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Rhonda R. Bonk
University of Northern Iowa

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Abstract

The dilemma of deciding the most effective means of grouping students for learning activities has been a controversial issue in education for many decades (Manning & Lucking, 1990). Traditionally schools have grouped students by achievement levels and/or perceived ability. Recently, however, ability grouping has been questioned in regard to its ability to provide quality and equitable education for all students, especially those placed in Iowa and middle-ability groups (French & Rothman, 1990).

An Examination of Within-Class
Grouping Arrangements to Replace
Traditional Grouping Practices
in Elementary Classrooms

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Rhonda R. Bonk
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Entitled: An Examination of Within Class Grouping Arrangements to Replace Traditional Grouping Practices in Elementary Classrooms has been approved as meeting the research paper requirement for the Degree of Master of Arts in Education.

Greg P. Stefanich

_4-26-93_
Date Approved

Director of Research Paper

Greg P. Stefanich

_4-26-93_
Date Approved

Graduate Faculty Adviser

Marvin Heller

_4-28-93_
Date Approved

Graduate Faculty Reader

Peggy Ishler

_4-28-93_
Date Approved

Head, Department of Curriculum
and Instruction

An Examination of Within-Class Grouping Arrangements to
Replace Traditional Grouping Practices in Elementary Classrooms

The dilemma of deciding the most effective means of
grouping students for learning activities has been a controversial
issue in education for many decades (Manning & Lucking, 1990).
Traditionally schools have grouped students by achievement levels
and/or perceived ability. Recently, however, ability grouping has
been questioned in regard to its ability to provide quality and
equitable education for all students, especially those placed in low-
and middle-ability groups (French & Rothman, 1990).

As a result, various alternative grouping arrangements have
come into focus in the past few years that claim to provide a more
equitable and success-oriented education for students of all
abilities. Yet, in 1987, according to French and Rothman (1990),
77-88 percent of all schools still utilize ability grouping. One
justification is that it creates groups of students who are alike in
learning needs allowing teachers to assume the students' academic
and social needs will be more clearly met (Slavin, 1987b).

A second reason teachers continue to support ability
grouping is that they are unaware of possible alternative grouping
arrangements that can be utilized within a heterogeneously
grouped classroom. By becoming more aware of alternative
methods of grouping, teachers are able to modify grouping

procedures to allow more flexible arrangements which better meet the needs of all students.

Third, teachers question the effectiveness of alternative grouping arrangements and how to implement them in their classrooms. Because ability grouping has been practiced in elementary classrooms for over a century, teachers are comfortable with the practice of grouping by ability. Undoing ability grouping presents schools with major challenges. Simply mixing students without making changes in organization, curriculum, and beliefs about students' capabilities is not the answer (Oakes, 1985).

Given the need to provide more equitable education for all students, as educators, we must examine our traditional methods of grouping students and how those methods affect the learning and the social-emotional development of students. We then need to employ alternative grouping plans that will better accommodate the learning needs of all the students in our classroom regardless of ability or background thus ensuring a more equitable education.

Statement of the Problem

Since the 1920s, American schools have organized instruction by ability grouping students (Oakes & Lipton, 1990). Educators have debated whether ability grouping is necessary and effective, or harmful and discriminatory. On one hand, grouping seems to be a logical way to deal with student differences, but yet teachers often feel uncomfortable in making grouping decisions

about students that could have far-reaching effects on their future. This paper summarizes research on ability grouping and describes four alternative grouping arrangements which should replace the traditional practice of ability grouping used in elementary classrooms.

The following four questions will be examined:

1. How does ability grouping affect the academic achievement and social-emotional needs of students?

2. Does ability grouping provide equitable educational opportunity for all students?

3. What are some alternative grouping arrangements that teachers could implement to replace ability grouping?

4. How can educators meet the challenge of implementing alternative grouping arrangements?

Review of the Literature

Beliefs about how students should be grouped for instruction are varied and often contradictory (Slavin, 1987b). As early as 1929, Luther Purdom referred to grouping as "the great mass of literature" and complained that grouping practices were too often based on personal impressions rather than hard evidence (Manning & Lucking, 1990; Slavin, 1988). Researchers have reported more than 700 studies on ability grouping, and yet, sixty years later, there is still much variance between educational research statistics and common school district practices (Slavin,

1988; Sorenson & Hallinan, 1986). The history of ability grouping illustrates these findings.

Ability grouping dates back to the last century when schools were pressed to provide an emerging industrial society with a trained work force already sorted by ability levels (Oakes & Lipton, 1990). The first reported practice of ability grouping began in 1867 in St. Louis, Missouri, when W. T. Harris implemented a plan of promoting groups of bright students quickly through the elementary grades. At the turn of the century, the Santa Barbara Concentric Plan became popular and is still used in many schools today. In this plan, each grade is divided into A, B, and C sections and each masters the same fundamentals for each subject but the As do more extensive work than the Bs, and the Bs do more work than the Cs (Kulik & Kulik, 1982).

