HOW DOES HETEROGENEOUS ABILITY GROUPING AND HOMOGENEOUS
ABILITY GROUPING COMPARE IN ACADEMIC GROWTH AND IN
BUILDING SELF-ESTEEM?

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Running Head: ABILITY GROUPING
STEROTOGENEOUS ABILITY GROUPING AND HOMOGENEOUS GROUPING COMPARE IN ACADEMIC GROWTH AND IN BUILDING SELF-ESTEEM?

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In the last few years, educators have questioned the concept of ability grouping. While many schools are using homogeneous ability grouping of students, it is the best way for students to achieve their best way to teach, today there are present indications to this concept. Educators are re-examining books. Research is beginning to say something interesting.

In this thesis I will research the question, "How do homogeneous ability grouping and homogeneous grouping affect academic growth and build self-esteem?" This question has surfaced frequently in a comparison of schools in the Diocese of Des Moines.

It is needed to determine the direction our schools should be taking on this matter in the future. A review of literature in this area will include a history that began in 1929 with T. L. Purdom and then today with R. E. Slavin (1987). An ERIC search for pertinent information and a follow up of books through the bibliographies will be very helpful.

The research on this question is complete, it will benefit many of the surrounding area schools who may also be struggling with this issue of grouping.
Chapter I

INTRODUCTION

History

The primary aim of schools in the United States is to provide all students the maximum opportunity for their potential as individuals and members of society. Each individual within the system should have an equal chance to succeed.

Since the beginning of United States public schools in the early 1900's, schools have used ability grouping. Research from the 1920's as well as current research of the 1980's has the same weakness; difficulty in reaching a firm conclusion about ability grouping. (Kulik, 1985)

Controversy

Considerable controversy has developed among researchers as to the advantages and disadvantages of ability grouping. In these studies, ability grouping is defined as the separation of children in schools on a basis of perceived ability, as determined by standardized test scores, student academic performance, less formal teacher assessment, and/or parental and student input. (French & Rothman, 1990; Kulik, 1985)

Supporters of ability grouping have claimed that:

1. Ability grouping promotes achievement, as students can advance at their own rate with other students of similar ability.

2. Teachers can provide more appropriate materials and subject content to students of similar ability.
3. Less-capable students will suffer less emotional and educational damage from being in classrooms of peers with similar ability levels.

4. Ability grouping will ease the task of teaching, and is the best way to cope with the broad spectrum of student diversity. (French & Rothman, 1990)

Critics have identified four types of negative effects of ability grouping. They are as follows:

1. A weaker learning environment for the lower-tracked student.

2. A lowering of expectations and subsequent stigmatization of the lower tracked student as well as major deficiencies in curriculum implementation for that student.

3. A significant widening of the gap between students in the top and bottom tracks over time, coupled with student inability to move vertically out of lower and into higher tracks.


The controversy continues even today. At a recent Elementary Education Conference at the University of Northern Iowa, ninety-two percent of the teachers surveyed indicated that they favored ability grouping. Within this group, sixty-six percent were not familiar with the research. (Benedict, 1986)

**Purpose of the Review**

The purpose of this review of literature will be to determine how heterogeneous ability grouping and homogeneous ability grouping compare in academic growth.
and in building self-esteem. The goal is that a clearer understanding of our reasons for grouping students the way we do.

Chapter II

REVIEW OF LITERATURE

Procedure

Literature Search

Knowing that there would be a wide range of areas that would have to be narrowed, I first began to develop a list of guide words to use in an ERIC search through the use of the ERIC Thesaurus. Once several guide words were selected, a process of trial and error was utilized. Narrowing the subject to education and grouping took some time.

When a list of articles was developed, primary sources were identified, classified, and a hand search for documents began. A quick check to see if the journals were available in the Drake Library through the reference book Periodicals in Cowles Library saved a lot of time and effort. Most journals and documents were available at the Drake Library.

Nature of Articles

The range of types of articles was varied. There were many that spoke to the areas of ability grouping but could not be classified as primary sources because they did not use their own research. However, these articles from a variety of educational journals gave a good general background of specific areas that I needed to research. They also offered opinions as to what the
authors believed the research was saying. The bibliographies of these and all the articles were very helpful in leading to more primary sources.

There were many articles that were written by foreign educators and researchers. Yehezkel Dar and Nura Resh from Israel are two that have been referenced in this paper. This surprised me for some reason, but I found their material very useful and well written.

Criteria for Article Selection

As each article was read and analyzed, a Critical Evaluation of Research (Appendices) was used to summarize and rate each. This evaluation tool became very useful, especially when the number of articles increased and pertinent information needed to be available quickly.

Areas of evaluation included descriptive characteristics of the articles, specifically their hypotheses; how the researcher proceeded through the research, and the measures taken and research design used. Overall validity (internal and external) were rated on each article, and conclusions of findings were noted. Finally, each article was noted for how it related to the research review that I am conducting.

All articles were used, if not for the direct relationship to my review, then for their background and general information to help formulate a clear idea of what the research was saying.

The search for literature in the area of ability grouping dates back to the early 1920's and much of the same research is still going on today. As I moved through this process of literature review, I found that many of the methods used earlier are still used today.
The conclusions of all this work will point this out to the reader.

Results

Characteristics of the Literature

Since ability grouping has been utilized in public schools from the turn of the century, much research can be dated back to the 1920's and 1930's. (Purdom, 1929; Gray, 1931) Over the years, the concept of ability grouping has plagued researchers who have tried to determine its educational importances.

Today, the researchers are still not in agreement as to how the studies should be conducted or even the type of ability grouping that should be researched. Several types of grouping have been identified by the literature. They include (a) between-class grouping (b) within class grouping (c) regrouping for certain subjects (d) the Joplin plan (e) nongraded and (f) gifted programs (Slavin, 1987; Slavin, 1988).

The constant factor in all the research is that the independent variable has remained constant. That independent variable is the actual grouping process of students. Conclusions are reached by observing how grouping affects the outcome of the subjects. A problem in some research was that there was a varying degree of homogenization (Dar & Resh, 1981) in how groups were made up for each study.

A variety of research designs was used to conduct the research on ability grouping. Most used a pretest-posttest design (Borg & Perpich, 1966; Burken, Swanson, Sawyer, 1966) or a quasi-experimental comparison (Dar &
Resh, 1981). Although these designs were sound, the internal validity of the research could be questioned in many. The major effects on internal validity are described as follows:

**Maturation:** Research studies were conducted over a period of time ranging from a few weeks to five years. Although random assignment could help eliminate this threat, many reports did not specify that random selection or assignment was used.

**Regression:** By the very nature of these studies, regression can be a threat. Students are ability grouped at high and low levels; therefore, natural regression will be a threat.

**Selection:** The selection process for putting subjects into groups is always critical to the validity of any research. In the research for ability grouping, groups were, by the nature of the study, not to be equal but grouped by levels of abilities. Although this may seem like a simple task, problems with this selection process came up in the research.

As researchers began to group into homogeneous levels, the number of students within a class or group became a bigger concern than pure groups. (Dar, Resh, 1981) If twenty students were needed in each group and a class only had twelve or fifteen that truly fit the category, middle level students were used to fill the spaces. The same procedure was evident with lower ability groups when average or middle level students were used to "fill" the number requirement. This type of selection for homogeneous grouping was difficult to control. This selection process created a "tweeners"
group that affected either the low or high group outcomes.

