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ABSTRACT

Ability grouping and the tracking of students have become traditional in the U.S. education system. In 1893 the National Education Association (NEA) demanded that every subject taught in secondary school be taught in the same way; but by 1918, the NEA supported academic tracks for some students and vocational tracks for others. Since then, the debate over tracking and ability grouping has continued, and arguments on both sides of the debate have remained essentially the same. Rosa Lee Weaver, in a 1990 report, summarized the argument of proponents of ability grouping that grouping is necessary to individualize instruction and accommodate the diverse needs of students. Advocates of ability grouping have been particularly concerned about the negative effects that heterogeneous classes might have on high achievers who would benefit from ability-grouped situations. On the other hand, opponents of ability grouping have been concerned about the negative effects of the practice on low achievers (low self-esteem, lower aspirations, and negative attitudes toward school) who might be denied access to high quality instruction. The pro-grouping argument has been primarily concerned with the issue of effectiveness, while opponents to grouping have been concerned with equity. Research on effective schools has identified high teacher expectations and students' expectations of themselves as essential for academic achievement. How students view themselves does affect their academic achievement. (Contains 22 references.) (SLD)

WHAT RESEARCH SAYS ABOUT ABILITY GROUPING AND ACADEMIC ACHIEVEMENT

James A. Nicholson

Since when did ability grouping and tracking of students become traditional in our education programs? Education historians mark the turn of the century as the period in which grouping and tracking became an integral part of American education. A research report by Black (1992) found that two reports from the NEA (National Education Association), published 25 years apart, reflected an about face on the issue of student tracking. In 1893, the NEA demanded that every subject being taught in secondary school should be taught in the same way and to the same extent to every student taking the subject. But by 1918 the NEA supported academic tracks for some students and vocational tracks for others. Subsequently, high schools reversed their philosophy and were by then determining (depending on the school's assessment of the student's abilities) whether a student would study algebra or auto mechanics and whether students, for example, would eventually take dictation, work on the railroad, or practice medicine.

One of the strongest arguments in favor of ability grouping was the effect that such grouping had on the curriculum. With ability Grouping, the curriculum was adjusted to the aptitude levels of the bright, average, and slow-learning students, i.e., when students were homogeneously grouped, bright students were given a special curriculum, average students were given the regular curriculum, and slow-learning students were given a curriculum which was compatible to their needs and aptitude level.

Another argument in favor of ability grouping related to the advantages of such grouping for bright students, in particular. Gallagher (1993) reported that ability grouping was especially helpful to brighter students who were able to participate in accelerated learning programs, specifically designed for gifted students, without being held back in class by students who learn at a slower pace.

A distinction was made by Gallagher between "tracking" and "ability grouping" which are often used interchangeably. The term "tracking" refers to the practice "layering" an age group into separate classes based on ability or achievement. On the other hand, "ability grouping" generally refers to the identification of students for the purpose of providing them with a differentiated curriculum compatible to their aptitude level. Gallagher reported that "tracking" should be avoided because many low-track students fostered low self-esteem, lowered aspirations, and negative attitudes toward school.

He also noted that a disproportionately high number of black and Hispanic students were assigned to special education programs with students who were classified as learning disabled or emotionally disturbed. He attributed this to the fact that a disproportionate number of blacks and Hispanics had failed in the early grades of their regular education programs and were subsequently referred in larger numbers to special education programs. Gallagher also found that a disproportionate number of Asian students were found in programs for gifted and talented students.

Gallagher concluded that the reason for the disproportionate number of black and Hispanic students in special education programs and Asian students in programs for gifted students was that the former groups did not spend as much time on their academic lessons as did other racial groups in the society that were outperforming them. On the other hand, Asian students seemed to work harder and put in longer hours on academics than other students with whom they were competing. He contributed this disparity to social class and cultural influences.

A study by Bridge, Judd, and Moock (1979), which summarized he opinions of educators who opposed ability grouping, argued that grouping children according to ability perpetrated social class and racial segregation.

There are several assumptions made by proponents of ability grouping regarding the advantages of grouping relative to academic achievement. These assumptions were summarized in a comprehensive study made by Goldberg, Passow, and Justman (1969):

1. The average ability level of the class will prompt the teacher to adjust materials and methods and to set appropriate expectations and standards.