Ability grouping continued to gain popularity with the onset of World War I. With the advent of I. Q. tests and achievement tests, ability grouping became the predominant means of arranging students during the 1920's and 1930's. Then for a period of time in the 1940's and 1950's, ability grouping declined (Winn & Wilson, 1983) because researchers found that grouping appeared to be beneficial only to the top students (Kulik & Kulik, 1982). However, in the 1960's ability grouping once again gained popularity coinciding with the increased public concern about academic achievement in mathematics and reading.

Ability grouping continues to be used in many American schools. However, the tide has gradually turned away from ability grouping because of concern for equal educational opportunities (Goodlad & Oakes, 1988). Researchers in the 1980s often focused on possible negative effects of ability grouping, especially for disadvantaged students, and all students in middle and lower ability groups in areas of achievement motivation and self-concept (French & Rothman, 1990; Kulik & Kulik, 1982). Because of this, educators are reexamining whether or not ability grouping practices provide equitable and quality opportunities for all children (French & Rothman, 1990; Goodlad & Oakes, 1988).

Homogeneous Grouping

Homogeneous grouping refers to grouping students for instruction where students' abilities are similar. More specifically, ability grouping implies some means of grouping students for instruction creating instructional groups that are as homogeneous as possible (Slavin, 1987). Underlying the concept of grouping is the assumption that if educators can create groups of students that are alike in learning needs, instruction will proceed more efficiently and effectively (Harp, 1989a).

Educators' reliance on ability grouping is based on several assumptions (Oakes, 1985): that students can learn better when grouped with students considered academically similar; that low-ability students will develop positive self-concepts when not forced

to compete with students of far greater capability; that teachers are better able to accommodate individual differences in homogeneous groups; and that grouping decisions can be made fairly and accurately on the basis of ability.

Academic Achievement

One of the arguments made by proponents of ability grouping is that students can learn better when grouped with students considered academically similar (Oakes, 1985). However, Slavin (1987b), in "A Best-Evidence Synthesis," concluded that the "overall" achievement effects of ability grouping in elementary schools cluster closely around zero for students of all achievement levels. If any benefits in achievement do occur, according to Slavin (1988), it is always in favor of the top students, and the remainder of the students appear to learn no more, and often less than if they had not been grouped. Abadzi (1984, 1985) reported in studies of the Fort Worth Texas Schools that some programs designed for high-ability students produced gains during the first year of implementation but did not produce gains or losses during the second year. This study suggests that the duration of ability grouping may be a significant factor in determining achievement gains.

When achievement gains accrue to high groups, it is at the expense of the lower achieving groups (Hiebert, 1983; Oakes & Lipton, 1990; Sorenson & Hallinan, 1986). Rowen and Miracle

(1983) agree that lower-ability students can suffer substantial academic losses and because of these losses, middle- and low-ability students can fall further and further behind as they progress through their school years (Barbour, 1990; Rist, 1970).

On the positive side of ability grouping, Slavin (1987b) concluded that ability grouping can show some achievement gains if the instructional level and pace are adapted to student performance and if regrouping is done for only one to two subjects a day. Students then would stay in heterogeneous placements the remainder of the school day.

Social and Emotional Effects

A second assumption made by the proponents of ability grouping is that the self-concepts of low-ability students suffer when students are forced to compete against students of much higher ability (Oakes, 1985). If this is the case, scores on self-concept measures would be higher for low-ability students when placed in homogeneous classes (Manning & Lucking, 1990). Research, however, does not support this conclusion (Dawson, 1987).

Although being placed in the high-ability group may enhance the self-concept of high-ability students (Kulik & Kulik, 1982), evidence suggests that ability grouping may adversely affect the attitude, achievement, and opportunities of students in lower-ability groups (Good & Brophy, 1991; Esposito, 1973; Hiebert,

1983; Riccio, 1985; Slavin, 1988). Young (1990) goes so far as to state that students who are regularly placed in low groups may become discouraged about their progress and therefore become less motivated to learn.

One of the largest studies on the effects of ability grouping on students' self-concept was conducted as part of The Study of Schooling (Goodlad, 1984), reported by Oakes (1985). Oakes stated that students in high-ability classes had more positive attitudes about themselves as well as higher educational aspirations than lower-ability students. Low ability students were more likely than other students to view themselves as not as well liked by others and as having many things about themselves they would like to change.

Studies that have looked directly at students' attitudes toward ability grouping show that low-ability students do not look favorably on their placement in low-ability classes (Dawson, 1987), and it may lead low-ability students to school misbehavior and eventually to dropping out of school altogether (Oakes, 1985; Rosenbaum, 1980). Students in low-ability groups often resent their placement, respond defensively, and refuse to engage in academic efforts to bring them success. Teachers, perceiving the negativity, may respond in ways that increase negative behaviors (Oakes, 1985). Good and Brophy (1991) go on to summarize:

Even if teachers assigned to low track classes do not have undesirable attitudes and expectations, they will find it difficult to establish effective learning environments in these classes because of defeatism, alienation, and flat-out resistance they are likely to encounter there (p. 407).

Peer interactions can also be influenced by ability grouping. Students tend to choose friends from among students whom they come in contact with during the school day and whom they perceive to be most like themselves. As a result, friendship choices may be limited to their ability group (Sorenson & Hallinan, 1985). This effect may have advantages as well as disadvantages for students' social development. It can promote positive social ties among students assigned to the same group. Also school personnel can use ability groups as an intervention strategy in helping isolated students to develop a social relationship. On the other hand, the assignment of students to ability groups can foster a stratified friendship network. Oakes (1985) also found that friendship choices can affect later educational choices such as high school curriculum choices and future aspirations.