**Mortality:** With the use of large numbers of subjects, mortality was not a great threat.

**Instrumentation:** A variety of instruments were used to determine outcomes for subjects involved. Some used national test scores (Burken, Swansen, Sawyer, 1961; Gray & Hollingworth, 1931; Piland & Lemke, 1971). Other research materials failed to name the achievement test or the IQ tests used in their study. The validity of these tests are questioned as well as their reliability to accurately predict future performance.

**Testing:** Where pretests were conducted, threats to validity were affected. (Borg & Perpich, 1966; Burken Swansen, Sawyer, 1966). If researchers did not indicate a pretest, it was assumed that the pretest must have existed in order to establish high, middle and low groups. These pretests may have been scores of previous national tests. To prove that heterogeneous groups are equal, a pretest must be given or some scoring must exist.

**History:** If the research was conducted in a single school, history may not be a threat; however, most research was conducted over large numbers and various areas (Burken, Swanson, Sawyer, 1966; Dar & Resh, 1981; 1986; Goldberg, Passow, Justman, 1966; Hallinan & Sorensen, 1985; Tesh & Jaeger, 1990; Trimble & Sinclair, 1987). In any circumstance, the ability of the teacher in the classroom is a factor that cannot be overlooked in any of this research. Several authors documented the value and effect of teachers on growth of achievement, self-esteem and participation. (Poppish et al. 1990;
Trimble & Sinclair, 1987; Kulik & Kulik, 1985; Esposito, 1973)

External Validity

Because each research study differs in the width and length of variety and numbers of subjects involved in the research, varying degrees of external threats exist. On a whole; however, when all the research is combined by meta-analysis (Kulik & Kulik, 1984; 1987; Kulik, 1985) or best-evidence (Slavin, 1987), external validity becomes very strong and easily generalized to various populations and environments.

Comparison of Research

Although there have been many studies on the subject of ability grouping, two major studies on the subject have come to the forefront of the issue. Each of the studies is significant in its depth of review and analysis. These studies approach the subject by analyzing data into a meta-analysis (Kulik, 1985) or best-evidence synthesis (Slavin, 1987).

Meta-Analysis Approach. The meta-analysis approach used by Chen Lin Kulik (1985) is similar to that of Glass, McGraw and Smith (1981) which requires that the researcher:

1. locate studies of an issue through objectives and replicable searches.
2. code studies for salient features.
3. describe study outcomes on a common scale.
4. use statistical methods to find relationships between study features and study outcomes.
The results of Kulik's research showed that she did two separate analyses with ability grouping. One was to examine academic achievement, and the other was to measure self-esteem.

Achievement effect size for this study showed an average of .15. Not too much importance should be attached to this average effect. Further analysis showed that certain types of studies produce stronger results than others. The formula for Effect Size is below:

\[
\text{Effect Size (ES)} = \frac{X_1 - X_2}{SD}
\]

Three ability grouping methods were examined. They include (a) XYZ grouping: Three groups are formed: high, middle and low. (b) Honors group: A select group of students are placed in an honors or talented program separate from other students. (c) Remedial groups: Slow learners are separate from others for remedial work.

Varying degrees of effects in achievement were found in the three programs. XYZ groups showed little effect. Honors groups showed the highest growth and remedial groups showed no effect; however, there were very few studies available to give support on the effects of the remedial groups. The complete listing of test and effect sizes is given on table 2. (Kulik & Kulik, 1984)

Insert Table 2 about here
There were also varying degrees of effect in regard to self-esteem. The XYZ groups had a tendency to be positive for low groups. Honors groups had trivial effect and remedial groups showed positive effects.

C.L. Kulik concludes in her study that talented grouped students will invariably gain academically and will be more modest about their abilities. Slower learners, if grouped, will improve their self-esteem and show a small positive effect on academic achievement. Average or middle groups will have no effect on academic achievement or self-esteem because they would be in a more heterogeneous environment.

**Best-Evidence Synthesis Approach.** The "best-evidence synthesis" (Slavin, 1986), is a method that incorporates the best features of both meta-analysis and traditional narrative review. The main elements of best-evidence synthesis are (a) Clearly specified, defensible a priori criteria for inclusion of studies are established. (b) All published and nonpublished studies that meet these criteria are located and included. (c) When possible, effect sizes for included studies are computed (d) When effect sizes cannot be computed, effects of studies that meet inclusion criteria are characterized as positive, negative, or zero rather than excluded and (e) Apart from computation of effect sizes and use of well-specified inclusion criteria, best-evidence syntheses are identical to traditional narrative reviews.

R. E. Slavin (1987) was concerned with four grouping plans of which we will deal with only three. They include (a) Ability-grouping by class assignment.
(b) Regrouping for reading and/or math and (c) Within class ability grouping.

Following the best-evidence synthesis approach, these results were realized: (a) Ability grouped class assignment does not enhance student achievement in elementary grades. (b) Regrouping for reading and/or math shows very unclear conclusions as to academic achievement for students and (c) Within class ability grouping was supported if the number of groups are kept small. (Because of the small number of studies, the within group support is aimed at upper elementary math groups only.) The complete list of studies used by Slavin (1985) for best-evidence synthesis are located on table 3.

Insert Table 3 about here

Measures for self-esteem were not calculated or compared in this study. However, in a later study, Slavin (1988) points out that ability grouped class assignments may be enough to produce psychological drawbacks.

Conclusion

The research in this review, provide conclusions about the pros and cons of ability grouping that can vary according to which research the readers can agree with. They vary in design, grade levels of students, number of subjects, duration of testing, and especially outcomes of results and conclusions. The research, therefore, is inconclusive and is subject to the readers
bias. I, however, believe that some common sense must prevail.

Several areas of concern have been brought to the surface when we talk about ability grouping. These must be addressed to see the entire picture of the value of ability grouping.

**Academic Achievement:** Of the research read for this review, a large majority of the studies supported the notion that ability grouping had no significant advantage for academic achievement. In fact, most showed that ability grouping actually diminished progress, especially in the middle and lower groups. These conclusions can easily be supported when we know that the curriculum, teaching techniques and student expectations do not meet the needs of middle and lower students. In order for any grouping to be successful, teachers must adapt their instruction to the student levels. (Good & Brady, 1991; Sorensen & Hallinan, 1986)

**Self-Esteem:** Inasmuch as achievement is hard to measure, I chose to also study student self-esteem in relationship to ability grouping. Probably as big an issue as academic achievement is the concept of student self-esteem. While some research claims that low ability students' self-esteem is better with homogeneous groups (Kulik & Kulik, 1987); more and more research is showing that the opposite is true. Low and middle students show a high level of self-esteem when placed in heterogeneous groups. (Dar & Resh, 1986; Esposito, 1973; French & Rothman, 1990; Noland & Taylor 1986) When student ability to learn is a factor, the self-esteem of the students and how they feel about school can play a large role in their success.
Discrimination and Socio-Economic Concerns: Three studies (French & Rothman, 1990; Tesh & Jaeger, 1990; Manning & Lucking, 1990) pointed out the concern that ability grouping widened the gap between socio-economic groups within our schools. Low socio-economic students rarely get grouped into the higher ability levels. These low ability groups are made up primarily of blacks and Hispanics. Grouping does not allow the groups to mix and develop friendships (Hallinan & Sorensen, 1985). Therefore, heterogeneous groups will support the concept of developing relationships between all socio-economic levels.