2. In the absence of ability extremes, each pupil can receive more teacher time and attention.

3. When the class ability is narrowed, the children are faced with more realistic criteria against which to measure themselves. They compete with their own peers and advance at their own rate when working with others of similar ability. The more capable students are challenged, while the less capable can work at a slower pace without being discouraged.

4. Class manageability and pupil and teacher comfort are enhanced with ability grouping. These, in turn, result in higher academic achievement.

The Goldberg's, et.al. study was based on I.Q. scores students in the fourth grade. Pretests and posttests were administered to

determine the effect of ability grouping on academic achievement, social and personal relations, and interests and attitudes of intermediate grade children. The conclusions of their study were:

1. Simply narrowing the ability range, without specifically designed variations in program for several ability levels, does not result in consistently greater academic achievement for any group of pupils.

2. In the lower-ability levels, narrowing the ability range caused teachers to set lower expectation standards for students. Teachers generally tended to underestimate the capabilities of pupils in lower-track courses.

3. Most teachers found more success in teaching a given subject to several ability levels simultaneously than in teaching all subjects to narrow-range classes.

4. There was no evidence that special grouping procedures accompanied by special methods, materials, content, etc. would not be successful--that any pupil grouping should follow logically from the demands of the instructional program. In general, their conclusions substantiated the findings of Wilcox (1964) whose study, like the Goldberg's, et. al. (1966) study, found that in predominately middle-class elementary schools, narrowing the ability range in the classroom on the basis of some measures of general academic aptitude will by itself (in the absence of adaptations of content and method) produce little positive change in the academic achievement of pupils at any ability level.

A meta-analysis of research studies on ability grouping was done by Bryan and Findley (1970). Even though this comprehensive study was a review of more than fifty years of research on ability grouping, the major issue of whether ability grouping was effective as an organizational technique was inconclusive as evidenced by this summary statement:

> Briefly, we find that ability grouping...shows no consistent positive value for helping students generally, or particular groups of students, to learn better. Taking all students into account, the balance of findings is chiefly of no strong effect, either favorable or unfavorable. Among the studies showing significant effects, the slight preponderance of evidence showing the practice favorable for the learning of high ability students is more than offset by evidence of unfavorable effects on the learning of average and low ability groups, particularly the latter. Finally, those instances of special benefit under ability grouping have generally involved substantial modification of materials and methods, which may well be the influential factors wholly apart from grouping (p. 126).

In spite of conflicting research findings as to the benefits of ability grouping, the widespread use of the practice continues in our schools. Wilson and Ribovich (1973) reported a study in which teachers were surveyed to determine their knowledge of ability grouping. Two-thirds of the teachers surveyed were found to have no knowledge of ability research findings, yet 92 percent felt that ability grouping was beneficial and 74 percent practiced it.

Ability grouping has been used in elementary schools, sometimes as early as kindergarten. Decisions to place children in groups at the primary grade level were often made on the basis of a primary teacher's determination of a child's ability which might have been made largely on the basis of the child's family background, language skills, appearance, and ability to follow directions. Yet, research studies indicated that placement decisions in the primary grades had an enormous impact on the child's academic achievement and adjustment. For example, Rosenthal and Jacobsen (1968) found that students tended to achieve at the levels teachers expected of them (a self-fulfilling prophesy).

A research study conducted by Reuman (1989) comparing math achievement levels of sixth-graders found that ability grouping raised high-achievers' achievement expectations, math grades, and tendency to make comparisons with a classmate who was worse at math. On the other hand, ability grouping was found to lower low-achievers' achievement expectations and math grades while raising their tendency to make comparisons with a classmate who was better at math.

Researchers are in almost unanimous agreement on one of the potential hazards of ability grouping, i.e., grouping students by ability had negative effects for low-achievers (loss of self-esteem, lowered aspirations, and negative attitudes toward school). The names that teachers gave to high, middle, and low-ability groups probably indicated how they felt about the students belonging to one of those groups. Black (1992) reported that names such as "eagles" or "aces" were normally given to high-ability groups, whereas, students in low-ability groups were given names such as "crows" or "zeros." Also, it wasn't long before students realized who teachers were referring to when they bragged about "the good kids" or "the cream of the crop" or when they complained about "dummies," "blockheads," "zombies," or "the bottom of the barrel." It didn't take long before students were giving themselves the same labels and students in the lower-ability groups loss self-esteem. What were the long-term effects of sorting and labeling students? Black (1993) reported a longitudinal study of junior high school students conducted by a University of Michigan research group which found, once again, that students assigned to low-ability math classes consistently displayed lower self-esteem. Over a period of time, those students had misbehavior problems and were more likely to drop out of school.