Differential Instruction

A third assumption made by proponents of ability grouping is that teachers are better able to accommodate individual differences in homogeneous groups (Oakes, 1985). However, research studies have found that teachers interact differently with

students in high- and low-ability groups. After reviewing various studies conducted by researchers (Allington, 1983; Good & Brophy, 1991; Goodlad, 1984; Hiebert, 1983; Oakes, 1985; Sorenson & Hallinan, 1986), the following behaviors were indicated to be characteristic of low-ability groups:

1. criticizing more often for failure and providing less praise for success

2. calling on students to respond to questions usually at the knowledge level

3. allowing less wait time to answer before calling on another student

4. demanding less homework

5. interacting less verbally and nonverbally

6. less effective instructional methods utilized

7. curriculum limited to practice and drill

8. accepting distractions and spending more time disciplining

Low teacher expectations and the fact that low groups are labeled as "low" often result in a self-fulfilling prophesy, thereby contributing to a cycle of failure and lowered academic achievement and motivation (Good & Brophy, 1991; Good & Marshall, 1984). Because of this, students in low-ability groups generally show less interest in subject matter and school overall (Dreeban & Barr, 1988; Oakes, 1985).

In contrast, through the same studies (Allington, 1983; Good & Brophy, 1991; Goodlad, 1984; Hiebert, 1983; Oakes, 1985; Sorenson & Hallinan, 1986), the following characteristics were observed in high-ability groups:

1. less criticizing for failure and more praising for success
2. calling on students to answer questions and asking questions that require critical thinking
3. allowing more wait time and providing more cues
4. more verbal and nonverbal interactions
5. demanding more homework
6. better instructional methods utilized
7. curriculum based on application and higher-level thinking tasks
8. less time disciplining

Grant and Rotenberg (1986) found other advantages of being placed in high-ability groups: students work in environments more conducive to academic skills; have more opportunities to demonstrate competence; and practice more autonomous, self-disciplined modes of learning.

Several studies relating to reading illustrate differential instruction. Data collected from the 1988 Massachusetts Educational Assessment Program found that reasoning processes were emphasized more with high- than low-ability students (French & Rothman, 1990). For example, structural cues in reading were

stressed with lower achieving students while the evaluation of evidence formed a greater part of the curriculum in high-ability classes. In another study involving reading, Hiebert (1983) studied teacher behavior in homogeneously grouped reading classes and concluded that low-ability students spent more time on decoding tasks while high-ability students worked on word meaning. Similarly, low-ability students spent more time reading orally while higher-ability groups read more silently (Allington, 1983; Harp, 1989a). Oakes (1985), further indicated that low-ability students get a curriculum empty in terms of ideas.

Still another concern that Hiebert (1983) pointed out was that ability groups once assigned tend to be relatively permanent; teachers make very few, if any, changes in group membership after the first month of school (Weinstein, 1976). Weinstein added that the group to which a student is assigned has a significant effect on achievement regardless of previous performance. Not only can the self-concept of students in low groups decline, so can achievement. Because of this, the gap between what students learn and know in lower-ability groups increases each year. By high school, Oakes (1985) found this knowledge gap to be substantial, resulting in differential learning opportunities for the lower-ability students.

Multicultural and Socioeconomic Concerns

A fourth assumption made by proponents of ability grouping is that grouping decisions can be made fairly and accurately on the

basis of ability (Oakes, 1985). The idea that our schools operate a meritocracy is not confirmed in practice. The possibility of ability grouping resulting in a form of segregation warrants educators' attention and concern (Manning & Lucking, 1990). Teachers are often unable to free themselves of perceptions that lead them to assign students to ability groups on the basis of social criteria (Oakes, 1985). Various studies have indicated that a disproportionate number of students from minority families and lower socioeconomic status are placed in low-ability groups (Dawson, 1987; Good & Brophy, 1991; Goodlad, 1984; Kulik & Kulik, 1982).

In a study done by the Ann Arbor Michigan Public School System, it was found that while 46 percent of African-American students were placed in below-grade level reading groups in grades one through six, only 23 percent of all students were in these groups. Similarly, while only 23 percent of African-American students were placed in above-level reading groups, over 60 percent of all students were placed in these groups (French & Rothman, 1990).

Serious deficiencies have been outlined by the process many schools use to identify and place students in ability groups. A significant percentage of students may be misclassified because of imperfections of tests, the use of tests as the sole predictor of achievement, and placement procedures that are not sensitive to

race, class, gender, and language (Goodlad, 1984; Oakes, 1985). Over-reliance on test scores could mean students are grouped according to test score differences which could be very small compared to all the knowledge students could possess (George, 1988). For example, poor and minority students tend to enter school with inadequate reading skills, although they may have high cognitive skills. As a result, poor and minority students are being misplaced in low-ability classes.