Teacher Input: As I read each research study, it was evident that the link to any student achievement was the ability of the teacher to motivate the groups to perform. Whether they were ability grouped, within class or between class, high or low levels, heterogeneous or homogeneous, the internal factor was the teachers. The teacher was the uncontrollable variable in any research. (Poppish et al. 1990; Sorensen & Hallinan, 1986; Trimble & Sinclair, 1987)

This makes one think that less time should be used to determine grouping and more time spent in recruiting, training and motivating good teachers.

Recommendations

Upon completion of this review, it is recommended that schools in the Diocese of Des Moines adopt a more heterogeneous method of grouping students. They should continue to promote Talented and Gifted (TAG) programs as a challenge to high ability students and Chapter I or Remedial programs to help the lower level students.
These programs can be integrated into regular classrooms with minimal pull out time.

Since the research does indicate growth in academic achievement when within class grouping exists in reading and/or math, a flexible grouping program could be adopted to meet the needs of all students. This would mean that the reading/math class would receive instruction as a whole group. Then the teacher may divide the class into groups. One group may need extension work (high level), and another group may need extra help (lower level). The students in these groups will vary according to the content of the lesson and the ability to learn the material.

It is also recommended that future research in this area of ability grouping adopt a research design that meets the needs of everyone so that better documentation and comparison can be accomplished. Researchers obviously had some bias in their interpretations of effect sizes and other tests.

Chapter III

PROCEDURES

Upon arriving at St. Anthony School, I discovered that the practice of grouping students by abilities in reading and mathematics was well entrenched there and throughout the diocese. During the first two years as principal, I became aware of several things that forced me to evaluate this process and seek a better way to teach all students.
By reading recent research on the topic of ability grouping and discussing the subject with colleagues, I concluded that lower level students were not receiving the help appropriate for them to make individual progress.

My personal contact with these students provided additional insights. Many of these lower ability students frequently were sent to my office for varying degrees of behavior problems and I came to know several of them very well. As time went by, I determined that many of them had very low self esteem. They would express to me that the reason that they were always in trouble was that they felt that they were dumb. When questioned about why they believed they were dumb, they would respond that they were in the low reading and math groups and that they would always be in this group. I concluded that membership in low ability groups might be linked to low self esteem which in turn led to behavior problems.

During 1991, without more than a general knowledge of ability grouping, I started to look for something better than what we had. I talked to other principals in the Des Moines area Catholic and public schools to see what they were doing and then began to read articles on the subject. Experienced administrators are always a good source of information on various topics and I found that some were having the same thoughts about ability grouping in their buildings. This was followed up with some readings from Educational Leadership and other periodicals. Much of the reading was connected with the classes I was taking at Drake University for my specialist degree.
While reading various periodicals, the term flexible grouping has surfaced as a grouping plan that can meet the needs of all students. As I understand, flexible grouping in some subjects (reading and math) has been developed to take advantage of various teaching models. It combines whole group instruction, small groups, gifted and remedial programs all in one setting. Flexible groups allow the teacher to give specific help to students at the level their ability dictates. This flexibility also allows the teacher to change groups on a daily basis depending on the subject matter being taught. Students then progress at a steady pace without losing self esteem that is brought about through strict ability grouping.

At the end of the 1990-91 school year, I presented the faculty with my findings and together we began to adopt this new flexible grouping concept. Several teachers went to other buildings to observe and talk with teachers who were presently using this model. They, in turn, reported back to the entire faculty what they had observed. I was busy looking into staff development possibilities for the coming fall and planning an implementation process for grades K-8. For the beginning of the 1991-92 school year, we were ready to start to implement our plan.

Flexible grouping is not new to education. Teachers have used this method of teaching for many years. Flexible grouping means that subject matter would be taught to the whole group at one time. Following this whole group instruction, students would be given guided practice to check learning. From the guided practice, the teacher then gives personal or
small group attention to students based on their needs. For example, students who understand the material and complete the guided practice are then challenged with extension exercises. Those who find the material difficult receive extra help from the teacher during this guided practice time. Each student is given help at his or her own level of need. The level of need changes as new material is presented. Evaluation of student ability is done on a daily basis so that students who may be doing extension work that will challenge them to expand their knowledge one week, may be getting extra help the next. (Adams, 1990)

In August, 1991, our teachers met with a reading consultant from the Silver Burdett/Ginn Publishing Company. The Ginn Publishing Company has been a source of reading help in the past and we were looking for new textbooks in the near future. They also came highly recommended by other principals who were looking to move toward flexible grouping or may have already made the change. The representative was to instruct our teachers on flexible grouping. Our goal for this transition to flexible grouping was two fold. First, we wanted to improve the reading and math skills of our students. We could measure this growth through the yearly ITBS exams we took in October. Second, we were very interested in improving the self esteem of all our students. Improved self esteem, we believed, would encourage students to want to learn and feel good about themselves.

A follow-up of this staff development was conducted later in the year. At the end of the 91-92 school year, a careful evaluation of our progress was made to determine how much progress was made and what our next
step may be. We determined that the adoption of new reading series could best meet our needs. The present books did not adapt to flexible grouping. Teachers then evaluated and adopted a new reading book for the 1992-93 school year. Two different publishers were selected. Primary grades (K-2) selected the Silver Burdett/Ginn series because of their simple approach to reading. The upper grades (3-8) selected the reading series from Houghton Mifflin because of its emphasis on writing skills. Both texts were designed to be used with flexible grouping.

The new 1992-93 school year opened with another follow-up staff development on the new texts and adoption to flexible grouping. As October approaches, we will anticipate our ITBS to get our first measure of growth. One thing that we all must keep in mind is that this concept is an on-going process that we must continue to develop and allow to grow.

Baseline data will be vital when we measure effects of whole group instruction compared to ability grouping. The Iowa Test of Basic Skills (ITBS) scores of St. Anthony School students from grades three through five can be found on table one. These scores show the scores from 1989 to 1992 in three areas: Reading, Math and Composite. All tests are measured by National Grade Equivalent (NGE).

Insert Table 1 about here
Test for self-esteem: Having found little conclusive research on ability grouping and how it effects academic progress, I decided to look into ability groupings effects on self-esteem. I asked, "Does ability grouping affect student self-esteem?" After reviewing the literature, I began testing some of our own students in the Des Moines Diocese.

Definition of self-esteem

The term "self-esteem" refers to the evaluation a person makes and customarily maintains with regard too him- or herself. "Self-esteem" expresses an attitude of approval or disapproval and indicates the extent to which a person believes himself or herself capable, significant, successful, and worthy. In short, a person's self-esteem is a judgment of worthiness that is expressed by the attitudes he or she holds toward the self. It is a subjective experience conveyed to others by verbal reports and other overt expressive behavior. (Coopersmith, S., 1981).

Since a large majority of researchers on ability grouping supported the notion that there was no significant advantage to ability grouping about academic achievement, a major issue in ability grouping should be the effect grouping has on student self-esteem. When student ability to learn is a factor, the self-esteem of the students and how they feel about school and self can play a large role in their success. To reinforce this idea with my study groups, I selected the Self-Esteem Inventories (SEI) by Stanley Coopersmith.
The SEI is designed to measure evaluative attitudes toward the self in social, academic, family, and personal areas of experience. (There is also a Lie Scale that indicates extremely socialized response sets.) In relation to the SEI, the term "self-esteem" refers to the evaluation a person makes, and customarily maintains, of him- or herself; that is, overall self-esteem is an expression of approval or disapproval, indicating the extent to which a person believes him- or herself competent, successful, significant, and worthy. Self-esteem is a personal judgment of worthiness expressed in the attitudes a person holds toward the self.

