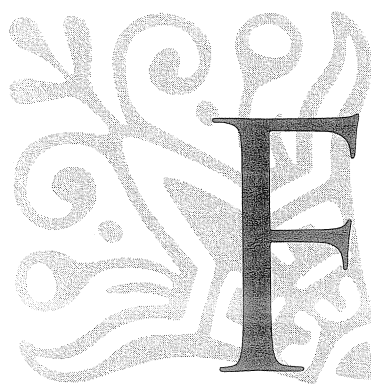


FLEXIBLE GROUPING



Flexible grouping of students within elementary classrooms promotes achievement, especially in mathematics and reading. The achievement effects are positive for high-ability students, as well as average and low-achieving students. Cross-graded grouping in reading (often called the Joplin Plan) is also effective in promoting achievement. Other kinds of flexible grouping such as pull-out programs for talented children, cooperative learning in the heterogeneous classroom, and cluster grouping of talented students in a grade-level classroom show differing effects depending upon the classroom context and the curriculum accompanying the grouping strategy. Schools that group by ability between classes display a range of adaptations but tend to make decisions based on prior achievement in a particular school subject rather than on general ability.

WHAT WE KNOW

Few instructional practices generate more discussion than grouping. Some studies have produced some consistent patterns, but others are frequently ambiguous and influenced by the historical period in which the study took place (Kulik, 1992). In many of the studies, high-ability or high-achieving students are not the focus of concern; however, there are points of agreement among various reviews (Kulik & Kulik, 1992; Loveless, 1998; Rogers, 1991; Slavin, 1987). These areas of agreement are the basis for current best practices.

Flexible Grouping in the Elementary Classroom

As reported in meta-analyses from multiple authors (Kulik & Kulik, 1991; Rogers, 1991; Slavin, 1987), within-class grouping of students in elementary classrooms results in higher achievement than whole-class instruction in the heterogeneous classroom. Loveless (1998) compared the effect sizes for the Kulik and Slavin meta-analyses and found that both reported increased achievement for all students whether they are high-, medium-, or low-achieving in the within-class grouping pattern. In the comparative summary provided by Loveless, the effect size reported by the Kuliks was +.30 for high-achieving students, +.18 for medium-achieving students, and +.26 for low-achieving students. The overall size of the effect reported by the Kuliks for this type of flexible grouping was +.25. The effect size reported by Slavin (1987) was +.41 for high-achieving students, +.27 for medium achieving students, and +.65 for low-achieving students. The overall size of the effect reported by Slavin (1987) for this type of flexible grouping was +.34. Within-class grouping is generally done in reading and mathematics; these are the school subjects for which most research exists. Studies also tend to focus on the upper elementary grades, although there are investigations of flexible within-class grouping as early as second grade and as late as eighth grade.

In a study of grouping practices on mathematics achievement of students in grades 4 and 5, Tieso (2005) found that within-class grouping with curricular adjustments resulted in higher achievement for high- and middle-achieving learners with no differences for low achievers. Her study compared students in traditional whole-group textbook instruction, whole-group instruction with revised and upgraded curriculum, a between-class Joplin plan with a revised and upgraded curriculum, and within-class flexible grouping with a revised and upgraded curriculum. The upgraded curriculum produced positive benefits for all students; the upgraded curriculum implemented with flexible small groups resulted in the greatest achievement gains for all groups with effect sizes ranging from +.29 to +.83. Tieso's results for the Joplin Plan grouping pattern were less positive than the flexible within-class groups, but still effective for high- and middle-achieving students. Previous research on Joplin Plan grouping has been generally favorable for all groups of students, and Tieso hypothesized that

implementation problems and erratic schedules for the Joplin treatment may have affected the results.

The Joplin Plan in Elementary and Middle Grades

The Joplin Plan, named after Joplin, MO, where it was devised, focuses on reading. Students are regrouped on the basis of their reading level for reading instruction. Sometimes the regrouping occurs across three to five grade levels and includes as many as nine different reading level groups. After instruction in the flexibly grouped setting, students return to their homerooms and participate in approximately half an hour of free reading. Classrooms are stocked with a variety of reading materials, and students are able to choose whatever they wish to read. As with within-class grouping, research on the Joplin Plan is more prevalent at the upper elementary and middle school grades (see Kulik, 1992, Table 3, p. 29). However, studies also include learners in primary grades and last from 1 to 3 years in duration. Kulik reported a median effect size of $+0.30$, and Slavin (1987) reported $+0.45$.

