

What the Research Says: Gifted Education Works

Separate studies conducted during the last few decades have demonstrated both the need for and the benefits of gifted education programs. Of special interest are the documented benefits that occur for all children when gifted education strategies and programs are extended to other students, as well. Simply stated.....**Gifted Education Works!**

Please **click** on a link below for more information on the research-based evidence supporting the distinctive method or methods listed below.

Gifted Education Strategies Work

Gifted and talented students and those with high abilities need gifted education programs that will challenge them in regular classroom settings and enrichment and accelerated programs to enable them to make continuous progress in school.

Gifted Education Strategies: What the Research Says

- Gifted programs had a positive effect on subsequent interests of students' post-secondary plans; early advanced project work serves as important training for later productivity. [1]
- Studies found that 320 gifted students identified during adolescence and whom received services through the secondary level pursued doctoral degrees at over 50X the base rate expectations. The base rate expectation for the general population is 1%--1 in 100. [2]
- Students maintained interests and were still involved in both interests and creative productive work after they finished college and graduate school. [3]
- Benefits of gifted programs indicate that students maintained interests over time and were still involved in creative productive work. Students who had participated in gifted programs, maintained interests and career aspirations in college. Students' gifts and talents could be predicted by their elementary school creative/productive behaviors. [4]
- Students' involvement in gifted programs in high school enabled them to explore potential career interests and allow students to see themselves in the role of practicing professionals and visualize a different sense of self. Students had increased post-secondary education plans (from attending 2.6 years to attending 4.0 years). [5]
- A retrospective study investigated the effects of an elementary pull-out program gifted program based on the Purdue Three-Stage Model. Students and their families indicated the program had a long-term positive impact on the cognitive, affective, and social development of most participating students. [6]
- The creative, occupational, and life accomplishments compared with those of graduate students (299 males, 287 females) enrolled in top-ranked U.S. mathematics, engineering, and physical science programs in 1992 and tracked over 10 years. By their mid-30s, the two groups achieved comparable and exceptional success (e.g., securing top tenure-track positions) and reported high and commensurate career and life satisfaction. [7]
- A sample of 2,409 intellectually talented adolescents (top 1%) who were assessed on the SAT by age 13 was tracked longitudinally for more than 25 years. Their creative accomplishments, with particular emphasis on literary achievement and scientific-technical innovation, were examined and results showed that distinct ability patterns identified by age 13 portend contrasting forms of creative expression by middle age. [8]

Acceleration Works

Educational acceleration is one of the cornerstones of exemplary gifted education practices, with more research supporting this intervention than any other in the literature on gifted individuals. The practice of educational acceleration has long been used to match high level student general ability and specific talent with optimal learning opportunities.

- In a study of high-ability children who had been accelerated, 71% reported satisfaction with their acceleration experience. Of the participants who reported they were unsatisfied, the majority indicated they would have preferred more acceleration. [1]
- Talented students from accelerated classes outperform non-accelerates of the same age and IQ by almost one full year on achievement tests. [2]
- Talented students from enriched classes outperform initially equivalent students from conventional classes by 4 to 5 months on grade equivalent scales. [3]
- Students who were allowed early entrance to elementary school averaged six months ahead in achievement when compared to their age peers during the same year. Additionally, these students showed improvement in socialization and self-esteem compared to slight difficulties faced by advanced students who were not accelerated. [4]
- A long-term study of the Academic Talent Search program demonstrated that five years beyond their participation in the program, students viewed the experience positively, attributing feelings of improved self-esteem and self-control to the program. [5]

Grouping Works

The practice of grouping, placing students with similar abilities and/or performance together for instruction, has been shown to positively impact student learning gains. Grouping gifted children together allows for more appropriate, rapid, and advanced instruction, which matches the rapidly developing skills and capabilities of gifted students.

