

Grouping for Gifted Learners

Placing students in classrooms based on their learning aptitudes and demonstrated readiness is a viable alternative to using age alone, as age can be an insufficient indicator of academic readiness. The learning needs of students of the same age might vary greatly (e.g., Peters et al., 2017; Rambo-Hernandez et al., 2024). Grouping can help address this variability and potentially enable more students to be challenged in school. Although there are many ways to group (that we later detail), the goal of grouping is to better match students' instruction with their demonstrated readiness. NAGC supports grouping as a viable tool for advanced learners when it is based on student readiness for the instruction.

Grouping has been one of the most controversial educational practices for decades. It is important to differentiate grouping, which is flexible, ongoing, and responsive to changing student needs, from tracking, which is fixed and inflexible.

Research Overview

Empirical research generally shows positive academic benefits of grouping for students of all achievement levels (Plucker & Callahan, 2020; Steenbergen-Hu et al., 2016). Because students can be grouped in many ways, it is important to evaluate the effects of various types of grouping.

Between-Class Grouping

Between-class grouping places students from the same grade into different classes (e.g., high, average, and low) based on prior performance or readiness. Research findings are mixed (Johnston & Taylor, 2023); however, positive achievement benefits were found in more methodologically rigorous studies (Steenbergen-Hu et al., 2016) and longitudinal studies (Steenbergen-Hu et al., 2024).

Within-Class Grouping

Within-class grouping involves teachers assigning students within a class to small homogeneous groups for instruction based on students' prior achievement or readiness, often referred to as cluster grouping (Gentry & Tay, 2017). Integrated outcomes of five previous meta-analyses showed that within-class grouping had a small, positive, and statistically significant impact on K–12 students' academic achievement, regardless of their initial achievement or ability levels (Steenbergen-Hu et al., 2016); a recent meta-analysis of studies that analyzed national large scale data

sets found a small but not statistically significant effect on achievement (Steenbergen-Hu et al., 2024).

Cross-Grade Grouping

Cross-grade grouping consists of grouping students from different grade levels together into one setting, typically based on readiness in a specific subject such as reading or math. Multiple meta-analyses consistently reported positive effects for academic growth associated with cross-grade grouping (Steenbergen-Hu et al., 2016). Importantly, one meta-analysis (Kulik & Kulik, 1987) showed that cross-grade grouping resulted in academic achievement gains for students at all levels, not just high ability, suggesting that students of all levels achieved better when in cross-grade grouping compared to traditional heterogeneous grouping.

Special Grouping

Special grouping for the gifted includes practices designed specifically for students who have been identified as gifted and talented. Special grouping may include grouping students from different grade levels with a special focus (e.g., magnet schools, specialized STEM schools), school-based extracurricular activities (e.g., Math Olympiad, robotics clubs), or in out-of-school educational settings (e.g., enrichment programs offered by universities). Steenbergen-Hu et al. (2016) reported large and statistically significant positive results on academic outcomes. Kim (2016) also found large effects for enrichment programs for gifted students.

Although there are few studies on social-emotional outcomes for various types of grouping, they generally do not report harm to students. There is evidence that attending a gifted class may benefit students' self-concept of acceptance and generate more interest in school and better student-teacher relationships than gifted learners attending a regular class (Vogl & Preckel, 2013).

Research-Based Best Practices

1. Grouping should be provided as part of a set of services that can help meet the diverse learning needs of students. Assignment into the flexible groups should be based primarily on student readiness and not on other factors (e.g., SES, race/ethnicity, or gender). Like other educational practices, grouping is neither for all nor a one-size-fits all service.

2. Grouping early and often is needed to maximize the benefits.
3. Grouping should be flexible and take place at regular intervals (i.e., not a permanent one-and-done but multiple opportunities to move in and out of groups). Schools should strive to employ equitable methods to identify all students with advanced learning needs who may benefit from grouping.
4. Simply placing students within groups is not sufficient. To be effective, the timing, dosage, pace, frequency of grouping, and the level and pacing of the instructional content must be aligned with overall instructional goals and the learning needs of students.
5. Grouping requires school leadership to support effective implementation, ongoing assessment, and re-grouping as needed.

Conclusion

Many forms of flexible grouping have research support for their positive effects on student academic achievement and social-emotional development. The benefits of grouping are not limited to just high-achieving and gifted students; importantly, typical and relatively lower achieving students can also benefit academically. NAGC supports grouping as a viable tool for advanced learners when it is based on student readiness for the instruction.

Resources

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