Effective Ability Grouping Practices

While much of the recent research on ability grouping focuses on its negativity, many schools still use ability grouping. In a study conducted by Flood, Lapp, Flood, and Nagel (1992), of the 100 teachers surveyed, 44 percent believed ability grouping was "the best way to teach." Drawing from Slavin's (1987a) review of ability grouping in elementary schools, the following practices are recommended when ability grouping is used:

1. The primary grouping arrangement should be heterogeneous. Ability grouping is recommended on a limited basis such as for reading or math.

2. Homogeneous grouping should be based on skill levels.

3. Reassessment should be frequent and grouping plans flexible to accommodate regrouping.

4. The level and pace of instruction should vary to correspond to students' readiness and learning rates.

5. Groups should be few in number to allow adequate direct instructional time.

Heterogeneous Grouping

Heterogeneous grouping refers to groups of students organized with a mixture of learners of all abilities. In contrast to homogeneous grouping, it allows students to "experience" learners of all abilities, without calling attention to ethnicity or socioeconomic status. Proponents of heterogeneous grouping argue that it encourages teachers to be more sensitive to individual needs and that it provides a more democratic and realistic learning environment for all students (Esposito, 1973). Oakes (1985) also found that high-ability students do as well and low-ability students thrive on the improved conditions in heterogeneous settings. Thus, the academic level and self-concept of all students are raised.

The use of heterogeneously grouped reading classes is further supported by Eldredge and Butterfield (1986). They collected data in support of the notion that students can learn to read in heterogeneous groups and that there is value in mixed grouping of students without the fear of losses in achievement.

To achieve success for all students using heterogeneous grouping, educators have the responsibility to adapt the learning environment to meet the needs of individual students (Braddock II & McPartland; Manning & Lucking, 1990). Students should be rewarded on individual effort regardless of their starting points and

be able to demonstrate their competence through different avenues, not only linear-sequential modes. By allowing students individuality, the categorical labeling process that accompanies ability grouping can be eliminated (Riccio, 1985).

Alternatives to Ability Grouping

The overwhelming evidence that ability grouping fails to improve students' academic achievement and damages lower-ability learners' self-concepts illustrates the need for alternative grouping arrangements (Manning & Lucking, 1990). In exemplary schools across the nation, ability grouping is being used less and less as a grouping procedure. Instead, schools are experimenting with various grouping plans where students are heterogeneously grouped within the classroom. Evidence continues to mount that the strategies that work with the above-average students are the strategies most effective with below-average students as well (George, 1988).

Various grouping plans have been developed in recent years to accommodate learners of all ability levels within a classroom. In this paper, four alternative grouping arrangements used in reading will be examined: whole class/small group; flexible within-class grouping; cooperative learning; and paired grouping.

Whole class/small group instruction.

Often, when educators are faced with the negative consequences of ability grouping, their first alternative is whole

class instruction. Depending on how this practice is used will result in different outcomes for the learner. If all students in a class are expected to complete the same material, it is not possible to meet the needs of all students. Some material will obviously be too difficult for some and too simple for others (Fielding, 1992).

Using whole class instruction when the specific goal is to meet the needs common to all members of the class can provide a positive alternative to ability grouping (Goodlad, 1984; Oakes, 1985). Another advantage of whole class instruction is that it promotes more on-task behavior since the instruction is teacher-directed (Young, 1991). Phonics, comprehension, vocabulary building exercises, and initial presentation of new concepts are examples of exercises that are appropriate for whole class instruction (Anderson, Hiebert, Scott & Wilkinson, 1985; Weaver, 1990). Teachers reading aloud to students and students sharing ideas are other examples of whole class instruction which is effective (Fielding, 1992).

Effective teachers use a combination of whole group and small group instruction in their classrooms (Weaver, 1990). Dawson (1987) suggests the following guidelines when using whole class/small group instruction:

1. Whole class instruction should be used for initial presentation and practice of new concepts.

2. Large or small heterogeneous groups are recommended for teaching material not requiring prior knowledge.

3. Small heterogeneous learning groups should be used for practicing and reinforcing skills. This will enable high-ability students to assist low-ability students in mastering concepts. (p. 363)

Houghton Mifflin (1989) has designed a flexible grouping model to be used with whole class/small group instruction. In this model, whole class instruction is used to teach vocabulary, build background, activate prior knowledge, read aloud, and teach skills common to the needs of the whole class. Small groups are utilized in any of the following ways (a) cooperative, (b) paired, (c) interest, (d) skill, (e) topic, (f) peer-directed, (g) tutor-directed, (h) teacher-directed, and (i) independent. These small groups are formed homogeneously, heterogeneously, or socially. The kinds of activities the small groups engage in are: (a) paired reading, (b) guided reading, (c) repeated readings, (d) choral reading, (e) cooperative activities, (f) specific skill, and (g) independent work. After the small groups have met and their task is completed, the whole class meets to discuss, process, and extend the instruction. Writing can also serve as a follow-up whole class activity.

Some practical suggestions offered by Houghton Mifflin in managing flexible reading groups are to have many books in the classroom library, have students read and write daily, keep the

classroom well-managed, model what is expected, and provide a learning environment conducive to learning. Being flexible and willing to take risks to provide success for students of varying abilities and interests are important.

