared to similar students who were not ability grouped,

1. The overall outcome scores of the ability grouped students were lower.
2. The overall cognitive outcome scores for ability grouped and non-ability grouped students did not differ.
3. The overall affective outcome scores of the ability grouped students were lower.
4. The Content Area Skills outcome scores of the ability grouped students were higher.
5. The Attitude Toward Subject Matter scores of the ability grouped students were higher.
6. The Academic Self-Concept scores of the ability grouped students were lower.

7. The Self-Esteem scores of the ability grouped students were lower.
8. The affective outcome scores of the females were twice as negative as the males' scores.
9. For high and low ability students, the cognitive outcome scores of the ability grouped students were higher.
10. For average ability students, the cognitive outcome scores of the ability grouped students were lower.
11. For all ability levels, the affective outcome scores of ability grouped students were lower. (pp. 27-28)

Noland and Taylor (1986) suggested that ability grouping does not work. They stressed that, even though it is favored by most teachers and embedded in the public schools of our country, it does not improve student achievement and may have harmful negative self-concept consequences.

Task Force Findings

In an effort to clarify the effects of ability grouping in today's schools, a task force was commissioned and funded by the United States Office of Education in 1969 with Warren Findley as principal investigator and Miriam Bryan as principal associate in assembling and editing information to be gleaned from published studies and responses to questionnaires about current practices. According to them (1975), little systematic research preceded or accompanied

the adoption and substantial use of this departure in organizing classes. These investigators reported that ability grouping was introduced in the 1920s and was revived in the 1950s on the basis of overgeneralization from experience with instructing children in groups with similar learning needs. According to Findley and Bryan (1975), they undertook to synthesize the reports and some well-designed studies into an interpretation of the status and impact of ability grouping over the fifty years from 1920 to 1970.

The conclusions below were among their findings.

1. Ability grouping is widely favored by administrators and teachers.

2. In a 1962 NEA study, 87 percent of the teachers preferred teaching high-, average-ability, or heterogeneous classes. Barely 3 percent expressed preferences for teaching low-ability groups. Ten percent expressed no preferences.

3. Homogeneous grouping across the subjects of the school curriculum is impossible. If members of a group are homogeneous in one area or sub-area, they often prove to be heterogeneous in other areas. Movement from one homogeneous subject area to another is not always possible due to the school curriculum structure.

4. Socioeconomic and social class differences are increased by ability grouping and reduced by non-grouping.

5. As practiced, ability grouping produces conflicting evidence of usefulness in promoting scholastic achievement in superior groups. It produces almost uniformly unfavorable

evidence for promoting scholastic achievement in average- or low-achieving groups.

6. The effect of ability grouping on the affective development of children is to reinforce. Here, Findley and Bryan hinted at an inflated self-concept--favorable self-concepts of those assigned to high achievement groups, and reinforcement to unfavorable self-concepts in low-achievement groups is given.

7. Low self-concept operates against motivation for scholastic achievement in all individuals. This is especially the situation among those from lower socioeconomic backgrounds and minority groups.

8. Children from unfavorable socioeconomic backgrounds have a tendency to score lower on tests and to be evaluated less competent by teachers than children from middle-class homes.

9. Generally, the effect of grouping procedures is to put low achievers of all sorts together and deprive them of the stimulation of middle-class children as learning models and helpers.

10. Low achievers often include many disruptive children who have failed to acquire constructive school attitudes as well as children with low- and slow-achievement patterns.

11. Children of many minortity groups such as Black, Puerto Rican, Mexican-American, and Native American come disportionately from lower socioeconcomic backgrounds. The

source of disadvantage which leads to low grouping for some minority groups derives in part from the fact that teaching and tesing in schools are usually entirely in English, which for them is a second language.

12. The language patterns of black and white children from lower socioeconomic backgrounds often differ markedly from "standard American." The language difference often results in placement in low groups for a child.

13. Desegregated classes have greatest positive impact on school learning of socioeconomically disadvantaged students when the proportion of middle-class children in the group is higher than the number of disadvantaged children.

14. Assignment to low achievement groups carries a stigma that is often more debilitating than relatively poor achievement in heterogeneous groups.