The SEI was developed in conjunction with an extensive study of self-esteem in children (Coopersmith, 1967). The major basis for the study was the widely held belief that self-esteem is significantly associated with personal satisfaction and effective functioning. This belief is shared by many personality theorists and clinical and social psychologists. Since, however, consensus does not constitute proof, the belief needed to be tested empirically. In addition, it was found that few direct studies of self-esteem had been made and that statements about self-esteem tended to be relatively general in nature. They rarely indicated the specific behaviors to which self-esteem is related or in what way it is a contributing determinant of personality. The need for reliable, valid measure of
self-esteem was thus established and led to the development of the SEI. (Coopersmith, 1981).

Administration

The SEI is easily available through our local AEA (Heartland) and can be scored by Mid-Iowa Computer here in Des Moines. The SEI can be administered easily through classroom teachers within a thirty minute period. For the purpose of this project, the SEI will be administered to students in grades 3 and 5. A number of schools from the Diocese of Des Moines will be included in the testing. This will give a represented sample of our schools' population.

Technical Support

Since its development, the SEI has been administered to tens of thousands of children and adults participating in research studies or in special educational or clinical programs to enhance self-esteem. All socioeconomic ranges and many ethnic and cultural groups are represented. (Coopersmith, 1981) A number of tests for reliability (coefficients between .80 and .92) and validity have been conducted since 1971. Coopersmith cautions using the normative samples. Even though several are quite large, their primary usefulness will be for comparison purposes. It is strongly recommended that users develop local norms.

Testing information, test copy, and sample answer sheet for the Coopersmith Self-Esteem Inventory given to participating teachers can be found in Appendix B.
INTERVIEW

Grouping has become a common term in education over the years and many researchers have defined how it should look. However, to get a clear picture about grouping, we need to go out into the schools and see what grouping techniques teachers and administrators are using.

Because of time constraints, I've chosen to interview principals, teachers and parents of students who presently use ability grouping as well as those who do not group by ability. My hope is that I will get a "feel" for the effects of grouping as seen by all these groups.

When dealing with self-esteem, it is very difficult for anyone to come up with an exact measurement that can determine the cause of positive or negative self-esteem. Therefore, the interviewing process can only give perceptions of how groups see their children, classrooms or schools. This can in no way give accurate data for comparisons. Ability grouping interview questions given to the participating teachers can be found in Appendix C.

Chapter IV

PRESENTATION OF DATA AND FINDINGS

INTERVIEW SUMMARY
The interviewing process used for this paper began with the development of an instrument that can best describe the grouping techniques that are being used by the teachers and schools. This instrument consists of questions that will help to draw some conclusions on the affect grouping has on self-esteem and academic growth. A copy of this instrument can be found in Appendix A.

Interview questions were derived with the help of Dr. Ed Ducharme of Drake University. He gave me information on interview techniques and possible follow-up questions that would help obtain the necessary information that I would need to draw conclusions.

Three schools were selected within the Diocese of Des Moines School System. An effort was made to select schools from different areas of the city so that a cross section of socio-economic groups are represented. Also, only elementary level teachers (grades 1-5) were used so that the range of ages can be limited and therefore; better focus the research.

Three teachers were selected from each school for interview. These teachers were recommended by the principal of each building and volunteered to take part in the interview. Teachers also volunteered to give their students the Coopersmith Self-Esteem Inventory. Appointments, interviews and follow-up began in January of 1993 and concluded in February of 1993.

Included in the interview were two building principals. Their input helped me get a fuller picture of the entire school’s grouping policy and special student needs of the school.

Diocese of Des Moines schools were selected because each school is very parochial. They make their own book
selections, determine acceptable techniques and work
with their own boards of education and communities.
This gives a variety of independent schools within one
district.

This interviewing process was used to get a "feel"
for how teachers utilize grouping of students. The
questioning relates to how the teachers and principals
feel about the self-esteem and academic growth of their
students grouped by ability or grouped heterogeneously.
The responses of the nine teachers and two principals to
the interview questions were as follows:

ABILITY GROUPING INTERVIEW QUESTIONS SUMMARY

DO YOU GROUP YOUR STUDENTS BY ABILITY?

NO  9 responses (8 teachers, 1 principal)
YES 2 responses (1 teacher, 1 principal)

IF NOT: WHAT FORM OF GROUPING DO YOU USE?

Of the 8 NO's, 5 used some type of flexible
grouping, 2 called their groups heterogeneous, 1
used random grouping and 1 used cooperative
grouping.

IF SO:

WHY?  HOW DO YOU DIVIDE GROUPS?

The one teacher that used ability grouping said she
uses ability grouping only in spelling because of
the range of spellers in her class.
The one principal said that ability grouping better
meets the needs of the students. Groups are
divided into two groups -- high and low.

WHAT METHOD OF EVALUATION IS USED TO DETERMINE GROUP
ABILITY?  NUMBERS IN A GROUP?
The teacher used pre/post tests to determine groups and the numbers in each group. The principal evaluates quarterly with transitional meetings of teachers. These teachers use test scores and previous teacher recommendations to try and make two equal number of students in each group.

**Can students move from one group to another? How? How frequent? Do they move down more than up?**

The teacher said student movement is based on consistent progress (90%) of the student. Students can move up or down depending on this progress. The principal said that students must show an 80%-85% mastery to move up to the high group. Movement doesn't happen often but more students move up than down. Neither teacher or principal had specific numbers.

**Who decides if a student changes groups (Parent pressure? Student request? Punishment?)?**

The teacher decides all changes for the one teacher.

The principal said that teachers are the primary evaluators, although, they will listen to parents and students. Students can move down for punishment.

**How often are students evaluated to determine change of groups?**

No one has moved yet this year for the teacher. The principal has evaluations quarterly. Research indicated that little movement that does exist is usually downward, creating a narrowing of
access for students to receive high quality instruction. (French & Rothman, 1990)

**HAVE YOU EVER MEASURED STUDENTS SELF-ESTEEM? HOW?**

Neither the teacher or the principal have used a specific tool to measure self-esteem.

**HOW DO YOU FEEL ABOUT THE SELF-ESTEEM OF YOUR STUDENTS IN REGARDS TO GROUPING STUDENTS BY ABILITY?**

The teacher stated that she worries about lower students sometimes. They are usually quiet and do not speak up.

The principal said that low students all have low self-esteem, so they try to boost self-esteem in other areas and ways. (i.e., Sports, Music, Drama)

**HOW DO YOU FEEL YOUR STUDENTS PROGRESS ACADEMICALLY?**

The teacher thinks they are better with groups divided by ability.

The principal thinks that this system best meets the needs of their students.

**HAVE YOU TRIED ANY OTHER METHODS OF GROUPING? IF SO:**

**WHAT?**

Teacher--yes, we had three reading groups and didn't like it. The self-esteem of low students was very low.

Principal--yes, we are experimenting with flexible grouping in reading this year.

**DO YOU USE WHOLE GROUP INSTRUCTION?**

All eleven responders use whole group instruction

**IF SO:**

**WHY?** Someone told you to? It was your idea? You read an article?

8 responders said that a new reading text has been adopted this year by their schools. This series
(Houghton Mifflin) promotes whole group instruction.
2 responders said whole group instruction was easier to teach.
4 said they've read articles about whole group instruction.

DOES THIS WHOLE GROUP INSTRUCTION INCLUDE SOME TYPE OF GROUPING? WHAT KIND?