Grouping: What the Research Says

- Students at all achievement levels (high, medium and low) benefited from cluster grouping and other forms of instructional grouping accompanied by differentiated instruction and content. Students who were in cluster groups scored significantly higher than students who did not. More students were identified as high achieving during the three years that cluster grouping was used in the school. [1]
- Achievement is increased when gifted and talented students are grouped together for enriched or accelerated learning. Ability grouping without curricular acceleration or enrichment produces little or no differences in student achievement. Bright, average, and struggling students all benefit from being grouped with others in their ability/instructional groups when the curriculum

is adjusted to the aptitude levels of the group. When gifted students are grouped together and receive advanced enrichment or acceleration, they benefit the most because they outperform control group students who are not grouped and do not receive enrichment or acceleration by five months to a full year on achievement tests. [2]

- Grouping gifted and talented students for instruction improves their achievement. Full-time ability/instructional grouping produces substantial academic gains in these students. Pullout enrichment grouping options produce substantial academic gains in general achievement, critical thinking, and creativity. Within-class grouping and regrouping for specific instruction options produce substantial academic gains provided the instruction is differentiated. Cross-grade grouping produces substantial academic gains. Several forms of acceleration also produced substantial academic effects. Cluster grouping produces substantial academic effects. [3]
- Treatment group students who were grouped for an enriched math lesson and exposed to an enhanced math unit had significant differences on their math achievement when compared to the comparison groups. Further, results indicated significant differences favoring the group that received a modified and differentiated curriculum in a grouped class. [4]

Curriculum Compacting Works

This important instructional strategy condenses, modifies, or streamlines the regular curriculum to reduce repetition of previously mastered material. "Compacting" what students already know allows time for acceleration or enrichment beyond the basic curriculum for students who would otherwise be simply practicing what they already know.

- Researchers have found that elementary teachers can eliminate from 24 to 70% of high-ability students' curriculum by compacting without any negative affect on test scores or performance. [1]
- When classroom teachers eliminated between 40-50% of the previously mastered regular curriculum for high-ability students, no differences were found between students whose work was compacted and students who did all the work in reading, math computation, social studies, and spelling. Almost all classroom teachers learned to use compacting, but needed coaching and help to substitute appropriately challenging options. [2]
- In Tools for Schools, the U.S. Department of Education reported that - "the compacting process can be implemented in a wide variety of settings, with positive effects for both students and teachers.[3]

Advanced Placement Works

Gifted and talented students thrive in an environment that values advanced content, rigor, and higher-order thinking. AP is one well-know acceleration option for for high-ability students.

- The skyrocketing number of students enrolled in Advanced Placement (AP) courses shows the growing interest and need for these accelerated programs in America's high schools. In 2003 ,1.8 million students nationwide enrolled in AP classes. [1]
- Students who have not taken an AP have a 33% chance of obtaining a Bachelor's Degree. However, students who have taken one AP course in high school have a 59% chance, and students who have

completed two or more AP courses have a 76% chance of earning their bachelor's degree. [2] [Click here](#) to view the report.

- AP contributes to overall school improvement: Studies show that students who did not take AP classes, but whose high schools had extensive AP programs did better in college than would have been predicted based on their grades and test scores.[3]
- Hispanic, African American, and low-income students are three times as likely to obtain bachelor's degrees if they at least attempt an AP in high school.[4] [Click here](#) to view the report.

Pull-Out Programs and Specialized Classes Work

Programming options for gifted and talented students occur in a variety of ways, and research demonstrates the effectiveness of pull-out and specialized classes and their curriculum in raising student achievement.

Pullout Programs / Specialized Classes: What the Research Says

- Nine pull-out program research studies were examined for their effectiveness for gifted students. The results indicate that pull-out models in gifted education have significant positive effects for the variables of achievement, critical thinking, and creativity. [1]
- When pull-out gifted programs were eliminated, parents reported that their children were experiencing - "a decline in energy, curiosity, and intrinsic motivation to achieve at high levels and were beginning to disengage from the traditional curriculum." [2]
- Studies found that students in special schools tended to score highest on standardized tests and other measurements compared to students of the same abilities in regular school settings. [3]
- Over 99% of the students in specialized math and science high schools went on to earn a bachelor's degree or higher, with over 50% of the students continuing in challenging science or math fields.[4]
- Specialized classes or pull out programs means fewer repetitive drills and more challenging concepts. - "The achievement level of high ability students falls dramatically when they are required to do routine work at a routine pace."[5] [Click here](#) for more information .