Cohen, in his book, <u>Designing Groupwork</u> (1987), effectively argues the case for groupwork and provides useful examples of how students are naturally drawn into learning from one another, regardless of differing levels of attainment. In groupwork, differences become assets rather than liabilities. Cohen views group work as particularly relevant to higher-order cognitive processes and to goals stressing democratic values. Groupwork also allows the members to use each other as resources, building not only academic skills but social skills as well.

<u>Flexible within-class grouping</u>

In flexible within-class grouping, students are placed in temporary groups based on their level of independence as learners. Grouped on a continuum from highly independent to highly dependent learners, students engage in a variety of tasks. Groups are not formed to deal with a given set of instructional materials as is often the case in ability grouping, but instead are formed and reformed to engage in a variety of tasks (Harp, 1989b).

Unsworth (1984) has identified the following set of principles to guide the use of flexible grouping:

1. There are no permanent groups.

2. Groups are periodically created, modified, or disbanded, to meet new needs as they arise.

3. At times there is only one group consisting of all pupils.

4. Groups vary in size from 2 or 3 to 9 or 10 depending on the group's purpose.

5. Group membership is not fixed; it varies according to needs and purposes.

6. Pupil commitment is enhanced when students know how the group's work relates to the overall program or task.

7. There should be a clear strategy for supervising the group's work. (p. 300)

When a group begins a task, the task must be clear and appropriate to the needs and interests of the students, there must be variety, and there must be clearly understood follow-up activities (Unsworth, 1984).

Learning groups may be formed on the basis of need or interest. Needs-based groups are temporary groups of students formed to deal with specific instructional needs (Fielding, 1992). Students are grouped together for short reinforcement lessons or practice sessions involving the specific skill identified as the "need." As students master the skill, the temporary needs-based group no longer becomes necessary (Young, 1990). For example, a teacher might notice eight students needing help learning to use context clues in reading, or five students needing practice summarizing.

These groups of students would meet temporarily until the skill level is mastered.

Learning groups may also be formed on the basis of social needs such as interest groups or friendship groups. Grouping students by interest provides students of differing abilities an opportunity to work together (Young, 1990). These groups, because they are temporary, can take many forms. For example, an interest group might consist of all the students who select a common topic to research or a particular piece of literature students choose to read. Students can often leap ability hurdles when sufficient interest and motivation exist (Anderson et al., 1985). When students are given the opportunity to choose a topic and design a project or complete a task that they find interesting, the students are applying knowledge to meaningful experiences as well as developing better attitudes toward school and learning. In interest grouping the number of groups and number of students in each group are not as important as in ability groups because the teacher's role is to serve as a guide and resource instead of providing direct instruction (Barbour, 1990; Young, 1990).

Unsworth (1984), in his article, "Meeting Individual Needs Through Flexible Within-Class Grouping of Pupils" demonstrates how a unit on horoscopes follows the principles of flexible within-class grouping. During this seven-day unit, learning groups are formed on the basis of interest, learning styles, and social needs.

Learning tasks are placed into three categories: teacher interactive, teacher supervised, and teacher independent. The activities include whole class introduction to the learning sequence, group investigations, and individual independent reading. Unsworth sees the key issue of flexible grouping as being the importance of professional educators maintaining a personal and individual response to the developing needs of young learners.

Flood, Lapp, Flood, and Nagel (1992) offer a flexible grouping arrangement that they find to be successful with heterogeneous groups of students. In their plan, there are three interactive sets of variables that play key roles in instructional decision making: basis for grouping; formats and leadership for grouping; and materials for grouping. A key component of the groups is that they should always encourage interactions among students as well as between the teacher and students.

The first category for consideration involves nine bases for grouping:

1. Sometimes students have a *need* for direct instruction in a skill.
2. Students who share the same *interest* may be placed together.
3. The quality of *work habits* may place students into heterogeneous groups.
4. *Knowledge of content* may put students in a group.

5. *Knowledge of strategies* can put certain students in discussion or problem-solving groups.

6. The *task/activity criterion* may dictate that certain students work together because they succeed best through certain kinds of projects.

7. *Social reasons* may help place leaders (or followers) in certain groups.

8. Sometimes *random selection* techniques such as numbering off are the most useful procedures.

9. *Student choice* may be the best basis for forming some types of learning groups. (p. 610)

The next group of variables includes possible formats for groups. Although teachers usually interact with students in all situations, they need not always be in directive positions. Groups may vary by their dimensions and also by their types of leadership. The six usual sizes of groups include: (a) individuals, (b) dyads, (c) small groups of 3 or 4, (d) large groups of from 7 to 10, (e) half-class groups of 15 or so, and (f) whole class groups. The three usual types of leadership include: (a) teacher-led, (b) student-led, and (c) cooperative groups in which the leadership responsibilities are shared among students or between teacher and students.

The other major category of variables involves the materials to be used by the groups. The same material for all groups is appropriate when the instruction is geared to meet the needs of all

the students such as in the initial introduction of a thematic unit.
Different levels of similar materials are appropriate when students
learn the same concepts but may benefit from the support of easier
readability or from reading about a subject in their first language.
Different themes within a topic may be appropriate, such as
learning about different characters in a story or learning about
different events during a historical period. Last, having materials
that represent different topics may be appropriate when individual
interests are taken into consideration.