5 responders used flexible grouping within their whole group lessons.
4 use paired groups.
1 will divide the class into two heterogeneous groups for small group instruction.
1 grouped higher students so she can give more time to lower ability students.

HOW ARE THEY GROUPED? HOW OFTEN DO YOU GROUP STUDENTS?

HOW DO YOU DETERMINE GROUPING OF STUDENTS?

HOW GROUPED:

7 responders said that students are grouped by assessing needs through assignments, observation, class discussion, etc.
1 responder grouped students by interest level of the students.
1 responder said that groups don't change because they are already mixed by ability.
1 said that groups are assigned randomly.
1 said they are grouped by TAG and Chapter (NOTE)
All buildings have pull out programs for TAG and Chapter I
ABILITY GROUPING

HOW OFTEN:
Times of change are all frequent, from 6 times a week to daily in some cases.

HOW DETERMINED
All said that groups are determined by assessment of teachers based on test scores, observation and classroom discussions.

DO YOU EVER MEASURE STUDENTS SELF-ESTEEM? HOW?
None of the responders have ever used a self-esteem tool to measure students. They all evaluated self-esteem on observation of students, students work and feedback.

HOW DOES WHOLE GROUP INSTRUCTION BENEFITS STUDENT SELF-ESTEEM? HOW?
All eleven responders feel that whole group instruction has a positive influence on self-esteem. Students show better attitude, support each other, learn from each other and show less negative attitudes.

DID YOU EVER USE ABILITY GROUPING IN YOUR TEACHING?
10 responders have used ability grouping in their teaching careers.
1 responder is a new teacher.

DOES WHOLE GROUP INSTRUCTION IMPROVE ACADEMICS?
7 responders said that they saw an increase in academic growth. Some said that whole group instruction allows them to move all students into the next reading grade. Prior to whole group instruction, lower grouped students rarely finished grade level work. Whole group instruction sets higher expectations for all students.
2 responders say that both ability grouping and whole group instruction show the same academic growth.
2 responders are not sure yet because whole groups instruction is still new.

IMPROVING SELF-ESTEEM?

10 responders strongly agree that self-esteem has improved with the use of whole group instruction.
1 says that ability grouping builds confidence in students and much self-esteem building depends on the classroom teacher.

WHAT DO YOU FEEL IS MORE IMPORTANT FOR ELEMENTARY STUDENTS:

- THAT ALL STUDENTS LEARN?
- THAT ALL STUDENTS WORK WITHIN THEIR OWN ACADEMIC LEVEL?
- THAT STUDENT SELF-ESTEEM SHOULD BE A MAJOR FACTOR IN STUDENT LEARNING?

PLEASE EXPLAIN YOUR REASONS FOR THIS CHOICE.

<table>
<thead>
<tr>
<th>RANK</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALL STUDENTS LEARN</td>
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<tr>
<td>WORK IN OWN ACADEMIC LEVEL</td>
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<td>1</td>
<td>10</td>
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<tr>
<td>SELF-ESTEEM MAJOR FACTOR</td>
<td>9</td>
<td>2</td>
<td>0</td>
</tr>
</tbody>
</table>

* 2 ranked a tie for first choice
COMMENTS:

If students don't feel good about themselves, they won't attempt to learn.

The other options will follow if students have good self-esteem.

Students can't learn anything unless they feel good about themselves.

Low self-esteem can be a road block to learning.

If students don't want to learn, they won't.

The first major step in learning is self-esteem. It increases their chances of learning.

If they don't think they can do it, they won't.

Self-esteem is the basis for any kind of learning. How you see yourself will affect how you learn.

Children will do what we expect from them. If I expect them to learn, they will learn.

If students are learning, they will have self-esteem.
Three classes in each of the three schools, participated in the CSEI. The purpose of testing at this time was to accumulate baseline data for future comparison. The CSEI will be given again to these same students to check the growth of decline of self-esteem over a period of time. It may then be possible to determine the effect of ability grouping on the group's self-esteem. The self-esteem inventory provides an assessment of self-concept which may be broken down into five subscales: General-Self, Social-Self, Home-Parent, Lie Scale, and School Academic.

Scores are reported for each subscale. A total score is also reported, which is the sum of all the subscales. A maximum total score would be 58. Maximum score for each scale is:

- General Self: 26
- Social Self-peers: 8
- Home-Parents: 8
- Lie Scale: 8
- School-academic: 8
- TOTAL SCORE: 58

The General-Self scores indicate how the person generally accepts oneself, the Social-Self scores represent a person's attitude towards peers, the Home-parent scale assesses a person's attitude of home, and
the Lie Scale gives an indication of the student's openness in answering the questions. The School-Academic scores represent the student's attitude toward the school environment.

This is a self-reporting instrument and is subject to all the limitations of any self-reporting instrument. The Lie Scale is important for if this score is very low (3 or less) the other scores may not be valid.

This inventory is generally used as a research or evaluation instrument and should not be used as an individual diagnosis instrument. The group mean scores indicate what the student's self-images are for the classroom. No norms have been developed for the instrument since it is debatable as to what should be a "normal" score. Nevertheless, comparisons can be made between groups' means to see if students in different groups answer the inventory differently.

Over a period of time a general assessment can be made regarding the self-esteem of a group. An example of using the inventory this way would be to examine the social-peer self subscale mean for the fourth grade class one year and compare the same classroom mean the following year. Another example would be to examine a subscale mean for each 4th, 5th and 6th grade class.

A summary of totals for all three participating schools is included in Table four. This summary gives the average scores of students in each school by grade. Scores are also separated by subscales discussed.

Insert Table 4 about here
Using Classroom Means

An individual teacher can compare her/his classroom average with past classroom means or with means for a particular grade level. Teachers should not be overly concerned about classroom means which are below the grade level average. (Half of the classroom for the grade level will fall below the grade level average.) But they may wish to ask themselves these questions:

1) How many of the individual students have a lie scale score of 3 or less? This scale is a rough estimate of validity. Many students with low lie scale scores indicate that the class means may not be a good indicator of the class's self-esteem.

2) Are the scores what one would expect from this classroom: Does this class have an especially positive (high scoring group) or an especially negative (low scoring group)?

3) Did something happen before or during the administration of the Inventory which would have influences the students' attitude?

Table five gives the Grand Total of all scores of the CSI for each school and for all schools combined. Each grade school and all totals are listed by a mean that represents the entire test. Standard Deviations are also given in the same manner. There is a noted difference in mean scores between St. Anthony School and the other two schools. This difference may represent a
variance in socio-economic standards from one student body to the next. St. Anthony School population has a high number (approximately 30%) of low socio-economic families compared to the other schools in the survey.

Insert Table 5 about here

Using Individual Student Scores

1) Don't use the individual score to psychoanalyze students. This inventory is designed as a research or evaluation instrument and not as an individual diagnosis instrument.

2) The scores may support your views. If a student's score is low (1 or 2 on the Social-Peer, Home-Parent, or School-Academic subscales or if it is less than 10 on the General Self-subscale) with 4 or more on the lie scale, and it supports your belief that the child is extremely negative, you may wish to consult the school psychologist. Don't judge the student's self concept on the basis of the Coopersmith Self-Esteem Inventory alone.

3) If a student's score is low and you believe the score is not indicative of the student's behavior, don't accept the Inventory's score as better than your professional judgment.
Chapter V

CONCLUSION

By the nature of this study, a conclusion can not be reached at this time. This can only be accomplished with further testing of students over a three or four year period. More data must be gathered over this time to conclude the effect of grouping in schools.