Discrimination by Ability Grouping

Repeatedly, researchers questioned why schools continue to use ability grouping. Leading educational theorists such as Goodlad (1984) argued against the practice. Investigators (Peltier, 1991) concluded that unfavorable effects result from the practice. Some researchers (Goodlad & Oakes, 1988) referred to the practice as anti-democratic and as a type of segregation. Some investigators recommended and some groups attempted to have ability grouping abolished (Gursky, 1990; Brodbelt, 1991).

John Goodlad's "Study of Schooling" summarized his findings in A Place Called School (1984). Goodlad and his colleagues at UCLA studied in depth and nature the schooling experience in 13 communities and 38 schools throughout the country. From his research, Goodlad concluded that homogeneity is not advantageous for the brightest students and may result in significant losses for the slowest students. He referred to ability grouping as folly and hints that there should be mandatory abolition for it.

Even though grouping students is a common teaching practice, Gary Peltier (1991) emphasized several unfavorable outcomes which may result. He questioned why that it is permitted to persist. Peltier (1991) referred to Slavin in 1988 whose research study indicated that even though honors classes may help the high-ability group, the low-ability students suffer academically and emotionally.

Peltier (1991) continued by citing findings from his research:

1. Ability grouping "causes low-ability students to do less well when placed in nonmixed groups" (p. 246).

2. Ability grouping "causes a decrease in their IQ scores" (p. 246).

3. Ability grouping "is a denial of equal educational opportunity for all because it causes 'lows' to have less dignity and self-worth" (p. 246). It causes those students "to feel stigmatized" (p. 246). The lower-ability groups

feel "psychological drawbacks because they feel stereotyped as being less able" (p. 246).

4. It creates "uneven classroom opportunities" (p. 246) and "unequal access to knowledge and fewer opportunities to learn" (p. 246).

5. Peltier referred to the "low expectations that teachers have of 'lows' " (p. 246) and to the " 'low' students having fewer peer models" (p. 246).

6. He suggested "that the 'lows' limit their friends only to others of similar status, whereas high groups exhibit increasing elitism and arrogance" (p. 247).

7. Ability grouping "helps to cause a resegregation by creating racially identifiable classes" (p. 247).

Trimble and Sinclair (1987) said that a cause for alarm is the segregation of students along racial and socioeconomic lines that results from ability grouping. They stated that "minority and economically disadvantaged children are found in low tracks in unwarranted numbers" (p. 15).

Trimble and Sinclair (1987) conducted research in six Massachusetts public high schools. The sample contained 290 students and 18 teachers in high-, average-, and low-ability grouped classrooms. Their findings raised serious doubts about the continued use of ability grouping. Little evidence emerged to suggest that average- and low-ability students benefitted from this organization. Students in low- and middle-ability classes spent less time learning, were taught lower level skills and knowledge, and were exposed to fewer

types of instructional materials than the high-ability classes. The differences in content and instruction tended to be more responsive to the high-ability classes than students placed in the middle- and low-ability classes.

Their data suggested that a narrow range of activities and instructional methodologies characterized the educational experiences of all students in the study. Trimble and Sinclair believed that their findings give evidence that calls for the elimination of ability grouping.

An American educational tradition which has been around since the turn of the century was challenged according the Rachlin (1989). The Carnegie Corporation advocated the abolition of ability grouping because of its discrimination against minorities, its damaging effects to those labeled as slow, and its ineffective claims for success. Rachlin referred to ability grouping as "an obsolute way of educating in today's high-technology world" (p. 51).

Rachlin suggested that children who are channeled into a group based on standardized test scores, grades, or teacher recommendations may never escape, especially the slower students. As a result, these children do boring work sheets and filling in blanks to master the basic skills. Rachlin contended that the students get frustrated due to the teaching techniques and teacher expectation, begin to misbehave, and then just drop out.

Rachlin cited Slavin in suggesting that an ability grouped class is no better than having "a mixed class"

(p. 51). She referred to Oakes in stating that "low-ability kids tend to get a curriculum empty in terms of ideas. Skills have become gatekeepers to ideas" (p. 52). Rachlin commented that "teachers begin to see themselves as weeders, getting rid of the kids who can't make it, rather than nurturers trying to make all grow to their potential" (p. 52). Rachlin (1989) suggested that the abolition of ability grouping should occur because a child's group placement may determine the direction of the rest of his/her life.