Because flexible grouping is relatively new, more research
needs to be conducted to further clarify its strengths and
weaknesses. It is evident that flexible grouping holds promise for
the future in heterogeneously grouped classrooms. Successful
within- class flexible grouping will accommodate diverse interests,
learning rate, and learning styles of students in heterogeneously
grouped classrooms.

Cooperative learning.

Cooperative learning refers to teaching and learning activities
designed for heterogeneously grouped students who work toward a
group goal. Students working in these cooperative groups have
varying abilities, skills, and talents (Manning & Lucking, 1990).
Cooperative learning views student heterogeneity as a resource to
be taken advantage of rather than as a problem to be solved.
Students are expected to share a broad range of perspectives and

understandings to help one another master academic content (Slavin, 1987a).

Cooperative learning methods vary in their basic structures. Some, such as Jigsaw Teaching and Group Investigation, assign students specific tasks within a larger group task. In others, students work together to complete a common group product. A third category consists of methods which students study and are rewarded on the basis of achievement of all group members. Student Teams-Achievement Divisions (STAD) is an example of this category.

The idea behind cooperative learning is that if students are rewarded on the performance of a group or a team, they will be motivated to help and encourage one another to achieve (Slavin, 1989). Slavin found that two conditions are essential if achievement effects are to be realized. First, the cooperating groups must have a group goal that is important to them, and second, the success of the group must depend on the individual learning of all group members. There must be individual accountability as well as group accountability. In the model developed by Johnson and Johnson (1989), five basic elements are essential for cooperative learning to be successful for all students. These are (a) positive interdependence, (b) face to face interaction, (c) individual accountability, (d) social skills, and (e) group processing (p. 80).

Reviews of cooperative learning (Slavin, 1987a, 1989) indicate that if the above conditions are met, cooperative learning leads to increased student achievement, not just for less able students but also for those who are average and above average. In a review of more than 50 research studies, Harp (1989b) concluded that cooperative learning groups consistently achieved more than students in traditionally structured classes. In addition to enhancing achievement, cooperative learning produces positive effects on attitudes and self-concept, improves social acceptance, increases student friendships, and increases the ability of students to work effectively with others (Slavin, 1987a; 1989).

Johnson, Johnson, and Holubec (1988) suggest the following steps for teachers implementing cooperative learning methods:

Objective

1. Specify academic and collaborative objectives

Decisions

2. Decide the size of the groups

3. Assign students to groups (hetrerogeneously)

4. Arrange the room so there is clear teacher access to each group and group members can communicate effectively

5. Plan instructional materials to promote interdependence

6. Assign roles to ensure interdependence

7. Explain the academic task

8.   Structure individual accountability

9.   Structure intergroup cooperation

10.   Explain success criteria

11.   Specify desired social behaviors

12.   Structure positive goal interdependence, peer
      encouragement, and support for learning

Monitoring and Intervening

13.   Monitor student behavior

14.   Provide task assistance

15.   Intervene to teach collaborative skills

16.   Provide closure to the lesson

Evaluation and Processing

17.   Evaluate quality and quantity of students' learning

18.   Assess how well the group functions (p. 2:38-2:39)

One of the most effective forms of cooperative learning for enhancing students' basic skills combines cooperative learning with within-class grouping. Cooperative Integrated Reading and Composition (CIRC), is a comprehensive program for teaching reading and writing in the upper elementary grades (Slavin, 1987b). In CIRC, students work in mixed-ability teams on a series of reading activities, such as reading aloud to one another, reading comprehension, decoding, vocabulary, and spelling. In writing, the students engage in peer response groups in a writing-process model. Achievement gains from CIRC have been demonstrated on

standardized tests of reading comprehension and language. In a 24 week study, CIRC students gained 64 percent of a grade equivalent more than control students (Slavin, 1987b). Significant improvements were also found on oral reading measures and in writing samples.

Madden (1988) illustrates the successful use of cooperative learning by implementing collaborative or cooperative reading teams into his reading class. In these heterogeneous groups of three or four, students vary in reading ability and need. They are formed to help students improve their attitudes and abilities toward reading. The students are directed to create language experience stories; read and discuss certain kinds of books together; organize and prepare presentations; and prepare various types of projects. Some advantages to cooperative reading teams are that students belong to several different groups of varying abilities and interests, and they free the low-ability student of the ego-deflating stigma which is often accompanied by the "low" group in reading. At its best, cooperative learning has positive social and cognitive benefits for students of all abilities.

<u>Paired grouping</u>

Paired grouping is a form of flexible cooperative grouping where one student is paired with another student. It can take the form of cross-age tutoring, peer-tutoring, or dyads.

Cross-age tutoring refers to older students working with younger students. For example, teachers may arrange for fifth- or sixth-grade students to tutor first- or second-grade students. Cross-age tutoring generally has positive effects on both the attitudes and achievement of the students involved. These outcomes are likely to occur not only for those who receive the instruction, but also the tutors who provide it. This arrangement exemplifies the truism that we master material more thoroughly when we teach it to someone else than when we merely respond to it as learners (Good & Brophy, 1991).