Other Flexible Grouping Plans

Other flexible grouping plans that have been used with talented students include pull-out enrichment grouping patterns in which students are grouped outside the classroom for time periods ranging from one half hour a week to one day per month and within-class models such as cooperative learning and cluster grouping in the heterogeneous classroom. In a comparison of programs that varied by grouping arrangements, Delcourt, Lloyd, Cornell, and Goldbert (1994) found that achievement levels for talented children in grades 2 and 3 were higher in pull-out grouping arrangements when compared with within-class models and with children who had no services. Achievement was assessed with the Iowa Tests of Basic Skills. Vaughn, Feldhusen, and Asher (1991) also reported favorable results for the pull-out grouping arrangement in a meta-analysis of a small number of controlled studies investigating this type of grouping arrangement. The outcomes were achievement, critical thinking, creative thinking, and self-concept measures; individual studies assessed some, but not all of the outcomes. When combined, the large-scale comparative study by Delcourt and her colleagues and the meta-analysis by Vaughn and her colleagues indicated that pull-out grouping arrangements result in higher achievement and do not result in lowered self-esteem.

Cooperative learning is also a form of within-class grouping recommended for talented students (Slavin, 1990a). In the heterogeneous classroom, groups are formed by pairing or grouping three to five students of varying abilities to accomplish a common task. A key feature of cooperative learning is a group goal; advocates differ on the ways to implement a reward structure (Johnson

& Johnson, 1992; Slavin, 1990b). Talented students are rarely the focus of concern in cooperative learning research; however, some patterns emerge that can guide practice (Robinson, 1990, 2003). Some studies that analyzed for ability differences reported that high-ability learners performed better in homogeneous groups (Fuchs, Fuchs, Hamlett, & Karns, 1998) or achieve similarly on common tasks, but accomplish more tasks when grouped with other high-ability learners (Kenny, Archambault, & Hallmark, 1995). Students respond differently to cooperative grouping and can withdraw and become passive, thereby relinquishing their opportunity to learn (Mulryan, 1992). The nature of the task, as well as the partner, influenced high-ability learners working on complex mathematics (Diezmann & Watters, 2001). Finally, middle school educators report widespread use of cooperative learning and believe it to meet the needs of high-ability learners, but do not necessarily implement its features with fidelity (Moon, Tomlinson, & Callahan, 1995). Particularly at risk for implementation are the features of individual accountability that reduce free-rider effects (Antil, Jenkins, Wayne, & Vadasy, 1998). As a grouping pattern, cooperative learning should be monitored for overuse with high-ability learners and for faithful implementation.

Finally, two studies have investigated cluster grouping in which 3–10 high-ability learners are placed in a grade-level classroom with a teacher trained to differentiate curriculum to meet their needs. The research is limited, but Gentry and Owen (1999) found that cluster grouping, when combined with regrouping for reading, improved reading achievement for students in grades 3–5. Qualitative data from Gentry and Owen and a survey study by Hoover, Sayler, and Feldhusen (1993) indicate that teachers believe that cluster grouping benefits high-ability learners and grade-level students.

WHAT WE CAN DO

In the Classroom

☛ Adopt flexible within-class grouping for reading and mathematics instruction at the elementary level. For maximum achievement effects, the grouping should be accompanied by adapting curriculum and instruction to student needs (Tieso, 2005).

☛ Adopt cross-grade grouping reading programs like the Joplin Plan in the elementary and early middle school grades.

☛ Use cooperative learning with caution. Reports of student perceptions of unfairness (Clinkenbeard, 1991, Matthews, 1992), fears of free-rider effects, and individual differences in response to cooperative learning (Mulryan, 1992) should be monitored. For complex mathematics problems, cooperative learning in homogeneous dyads is preferable for high-ability learners (Fuchs et al., 1998).

At School

☛ Be wary of policies that disband advanced curricular opportunities. A better strategy is to retain them and offer support so that greater numbers of students may participate in them (Epstein & MacIver, 1992). Rogers and Span (1993) have crafted guidelines for the use of various flexible grouping arrangements with high-ability learners.

The political debates surrounding grouping are long-standing and frequently heated. Adopting federal, state, or even district-wide policies is unlikely to address the day-to-day educational concerns of parents, teachers and administrators. Because grouping decisions are affected by subject matter, as well as classroom and school characteristics, broad policies are interpreted and implemented differently by schools. It is possible for several grouping patterns to coexist in a single elementary, middle, or high school building (Loveless, 1999).

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