Toepfer (1990) suggested that homogeneous grouping be added to the "graveyard of unsuccessful educational innovations" (p. 3). He commented that homogeneous grouping is not advantageous for students. He alluded to the possibility that it may not be a democratic principle. Toepfer said the practice of grouping by ability for instructional purposes is not supported by research. He suggested that students in lower groups are less likely to graduate or go on to college; teachers have lower expectations for them and may teach at too slow a pace; and grouping usually creates racially indentifiable groups. Toepfer (1990) continued with suggesting that homogeneous grouping may be one of the most "damaging school practices in existence" (p. 2). He felt that principals have a responsibility to use more heterogeneous grouping arrangements.

Goodlad and Oakes (1988) expressed concern that ability grouping may be a discriminatory practice against blacks, Hispanics, and poor students. They said that these are the students who are disproportionally present in low groups. They commented that students from the lowest groups seldom are moved to the highest groups. Consequently, with the passing of time, there seems to be no way for these children to "catch up" with the more accelerated groups. As students enter into high school, they continue the low track often moving into the vocational curriculum. Goodlad and Oakes reiterated that the minority children disportionately constitute the lower tracks. Because of such placements, these children may never be exposed to classes which teach quality literature, a second language, or algebra.

Ability grouping may become one of the central civil rights issues of the 1990's. In 1990, a protest arose in Selma, Alabama, condemning tracking or ability grouping (Brodbelt, 1991). The Quality Education for Minorities Project report referred to ability grouping as a re-creation of segregated classes. Civil rights activists condemned the overrepresentation of Blacks, Hispanics, and Native Americans in low-level remedial and vocational classses and the lack of minorities in college-prep honors classes. The Quality Education for Minorities made the elimination of tracking a significant piece of its reform agenda for schools in the United States (Gursky, 1990).

Brodbelt (1991) stated that the National Council of Teachers recognized the negative effects of tracking in 1989. It voted to abolish testing of students in preschool and grade school to determine achievement levels. He suggested that their rationale was that "testing leads to tracking, and too often a student's track becomes his/her destiny" (p. 386).

Gursky (1990) remarked that neither the NEA nor the American Federation of Teachers voiced an official position on tracking. A resolution condemning tracking came before the NEA Representative Assembly. The speculation existed that the measure would pass. Instead, the resolution was defeated. Gursky stated that a task force was appointed to investigate and prepare a final report on tracking.

Brodbelt (1991) recommended that tracking and labeling be abolished. He commented that tracking reinforces "this society's social, political, and economic stratification" (p. 387). It is "a contradiction of this nation's basic democratic philosophy of equal opportunity for everyone" (p. 387).

CHAPTER III

DESIGN OF THE STUDY

This study was designed to answer this question: Would any discernable differences in students' self-concepts exist when those who were heterogeneously grouped were compared with those who were grouped homogeneously?

Accordingly, two middle school populations were identified which appeared to have the necessary characteristics. A public middle school which used homogeneous grouping procedures was located. Since it was constituted of students from a rural-urban setting, the researcher deemed it desirable to locate a similar middle school which used the heterogeneous grouping procedure. A self-concept inventory was administered to a random sample of seventh-grade students in each of the grouping plans.

Identification of the Population to Be Studied

After the design of this study had been conceived, it was necessary to locate a school population which was grouped under the homogeneous grouping philosophy. Such situations

did not appear to be plentiful in the area of Bowling Green, Kentucky. The popularity of the heterogeneous grouping procedure contributed to the availability of such a school population.

The subjects for this study were seventh-grade students in two different but adjacent school systems in Kentucky which were located approximately twenty-five miles apart. The two systems were both located in rural-urban settings as opposed to the large metropolitan environment. The principals requested that their schools not be identified. The total population from middle schools consisted of 497 seventh-grade students. Of the 497 students, 193 constituted the total seventh-grade population from the school that grouped homogeneously. There were 304 students from the school which used heterogeneous grouping. This number constituted their total seventh-grade population.