The tutors' achievement gains may also be attributed to improved attitudes. Tutors often respond very positively to their responsibilities. The tutoring experience may cause underachievers to take their own work more seriously, or cause antisocial students to be appreciative to the interaction of others.

The role of the tutee also has potential benefits. Interactions with tutors provide opportunities for tutees to take a more active role in their learning. It also provides a change of pace from typical learning methods. Another benefit of cross-tutoring is that student tutors may use language or examples that are more easily understood by students. Overall, student tutoring is more likely to be successful when used to provide supervised practice and follow-up to instruction originally presented by the teacher rather than when it is expected to stand on its own (Good & Brophy, 1991).

Peer tutoring refers to students being tutored by classmates. Studies involving peer tutoring have found positive gains in achievement and in the affective domain for the tutor and the tutee (Anderson et al., 1985). Teachers, however, need to create a mental set that all learn from one another because peer tutoring "officially" identifies the tutee as needing help on the material tutored. Good & Brophy (1991) provide the following guidelines in handling peer tutoring by classmates:

1. definite times of the day should be set aside for tutoring
2. specific assignments need to be outlined
3. allow a tutor to work with one or two tutees about two weeks
4. tutors should not be asked to administer real tests to tutees. The purpose is for cooperative sharing
5. all students in the room at some time should be tutors and all should be tutees
6. pairing of best friends is often unwise
7. communicate to parents that all students both tutor and be tutored by classmates (p. 424-425)

It is important to stress that the goal of peer tutoring is for all students to learn as much as they can and that the measure of success is how we compare our past performance rather than how students compare to others in the class (Good & Brophy, 1991).

Dyads are another type of paired grouping. Dyads consist of two students with varying abilities assisting each other on a learning task. In a study by McDonald, Larson, Danserau and Spurlin, cited by Pratt and Mosesner (1990), three experiments were conducted using student dyads. Within the dyads, each student read the same part of a particular passage. One student summarizes orally from memory what has been learned. The other student serves as the listener who corrects errors in recall and aids the other student in organizing the material. The partners then switch roles. The results found that the pairs using dyadic learning outperformed students who implemented their own pair learning method and students with no specific instruction.

A further study conducted by Eldredge and Quinn (1988) showed that students involved in dyad reading made greater achievement gains in comprehension and vocabulary than matched controlled students. The researchers speculated that dyad reading might help poor readers focus on important aspects of the text, free them from the decoding burden, and speed up decoding so they can give more attention to the text message. Even though more research is needed on dyad grouping, teachers are encouraged to use it as an alternative approach to supplement reading.

Effective Alternative Grouping Practices

Research on effective teaching practices and student achievement indicates that more effective teachers use a variety of grouping patterns within their classrooms (Barbour, 1990). Articles by various educators (Berghoff & Egawa, 1991; Gauthier, 1990; Keegan & Shrake, 1991; Pardo & Raphael, 1991; Reutzel & Cooter, J., 1991;) suggest that teachers are finding success with various grouping plans incorporated into classrooms. The following are four specific examples of effective flexible grouping practices.

Lane Gauthier (1990) implemented a flexible grouping plan composed of interest grouping, cooperative learning, and whole-class discussion to improve student comprehension competencies. His five-step plan includes: (a) discovering student interests, (b) categorizing student interests and forming groups, (c) creating group activity choices, (d) choosing and completing activity choices, and (e) engaging in intergroup discussion. Gauthier sees flexible grouping as enhancing students' abilities to make meaning out of dynamic group learning situations.

Suzi Keegan and Karen Sharake (1991) suggest literature study groups as an alternative to ability grouping. In their flexible grouping plan, cooperative learning, interest grouping, and independent study are used to allow students to discover what they know, to extend their thinking, and to develop strategies to allow

them to become lifelong readers. Four heterogeneous groups are formed to meet periodically and discuss interest-selected novels. Reading, writing, and discussing are essential components of literature study groups.

The fact that literacy is a lifelong learning process which students are engaged in regardless of differing abilities or backgrounds is the philosophy upon which Beth Berghoff and Kathryn Egawa (1991) base their flexible grouping plan. Their grouping plan makes use of whole group learning, small groups, pairs (dyads), and independent work. Students are invited to spend time each day doing independent learning; small group questioning, reporting, writing, and observing; and whole group sessions dealing with reading, sharing, and listening to others.

Ray Reutzel and Robert Cooter, Jr. (1991) described a solution to traditional grouping called "The Reading Workshop." It is made up of five main components used each day in reading. Sharing time is a time when teachers share new discoveries in literature or spark interest in free reading selections. The mini-lessons are short teacher-instigated whole group instructional sessions for demonstrating reading strategies and preparing students to read more successfully and independently. Topics are drawn from observed needs of students, teacher-selected skills from the scope and sequence, and prereading activities that assist students with new books they choose to read. State-of-the-class is

a three to five minute block of time when students inform the
teacher of their progress. Self-directed reading and response in
involves self-selected reading, literature response, and individual
reading conferences. Each day, one response group meets to
respond to a chosen piece of literature or work or related projects.
The other students continue to read silently. Each day, the
teacher meets with two students for individual reading
conferences. The last few minutes each day is a closing time when
students may share projects, books, or related activities with the
whole class. Reutzel and Cooter, Jr. report that the students using
the Reading Workshop experience increased involvement, more
reading success, and are taking greater control of their own
learning. These examples provide specific ideas for exploration and
implementation of flexible grouping practices as well as further
evidence of the success of such methods.