If, after three or four years, the data collected indicate that the academic ability of the students is changing and if teachers or schools have adopted a change in grouping techniques, the change in scores may have been caused by the type of grouping utilized. Research indicates that little change will occur in higher ability students but larger growth is in academics could occur in students from the middle or low ability levels with whole group instruction for heterogeneous groups. One method to determine if growth has taken place would be the use of ITBS scores given each year by the schools.

The largest change affected by grouping will come in the area of self-esteem. If a change by the teacher or school is made in how students are grouped, there is a predicted change in self-esteem. Research indicates that self-esteem will grow when heterogeneous groups of students are formed for classes. This growth of self-esteem is particularly large in middle and low ability students. By use of the Coopersmith Self-Esteem Inventory over a three or four year period, students could be followed and checked annually for changes in self-esteem.
RECOMMENDATIONS

Dramatic changes in grouping policies can not be made at this time based on this study. However, schools are encouraged to study the present research available on ability grouping of students. As the reader can see in the Review of Literature for this thesis, there are many points of view on the subject and each has some research to back up their theory.

One thing that does surface in the discussion of grouping is that self-esteem is a key ingredient in student success. The research and teacher interviews show that students need a good self image to be able to perform their best in school. If this is the case, building self-esteem of students should be a critical factor in schools.

Most of the teachers and principals interviewed in this thesis would agree that self-esteem is important. However, for this to be valid research, more extensive testing and interviewing must take place. This process will take three or four years to complete but can be very valuable for the Diocese of Des Moines Schools.

It is recommended that a larger study of ability grouping be completed in order to better see the relationship of ability grouping and self-esteem for Des Moines. A wider range of schools should be included for testing and a larger number of teachers/principals need to be interviewed. This will give these schools a firm research background to facilitate the necessary changes that may need to take place.
REFERENCES


Esposito, D. (1973). Homogeneous and heterogeneous ability grouping: principal findings and


Sabattas, ME. Oak Hill High School. (ERIC Document Reproduction Service No. ED 328 397)


**APPENDIX A**

**CRITICAL EVALUATION OF RESEARCH**

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</table>

Reference Citation (Use APA form):

**TYPE OF ARTICLE:** (Circle One)

- Literature Review
- Primary Research or Evaluation
- Editorial
- Program Description

**DESCRIPTIVE CHARACTERISTICS**

- Hypotheses:

- Procedures and Subjects:

- Measures used & research design:

Rating of the research design: (1-6) _____
VALIDITY CHARACTERISTICS

Threats to Internal Validity

___ Maturation
___ Regression
___ Selection

Other Comments on Validity:
___ Mortality
___ Instrumentation
___ Testing
___ History

FINDINGS:

CONCLUSION:

RELATIONSHIP TO MY RESEARCH QUESTION:
TO: Audry Scigliano
    Mary Barney
    Marie Franzenburg

St. Anthony School, Des Moines

Thanks for your help with my thesis project. As I mentioned during our interview, I would be sending the Coopersmith Self-Esteem Inventory to you to give to your class. I've included enough tests to include both classes in your grade at your school if you would like to test all the students in your grade. Results of your testing will be sent to you when I have completed my analysis.

Please read the instructions below and follow them carefully. For this test to be valid, all classes and schools must follow the same directions.

Thanks again for your help. Call me at St. Anthony School (243-1874) if you have any questions.

DIRECTIONS FOR MARKING ANSWER SHEETS: Directions for the test are given on the back of the answer sheet. Remind students that they are only marking circle "A"
(LIKE ME) or "B" (UNLIKE ME). For younger grades, the teacher may select to read each statement and mark all bobbles together.

**NAME GRIDS:** Follow the directions given on the grid side.

Special codes:

- County Code: 77
- District Code: 1993

School Code:
- St. Anthony: 0001
- Sacred Heart: 0002
- St. Theresa: 0003

Class Teacher: leave blank
Student Number: leave blank
Special Code: leave blank

Please put all grids together in alphabetical order by teacher and return to your school office. I will return to pick up the completed tests on Monday, February 8th.
DIRECTIONS FOR MARKING NAME GRID

Print your name in the boxes above the columns of letters. Print as many letters of your name as will fit in the areas for last name, first name and middle initial. You may have to leave out some letters. Blacken the circle below each box that has the same letter as the box. Blacken in a blank circle at the top of the column for any unused spaces.

DIRECTIONS FOR MARKING ANSWER SHEET

- Use a #2 or 2½ lead pencil.
- Do NOT use ink or ballpoint pens.
- Complete the identification section as you are instructed.
- Be certain that each circle is filled in properly with a heavy black mark.
- If you erase, erase completely.
- Make no stray marks on this answer sheet.

SAMPLE

- Proper Mark
- Improper Mark
- Improper Mark
- Improper Mark

GRADE OR LEVEL

SEX

Male (M)

Female (F)

BIRTH DATE

MONTH

YEAR

SPECIAL CODE

NCS Trans:Optic F3519-5
<table>
<thead>
<tr>
<th>Statement</th>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I spend a lot of time daydreaming</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. I'm pretty sure of myself</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. I often wish I were someone else</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. I'm easy to like</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. My parents and I have a lot of fun together</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. I never worry about anything</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. I find it very hard to talk in front of the class</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. I wish I were younger</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. There are lots of things about myself I'd change if I could</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. I can make up my mind without too much trouble</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. I'm a lot of fun to be with</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. I get upset easily at home</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. I always do the right thing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. I'm proud of my school work</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. Someone always has to tell me what to do</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16. It takes me a long time to get used to anything new</td>
<td></td>
<td></td>
</tr>
<tr>
<td>17. I'm often sorry for the things I do</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18. I'm popular with kids my own age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>19. My parents usually consider my feelings</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20. I'm never unhappy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>21. I'm doing the best work that I can</td>
<td></td>
<td></td>
</tr>
<tr>
<td>22. I give in very easily</td>
<td></td>
<td></td>
</tr>
<tr>
<td>23. I can usually take care of myself</td>
<td></td>
<td></td>
</tr>
<tr>
<td>24. I'm pretty happy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>25. I would rather play with children younger than me</td>
<td></td>
<td></td>
</tr>
<tr>
<td>26. My parents expect too much of me</td>
<td></td>
<td></td>
</tr>
<tr>
<td>27. I like everyone I know</td>
<td></td>
<td></td>
</tr>
<tr>
<td>28. I like to be called on in class</td>
<td></td>
<td></td>
</tr>
<tr>
<td>29. I understand myself</td>
<td></td>
<td></td>
</tr>
<tr>
<td>30. It's pretty tough to be me</td>
<td></td>
<td></td>
</tr>
<tr>
<td>31. Things are all mixed up in my life</td>
<td></td>
<td></td>
</tr>
<tr>
<td>32. Kids usually follow my ideas</td>
<td></td>
<td></td>
</tr>
<tr>
<td>33. No one pays much attention to me at home</td>
<td></td>
<td></td>
</tr>
<tr>
<td>34. I never get scolded</td>
<td></td>
<td></td>
</tr>
<tr>
<td>35. I'm not doing as well in school as I'd like to</td>
<td></td>
<td></td>
</tr>
<tr>
<td>36. I can make up my mind and stick to it</td>
<td></td>
<td></td>
</tr>
<tr>
<td>37. I really don't like being a boy - girl</td>
<td></td>
<td></td>
</tr>
<tr>
<td>38. I have a low opinion of myself</td>
<td></td>
<td></td>
</tr>
<tr>
<td>39. I don't like to be with other people</td>
<td></td>
<td></td>
</tr>
<tr>
<td>40. There are many times when I'd like to leave home</td>
<td></td>
<td></td>
</tr>
<tr>
<td>41. I'm never shy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>42. I often feel upset in school</td>
<td></td>
<td></td>
</tr>
<tr>
<td>43. I often feel ashamed of myself</td>
<td></td>
<td></td>
</tr>
<tr>
<td>44. I'm not as nice looking as most people</td>
<td></td>
<td></td>
</tr>
<tr>
<td>45. If I have something to say, I usually say it</td>
<td></td>
<td></td>
</tr>
<tr>
<td>46. Kids pick on me very often</td>
<td></td>
<td></td>
</tr>
<tr>
<td>47. My parents understand me</td>
<td></td>
<td></td>
</tr>
<tr>
<td>48. I always tell the truth</td>
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<td></td>
</tr>
<tr>
<td>49. My teacher makes me feel I'm not good enough</td>
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<td></td>
</tr>
<tr>
<td>50. I don't care what happens to me</td>
<td></td>
<td></td>
</tr>
<tr>
<td>51. I'm a failure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>52. I get upset easily when I'm scolded</td>
<td></td>
<td></td>
</tr>
<tr>
<td>53. Most people are better liked than I am</td>
<td></td>
<td></td>
</tr>
<tr>
<td>54. I usually feel as if my parents are pushing me</td>
<td></td>
<td></td>
</tr>
<tr>
<td>55. I always know what to say to people</td>
<td></td>
<td></td>
</tr>
<tr>
<td>56. I often get discouraged in school</td>
<td></td>
<td></td>
</tr>
<tr>
<td>57. Things usually don't bother me</td>
<td></td>
<td></td>
</tr>
<tr>
<td>58. I can't be depended on</td>
<td></td>
<td></td>
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</table>
APPENDIX C