For the purposes of this study, this researcher excluded special education and gifted classes from the selection process. The initial step in conducting the survey was to interview the guidance counselors from the school. It was found that the homogeneously grouped school had two high-achievement classes, three middle-achievement classes, and two low-achievement classes. The students in the ability grouped school were placed in high-, average-, and low-ability classes for English, spelling, reading, and math by achievement scores from the California Test of Basic Skills (CTBS) and by teacher recommendation. The school

guidance counselors, who grouped the students, also placed the students according to achievement and progress. The heterogeneously grouped school had ten heterogeneously grouped classes. A similar placement of these students did not occur; the placement resulted from a random selection printed out by a computer.

Using a table of random numbers, one high-, one average-, and one low-ability level groups were selected. The high-level group contained 28 students; the average-level group had 26; and the low-level group consisted of 18. Thus, a total of 72 students were included in the random selection from the homogeneously grouped middle school. Likewise, three heterogeneous groups were chosen. The groups were composed of 30 students, 27 students, and 22 students; a total of 79 heterogeneously grouped students were to be surveyed. The total sample population from the two schools was 151.

Instrument and Procedure

The Piers-Harris Children's Self-Concept Scale (PHCSCS) (Piers, 1984) was developed as a research instrument and as an aid to clinical and educational evaluation in applied settings. Its construction and use are based on the belief that individuals hold a relatively consistent view of themselves, which develops and stabilizes during childhood. It is based on the assumption that children will reveal important aspects of the self-image by stating whether or not

a series of statements hold true for them. It also assumes that this assessment of their self-concept relates meaningfully to other aspects of their personality and predictions of future behavior.

The instrument's development was based on a global perspective of self-concept. That is, self-concept refers to a person's self-perceptions in relation to important aspects of life. These perceptions are formed primarily through the interaction of the person with his/her environment during childhood and by the attitudes and behaviors of others. From these perceptions come self-evaluative attitudes and feelings which have important organizing functions and which also help to motivate behavior. In other words, global self-concept reflects how one feels about himself/herself as a total person.

The survey instrument "The Piers-Harris Children's Self-Concept Scale" is subtitled "The Way I Feel About Myself." It is composed of 80 items covering 6 subscales:

-Physical Appearance and Attributes

-Anxiety

-Intellectual and School Status

-Behavior

-Happiness and Satisfaction

-Popularity

Written at a third-grade reading level, the items are simple descriptive statements. By selecting a yes or no response, children indicate whether each item applies to them.

Approximately 20 minutes are required to administer the scale; however no time limits exist (Piers & Harris, 1969). An overall measure of self-concept is given by summary scores, while more detailed interpretation may be acquired through subscale scores. A profile form permits the tester to visually identify the child's strengths and weaknesses. From the Ninth Mental Measurements Yearbook (Mitchell, ed., 1985, p. 1070), Patrick J. Jeske has been quoted as saying, "...the Piers-Harris appears to be the best children's self concept measure currently available. It is highly recommended for use as a classroom screening device, as an aid to clinical assessment, and as a research tool."

Test-retest reliabilities ranged from 0.42 to 0.96 and had a mean of 0.73. Studies investigating internal consistency on the total scale produced coefficients ranging from 0.88 to 0.93. Validity studies which explored relationships between the Piers-Harris and other self-concept measures revealed coefficients from 0.32 to 0.85. An inverse relationship was shown to exist between self-concept and anxiety. Correlations ranged from -0.54 to -0.69. Constant sex differences have not appeared. A number of factorial analyses of the scale have been done. Six interpretable factors have appeared constantly (Burns, 1979; Piers, 1984; Mitchell, ed., 1985). "No general factor appears . . . the test is intended to reflect the general self-concept." (Burns, 1979) Carefully developed and widely used in the USA

(Burns, 1979), this scale is published commercially and may be purchased through the Western Psychological Services.

Scoring the Inventory

Before scoring the answers, the tester checked each booklet to see that double responses were not given or answers were not omitted. If this occurred, the items were not used in the study. One hundred forty-six out of 151 answer sheets were used in the study.

Items were scored in the direction of positive self-concept; consequently, the higher the raw score, the more positive the student's assessed self-concept. In order to score the scale, the Scoring Key had to be placed over each page of the booklet. The yes and no columns on the booklet had to be lined up with the Scoring Key prior to scoring. There were four columns to be scored. Column one included items 1 through 20; column two included items 21 through 40; column three includes items 41 through 60; and column four included items 61 through 80.