<div align="center">Summary, Conclusion, and Recommendations</div>

<div align="center">Summary</div>

The review of the literature reveals that ability grouping does
not achieve the intended purpose of improving the delivery of
education for the vast majority of students. A great deal of
research, both historical and contemporary, indicates that ability
grouping can create serious problems for students that are social
in nature but cognitive in effect (Hiebert, 1983). Research suggests
that when ability grouping is used, the quality of education in low-

ability groups is significantly inferior to the quality of education in high-ability groups. Kulik and Kulik (1982) conclude that the longer the intervention, the more recent the study, and the better the research methods, the less evidence there is that students learn more when grouped by ability.

Research has also shown that ability grouping can perpetuate social and economic inequalities. The placement of poor and minority students in low-ability groups denies them the opportunity to achieve their full academic potential. Also, the disproportionate number of poor and minority students in low-ability classes suggests that student differences are misunderstood and individual strengths overlooked when ability groups are formed.

For grouping to benefit students, each student's needs must be determined individually. Alternative grouping arrangements designed to meet the diverse needs of varying abilities of students can provide a solution to problems associated with ability grouping. Successful within-class grouping plans such as whole class/small group instruction, flexible grouping, cooperative learning, and pair grouping offer some alternatives. However, the transition from homogeneous grouping to heterogeneous grouping of students in their classrooms, is still not taking place in the majority of our nation's schools.

Conclusion

Grouping of students has been a subject of controversy in the past and will probably continue to be a topic of debate in the future. However, after reviewing the literature on ability grouping and its effectiveness, there is definitely a need for educators to look for more effective ways to ensure more equitable educational opportunities for all students. Alternative grouping arrangements within a heterogeneously grouped classroom may be the answer. Making the transition from homogeneous grouping to more temporary flexible heterogeneous grouping will not be an easy task.

Many teachers who are happy with ability grouping will not be eager to change grouping arrangements. Heterogeneous grouping does demand more of teachers; even good classroom managers may be temporarily overwhelmed by extremely heterogeneous classes (Emmer, 1984). Clearly, teachers will need incentives, encouragement, time, and training to move toward heterogeneous instruction.

In an article for the National Education Association, Jeannie Oakes, cited by Lake (1988), suggests the following principles on which to design heterogeneous grouping arrangements:

1. Create a new conception of ability; abandon the traditional notion that academic ability and social destiny are fixed and that some students simply cannot go far.

2. Develop a curriculum rich with meaning. When students can grasp the meaning of relevant, real-life content, they can more readily master needed skills. <u>Caught in the Middle</u> (Fenwick, 1987) suggests the curriculum be organized by content or themes, rather than skill sequences.

3. Use "interactive classroom organization" with active learning, flexible student work groups, projects that draw on many student skills, and criterion-referenced evaluation. (p. 8-9)

In an article entitled "Beyond Ability Grouping," Margaret Dawson (1987) offers more research-based suggestions, such as:

1. Base instruction on heterogeneous grouped classes with a preponderance of high and middle ability learners. Use ability grouping in limited, temporary situations.

2. Within classes, use small heterogeneous learning groups to allow students to practice skills and solve problems. Whole class instruction may be used for presenting information.

3. Reassess and regroup students frequently.

4. Form groups on criteria other than ability, such as interest groups. (p. 362-363)

There is probably no one alternative grouping plan that is better than the others for all teachers in all classrooms. The

literature relating to successful alternative grouping arrangements suggests that success lies in the flexibility that alternative practices have to offer. Because no two teachers teach exactly alike and no two classes function exactly the same, teachers need to use a variety of grouping patterns that are temporary, flexible, democratic, and nondiscriminatory. Whole class/small group instruction, within-class flexible grouping, cooperative learning, and dyads all have their place in today's heterogeneously grouped classroom.

Recommendations

The debate over grouping is no longer a question of should we group students by ability, but what should we do in its place. Even though there have been over 700 research studies conducted on ability grouping, very few studies have been done on flexible alternative grouping arrangements.

Articles written by educators provide incentives for teachers to try alternative practices. However, until some statistical results are available on the "why and under what conditions" grouping practices provide the best learning experiences, many educators will remain skeptical. Schools, administrators, and teachers make grouping decisions, and these decisions need to be based on reliable evidence. Research studies can provide this data. Also, if researchers can identify within-class grouping arrangements that provide equitable education as well as show cognitive and social

gains, it would be a major reform in our educational system without much expense to school districts.

The challenge for educators is to become risk-takers and to experiment with different grouping arrangements in heterogeneously grouped classrooms. Teachers need to take a close look at the grouping arrangements used in their classrooms regarding academic achievement, social needs, and equity of educational opportunities. Second, teachers need to become aware of alternative grouping practices to consider implementation within their classrooms without major changes in curriculum. Third, teachers need in-service opportunities, time, and additional resources to make the transition to more desirable grouping arrangements go smoothly. Flexible grouping, when implemented to meet the needs of students regardless of ability or background, can provide effective and equitable education for all students.

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