Still another negative effect of ability grouping is the "Locked-in" feeling that most low-achievers seemed to have regarding their achievement level, expectations, and aspirations. Rosenbaum (1976) noted that ability grouping usually translated into fixed grouping for most students involved in the process. Rosenbaum observed that whereas a few students from time-to-time would be placed in a lower-ability level (i.e., moved from high-level to middle-level or from middle-level to low-level), students almost always stayed at the same level they were originally assigned. This was especially true for those at the lower-level who were probably stuck there for the remainder of their schooling.

Although proponents of ability grouping contend that low-achievers can experience success and improve self-concept when grouped according to ability, Dyson (1967) reported a study relating both achievement and self-concept to ability grouping. He found no significant differences in student self-concept as a result of the level of ability grouping.

Slavin (1987) reviewed research on ability grouping in elementary schools. He found that assigning students to homogeneous classes on the basis of general ability or past achievement does not enhance their achievement. He concluded that grouping students for reading and mathematics "can be instructionally effective if the level and pace of instruction is adapted to the achievement level of the regrouped class and if the students are not regrouped for more than one or two different subjects (p. 299)."

On the other hand, Kulik and Kulik's (1982) meta-analysis findings tended to differ with researchers who were critical of ability grouping. They reported small positive effects on achievement for high-ability students and concluded that "the effect of grouping is near zero on the achievement of average and below average students; it is not negative," and "students seemed to like their school subjects more when they studied with peers of similar ability, and some students in grouped classes even developed more positive attitudes about themselves and about school" (p. 420).

Although the courts have ruled in many cases against the practice of racial segregation in schools, few research studies have addressed the issue of how ability grouping affects racial and socio-economic segregation. Coleman (1966) reported a widespread use of ability grouping throughout the nation, indicating that 32 percent of all black children were assigned to the lowest track or classes compared to 24 percent of white children.

A research report by Finn (1967) found that a number of studies, concerning the relationship between ability grouping and racial and/or socio-economic status, concluded that this practice often resulted in a self-fulfilling prophesy. Studies indicated

that non-white and low socio-economic students (who comprise the majority of students in the low groups) often limit their efforts to the teacher's expectations for the group as a whole. Therefore, students in the low-ability groups were typically not exposed to creative and independent learning activities commonly available to students in the high-ability groups. It was suggested that ability grouping discriminates against non-white and low socio-economic students.

Esposito (1973) reported in her review of the literature on ability grouping that studies by Kariger (1962), Mehl (1965), McPortland (1968), and Mayeske (1970) clearly indicated that the practice of homogeneous grouping reinforces and perpetuates the separation of children along racial and socio-economic lines.

Black (1993) reported that high-track students (tracking and ability grouping were used interchangeably by Black) often took eighth-grade algebra or high school calculus which were not available to students who attended schools that served large numbers of poor and minority students.

The arguments on both sides of the issue of ability grouping have remained essentially the same since 1900. A report by Weaver (1990) summarized that proponents of ability grouping have argued that grouping was necessary to individualize instruction for students and to accommodate their diverse needs. She found that advocates had been particularly concerned with the negative impact that heterogeneous classes had on high-achievers who would otherwise have benefited from having to compete with other high-achievers in a homogeneous (ability grouped) class setting.

On the other hand, opponents of ability grouping have been concerned with the negative effects of the practice on low-achievers who developed low self-esteem, lower aspirations, negative attitudes toward school, and were denied access to high-quality instruction. They were also opposed to the practice on the basis that ability grouping undermine social goals of equity and fairness in our society.

The pro-grouping argument has been primarily concerned with the issue of effectiveness, whereas, the anti-grouping argument has been primarily concerned with the issue of equity.

During the past decades research on effective schools has revealed two important criteria: teacher expectations and student expectations. Teachers should have high expectations if they really want their students to be academically successful and to derive and maintain high self-esteem from their educational experiences.

Teachers' expectations of students are made evident by the manner in which they interact with students in the class. But how students perceive their own ability will ultimately impact on their academic achievement and self-esteem.

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