The total number of responses marked in the positive direction is the total raw score. To arrive at this score, the scorer counted the number of circled responses which showed through the windows in the Scoring Key for all 80 items. The raw score was placed in a space which was provided on the front of the booklet.

Raw scores may also be determined for each of the clusters by using the Scoring Key, but the total raw score

cannot be calculated by adding all the cluster scores. Some items are included in more than one cluster scale while some items are not included on any of the cluster scales.

The total raw score and cluster scores may be converted to percentiles, stanines, and/or T-scores to aid in the interpretation of the scale if so desired. The conversions for all raw scores are presented in the PHCSCS Manual. This researcher used raw scores for this investigation.

Limitations of the Study

On March 27, 1991, the Piers-Harris Children's Self-Concept Scale was administered to the homogeneously grouped students. On April 15, 1991, the same inventory was administered to those heterogeneously grouped. Permission slips had not been distributed to the students; however, permission had been secured from the superintendent of the homogeneously grouped school and from the principal of the heterogeneously grouped school.

The inventory was administered within the classroom setting in the reading class for each group. So as not to create a mind-set, the teachers had been instructed to give no explanation to the students as to the task that was to occur. The classroom teacher was to act only as a facilitator in handing out and collecting the papers and

booklets. He/she was not to comment in any way on the inventory.

Before the inventory was given, the tester explained to the students why they were taking the inventory, what its purpose was, and that there were no right or wrong answers. All six groups were given the same instructions: (1) No one except the surveyor will see your answers; your answers will be kept confidential. (2) Please answer the questions as honestly as you can about how you feel most of the time.

CHAPTER IV

COLLECTION AND INTERPRETATION OF DATA

The data presented in this chapter are composed of the information collected on the Piers-Harris Children's Self-Concept Inventory. Results of the study were analyzed to determine if any discernable differences existed in the global self-concepts of heterogeneously grouped students and homogeneously grouped students who were in the seventh grade.

Results

The total number of seventh-grade participants from the heterogeneously grouped school was 79; these students were randomly selected and tested. Of these, 41 were boys and 38 were girls. Upon investigation, it was found that one boy gave no answers and two boys had entered school six weeks or more after the school year had begun. These 3 students were excluded from the study. Thus, 76 randomly selected heterogeneous students remained. Of these 76 students, there were 63 Caucasians, 9 Blacks, 1 Oriental, 1 Laosian, 1 Caucasian-Hispanic, and 1 student listed no race. The students' ages ranged from 12 to 14. There were 27 who were

12; 42 were 13; and 7 were 14 years of age. A total of 17 students out of the 76 were in the free lunch program.

The total number of student participants from the homogeneously grouped school was 72; 39 boys and 33 girls were included in the random selection and tested. Since two girls had entered six weeks or more after school had begun, their inventories were removed from the study. As a result, the sample group consisted of 70 students--39 boys and 31 girls. Of these 70 students, there were 70 students who all identified themselves as Caucasians. The students' ages ranged from 12 to 15. There were 15 who were 12; 40 were 13; 14 were 14; and one was 15 years of age. There were 12 students who were in the free lunch program.

Using the instructions from the Piers-Harris Children's Self-Concept Scale Manual, each inventory was hand scored. To identify the global self-concept as defined by the PHCSCS Manual, the total raw score was calculated. The highest possible raw score that a student could possibly achieve was 80; the lowest was zero. The range of scores for the heterogeneous group was 17-77. The range of scores for the homogeneous group was 22-77.

The researcher then manually calculated the mean scores for each group. The mean score for the heterogeneous group was 59; the mean score for the homogeneous group was 56.

To determine whether the difference between the means of the two groups were significant or not, this researcher chose to use a parametric test; the t test for independent samples

was selected with the probability level at .05. Using the formula for the t test calculation, it was manually determined that the t ratio was 1.61 which was lower than the table value. It was concluded by the researcher that there was insufficient evidence to reject the hypothesis that there was no difference between the two groups. The students who were heterogeneously grouped had no significantly higher global self-concept as a group than the groups who had been homogeneously grouped.

CHAPTER V

SUMMARY, CONCLUSIONS, AND IMPLICATIONS OF THE STUDY

The purpose of this chapter includes summarizing the significant findings, drawing some conclusions as a result of the findings, and discussing the meaning of these findings.