ABILITY GROUPING INTERVIEW QUESTIONS

PERSONAL DATA:

NAME
DATE
SCHOOL AND GRADE LEVEL TAUGHT
YEARS TEACHING

DO YOU GROUP YOUR STUDENTS BY ABILITY?

IF NOT: WHAT FORM OF GROUPING DO YOU USE?

IF SO:

WHY? HOW DO YOU DIVIDE GROUPS?

WHAT METHOD OF EVALUATION IS USED TO DETERMINE GROUP ABILITY? NUMBERS IN A GROUP?

CAN STUDENTS MOVE FROM ONE GROUP TO ANOTHER? HOW? HOW FREQUENT? DO THEY MOVE DOWN MORE THAN UP?

WHO DECIDES IF A STUDENT CHANGES GROUPS (Parent pressure? Student request? Punishment?)?
HOW OFTEN ARE STUDENTS EVALUATED TO DETERMINE CHANGE OF GROUPS?

HAVE YOU EVER MEASURED STUDENTS SELF-ESTEEM? HOW?

HOW DO YOU FEEL ABOUT THE SELF-ESTEEM OF YOUR STUDENTS IN REGARDS TO GROUPING STUDENTS BY ABILITY?

HOW DO YOU FEEL YOUR STUDENTS PROGRESS ACADEMICALLY?

HAVE YOU TRIED ANY OTHER METHODS OF GROUPING? IF SO: WHAT?

DO YOU USE WHOLE GROUP INSTRUCTION?

IF SO:

WHY? Someone told you to? It was your idea? You read an article?

DOES THIS WHOLE GROUP INSTRUCTION INCLUDE SOME TYPE OF GROUPING? WHAT KIND?
HOW ARE THEY GROUPED? HOW OFTEN DO YOU GROUP STUDENTS? HOW DO YOU DETERMINE GROUPING OF STUDENTS?

DO YOU EVER MEASURE STUDENTS SELF-ESTEEM? HOW?

HOW DOES WHOLE GROUP INSTRUCTION BENEFITS STUDENT SELF-ESTEEM? HOW?

DID YOU EVER USE ABILITY GROUPING IN YOUR TEACHING?

HOW DOES WHOLE GROUP INSTRUCTION IMPROVING ABILITY GROUPING ACADEMICALLY?

IMPROVING SELF-ESTEEM?

WHAT DO YOU FEEL IS MORE IMPORTANT FOR ELEMENTARY STUDENTS:

- THAT ALL STUDENTS LEARN?
• THAT ALL STUDENTS WORK WITHIN THEIR OWN ACADEMIC LEVEL?

• THAT STUDENT SELF-ESTEEM SHOULD BE A MAJOR FACTOR IN STUDENT LEARNING?

PLEASE EXPLAIN YOUR REASONS FOR THIS CHOICE.
| **Table 1** |

**ITBS NGE Scores 1989-92**  
**Reading, Math, Composites**  
**Grades 3-5**

### Reading

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<td>3</td>
<td></td>
<td></td>
<td>27.5*</td>
<td>38.0</td>
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<tr>
<td>4</td>
<td></td>
<td>25.7</td>
<td>38.6</td>
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<td>5</td>
<td>28.4</td>
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### Math

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<td>5</td>
<td>24.8</td>
<td>36.3</td>
<td>48.1</td>
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### Composite

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<td>5</td>
<td>27.8</td>
<td>39.0</td>
<td>49.7</td>
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*27.5 = second year, 7.5 months*
### Table 2

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<th>Effect size</th>
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<tr>
<td>Studies with same-age control groups</td>
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<tr>
<td>Arends &amp; Ford, 1964</td>
<td>Acceleration in math in grades 7, 8</td>
<td>2</td>
<td>7</td>
<td>1.29</td>
</tr>
<tr>
<td>Enzmann, 1961</td>
<td>Acceleration in math in grades 9–12</td>
<td>4</td>
<td>9</td>
<td>.30</td>
</tr>
<tr>
<td>Fox, 1974</td>
<td>Summer algebra program for grade 7 girls</td>
<td>.50</td>
<td>7</td>
<td>.46</td>
</tr>
<tr>
<td>Justman, 1953</td>
<td>Completion of 3 years of school in 2 years</td>
<td>2</td>
<td>7</td>
<td>.54</td>
</tr>
<tr>
<td>Klausmeier &amp; Ripple, 1963</td>
<td>Placement of bright older pupils from grade 2 in grade 4 after 1 summer session</td>
<td>.75</td>
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<td>Klausmeier &amp; Wiersma, 1964</td>
<td>Completion of 6 semesters of math in grades 9, 10</td>
<td>2</td>
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<td>Ludeman, 1969</td>
<td>Completion of grade 7 and 8 math in 1 year</td>
<td>6</td>
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<td>Montgomery, 1968</td>
<td>Accelerated program in grade 8–12 math</td>
<td>5</td>
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<td>Passow, Goldberg, &amp; Link, 1961</td>
<td>Acceleration in grade 7 and 8 math</td>
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<td>Rusch &amp; Clark, 1963</td>
<td>Completion of grades 5–8 in 3 years with 5 summer sessions</td>
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<td>Simpson &amp; Martison, 1961, Study I</td>
<td>Completion of grades 1 and 2 in 1 year</td>
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<td>Simpson &amp; Martison, 1961, Study II</td>
<td>Completion of grades 7–9 in 2 years with 3 summer sessions</td>
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<td>Simpson &amp; Martison, 1961, Study III</td>
<td>Enrollment in college courses during grade 12</td>
<td>1</td>
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<td>Studies with older control groups</td>
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<td>Adler, Pass, &amp; Wright, 1963</td>
<td>Completion of 5-year program in 4 years</td>
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<td>Culbertson, 1963</td>
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<td>Completion of grade 7 and 8 math in 1 year</td>
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<td>Placement of bright older pupils from grade 2 into grade 4 after 1 summer session</td>
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<td>Klausmeier &amp; Wiersma, 1964, Study I</td>
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<td>Klausmeier &amp; Wiersma, 1964, Study II</td>
<td>Completion of 6 semesters of math in grades 9 and 10</td>
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<td>Matlin, 1965</td>
<td>Completion of grades 4–6 in 2 years</td>
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<td>Morrison, 1970</td>
<td>Completion of grades 5 and 6 in 1 year</td>
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<td>Pevec, 1965</td>
<td>Skipping of grades by selected students</td>
<td>7</td>
<td>5</td>
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<tr>
<td>Rusch &amp; Clark, 1963</td>
<td>Completion of grades 5–8 in 3 years with 5 summer sessions</td>
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<td>Unzicker, 1932</td>
<td>Completion of grades 7 and 8 in 1 year</td>
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# ABILITY GROUPING