Summary of the Problem

It was the purpose of this investigation to study the relationship between global self-concept and two types of grouping arrangements used to classify learners for instruction in school. Two seventh-grade populations were identified and shown to be similar with respect to age, the school environment which they experienced, and the socioeconomic levels of the communities in which they lived. These populations differed primarily with regard to how they were grouped for instruction. One school assigned pupils to class sections heterogeneously while the other school made a definite effort to place learners in the language arts and math classes that were homogeneous with regard to academic learning ability. After a random selection of six

groups--three from the heterogenously grouped school and three (a high-, an average-, and a low-ability group) from the homogeneously grouped school, each was administered the Piers-Harris Children's Self-Concept Inventory.

Summary and Conclusions of the Findings

The hypothesis to be tested had stated: No significant difference in global self-concept would be discernable when a heterogeneously grouped sample was compared to a homogeneously grouped sample. For the population studied, the Piers-Harris Children's Self-Concept Inventory was used to measure the global self-concept of two seventh-grade populations. The findings of this investigation support the following conclusion. Ability grouping alone does not appear to have a significant effect on seventh-graders global self-concept.

On the basis of the findings of this research, it is apparent that the relative merits in relation to self-concept of one grouping procedure over another cannot be determined. Many variables seem to interact which in turn may effect achievement, success and failure, peer group associations, the psychological environment of the school administrative practices, curriculum, teaching methodology, the personal characteristics of the teacher, and socioeconomic characteristics. With so many variables involved, it seems unclear as to a sure procedure which will produce positive results in all directions.

Dyson (1967) stated that "nothing succeeds like success" (p. 405). From his study, he stressed the importance of success in the learning situation as a contribution to positive psychological growth. He indicated that the feeling of success is probably more crucial in its effect on the student self-concept than how an individual is grouped for instruction.

Any consideration within a school system as to how students may be best grouped for instruction should involve a complex study. Solutions compatible with current knowledge, research, and local conditions should be sought. Obviously, it would be a utopia for schools to succeed with every child. However, educators should strive to maximize in every way possible a feeling of acceptance and accomplishment for each student.

Implications of the Study

The results of this study can be helpful to various persons having an interest in counseling service programs in school systems. As a guidance counselor in a public school system, this researcher has much concern about any educational practice which could be detrimental to the self-concepts of our children. Educators must be careful with any educational practice that teachers do not attempt to raise achievement levels at the expense of students' self-concepts. For educators who are interested in solving the problems of individual differences, policies and programs

should be sought which enhance educational outcomes and promote fairness in educational processes. According to Noland and Taylor (1986), a review of research on ability grouping indicated inconsistency in the research. Noland and Taylor found that "a wide variety of techniques, measurement instruments, research designs, types of persons, and statistical techniques to interpret the data have been used" (p. 5). With the resulting contradictory empirical findings, Noland and Taylor suggested that school policy makers have had the liberty of selecting from among studies to justify almost any position that a school district might wish to take. It appears that more research about how schools should be organized and how students learn is a necessity.

This study could serve as a basis for further study. Some pertinent questions are these:

1. Compare the global self-concepts of boys and girls under each grouping plan (heterogeneous and homogeneous).

2. Compare the self-concepts of each ability group (high-, average-, and low-ability groups) to each other; then, compare each to a heterogeneous group.

3. Compare the academic self-concept of boys and girls who are heterogeneously and homogeneously grouped. Compare the academic self-concepts of each ability group to each other; then compare each to a heterogeneous group.

4. Compare the self-concepts of the low socioeconomic students with that of those who are average and above.

5. Compare the self-concepts of the different races under the two grouping plans.

If the self-concepts of our children are being negatively influenced by our school systems, policy makers and educators should be informed with whom the damage lies. Society should be made aware if educational practices are damaging global self-concepts or academic self-concepts. If the self-concepts of boys or girls, children in any ability group, the economically disadvantaged, or any race are harmed, we have a responsibility to our youth to know.

The controversy has continued too long. We need answers, not continued debates. Administrators, teachers, and parents need to appeal to local school boards and to state governments to enact some meaningful research. It is our responsibility to try to make education a positive experience for all our nation's youth.

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