## Table 3

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<tr>
<th>Article</th>
<th>Grades</th>
<th>Location</th>
<th>Sample size</th>
<th>Duration</th>
<th>Grouping Criteria</th>
<th>Design</th>
<th>Effect sizes</th>
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<tr>
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<td>By achievement</td>
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<td>Randomized studies</td>
<td>1-3</td>
<td>Honolulu (low income)</td>
<td>262 (9 cl.)</td>
<td>2 yrs.</td>
<td>IQ, sch.</td>
<td>Random assignment to 3 tracts; Hg, XG, “Flexible”; XG classes grouped across grade lines</td>
<td>XG vs Hg; Rdg. -17; Math -52; Flex. vs. Hg; Rdg. -28; Math .00</td>
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<td>Barker-Lunn, 1970</td>
<td>2-5</td>
<td>England, Wales</td>
<td>5,500 (72 sch.)</td>
<td>4 yrs.</td>
<td>IQ, sch.</td>
<td>Matched schools in social class</td>
<td>Hg 0; Rdg/Eng. 0; Math 0</td>
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<td>Goldberg, Passow, &amp; Justman, 1966</td>
<td>5-6</td>
<td>New York City (middle class)</td>
<td>2,219 (86 cl., 45 sch.)</td>
<td>2 yrs.</td>
<td>IQ</td>
<td>Compared classes w/specific IQ ranges; students kept in same classes for 2 yrs.</td>
<td>Hg 0; Rdg (-); Math (-)</td>
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<tr>
<td>Borg, 1965</td>
<td>4-7</td>
<td>Utah</td>
<td>4-667 (22 cl.)</td>
<td>4 yrs.</td>
<td>Gen. sch.</td>
<td>Compared 2 districts, Hg vs AG</td>
<td>Gr. 4: Hg (+); Rdg 0; Math 0</td>
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<tr>
<td>Hartill, 1936</td>
<td>5-6</td>
<td>New York City</td>
<td>1,374 (15 sch.)</td>
<td>1 sem. (see design)</td>
<td>Gen. sch.</td>
<td>Matched groups—each group Hg 1 sem, AG 1 sem.; scores are gains</td>
<td>Hg -12; Rdg +0.5; Math +.01</td>
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<tr>
<td>Banchelness &amp; Boyer, 1932</td>
<td>4-5</td>
<td>Philadelphia</td>
<td>1,130 (10 sch.)</td>
<td>1 yr.</td>
<td>IQ</td>
<td>Schools matched, then students matched; scores are gains</td>
<td>Hg +18; Composite sch. +.21</td>
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<tr>
<td>Tobin, 1966</td>
<td>2-6</td>
<td>Marshfield, MA (rural)</td>
<td>989 (10 cl.)</td>
<td>2 yrs.</td>
<td>Rdg, sch.</td>
<td>Compared AG to year before AG introduced; only first 2 yrs. data used</td>
<td>Hg +13; Gen, sch. +.05; Rdg +13; Composite sch. -0.08</td>
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<tr>
<td>Breidenstein, 1936</td>
<td>2-6</td>
<td>Souderburg, PA (rural)</td>
<td>714 (11 sch.)</td>
<td>see design</td>
<td>—</td>
<td>Students in AG or Hg classes since 1st grade matched on IQ</td>
<td>Rdg +.03; Math +.07; Composite sch. +.07</td>
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<tr>
<td>Rankin, Anderson, &amp; Bergman, 1936</td>
<td>3-6</td>
<td>Detroit</td>
<td>600 (7 sch.)</td>
<td>2 yrs.</td>
<td>IQ</td>
<td>Schools matched on student sch.; scores are gains; Hg used no reg. groups; AG used mastery learning in math</td>
<td>Rdg +.11; Math +.03; Composite sch. +.13</td>
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<td>Daniels, 1961</td>
<td>2-5</td>
<td>England</td>
<td>521 (4 sch.)</td>
<td>3.5 yrs.</td>
<td>Gen. sch.</td>
<td>Schools matched, then students matched on IQ</td>
<td>Rdg/LA -25; Math -27; Rdg, sch. -10</td>
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<td>Bremer, 1958</td>
<td>1</td>
<td>Amarillo, TX (Anglo)</td>
<td>510</td>
<td>1 yr.</td>
<td>Rdg. readiness</td>
<td>Compared AG to yr. before AG introduced</td>
<td>Rdg +.03; Av. +.03; Lo +.06</td>
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<tr>
<td>Loomer, 1962</td>
<td>4-6</td>
<td>Iowa (rural)</td>
<td>490 (23 sch.)</td>
<td>1 yr.</td>
<td>IQ, gen. sch., judgment</td>
<td>Schools matched on gen. sch.</td>
<td>Hg -02; Av +.04; Lo +.06; Composite sch. -0.04</td>
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<tr>
<td>Flair, 1964</td>
<td>1</td>
<td>Skokie, IL (suburban)</td>
<td>441 (17 cl.)</td>
<td>1 yr.</td>
<td>Kst, test, prognosis</td>
<td>Schools matched on gen. sch.</td>
<td>V. Hi +54; Rdg +.03; Hi -21; Math -14; Av +11</td>
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<td>Morgenstern, 1963</td>
<td>4-6</td>
<td>Uniondale, NY (suburban)</td>
<td>119 (7 cl.)</td>
<td>3 yrs.</td>
<td>—</td>
<td>Schools matched on IQ</td>
<td>Hi -22; Rdg/LA +.15; Math +.06</td>
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</table>

**Key:**
- AG = Ability-grouped class assignment
- Hg = Heterogeneous class assignment
- XG = Ability grouping across grade lines
- (+) = Results clearly favor ability-grouped classes
- (-) = Results generally favor heterogeneous classes
- 0 = No trend in results
- (+) = Results generally favor heterogeneity classes
## COOPERSMITH SELF-ESTEEM INVENTORY

### SUMMARY OF TOTALS

**FEBRUARY 1993**

<table>
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<tr>
<th>School</th>
<th>Grade</th>
<th># of Students</th>
<th>General Self</th>
<th>Social Self-Peer</th>
<th>Home Parents</th>
<th>School Academic</th>
<th>Lie Scale</th>
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