



THE IMPACT OF EXPERT TUTORING ON Academic Achievement

A review of 50 years of academic research into the performance gains expert tutoring produces

Students need help outside of the classroom, and more and more turn to private tutoring. Globally, the market is projected to pass \$102.8 billion by 2018ⁱ—and it's no surprise why. Studies consistently show that private tutoring works with enormous impact.

Students seeking tutors typically have an immediate need: they're struggling with an academic subject, an upcoming exam, or a standardized test. College students may need to bring up their grades to meet admissions criteria or to keep a scholarship. Elementary and secondary school students may need to pass a current course to advance to the next grade. All of these students have one question: **"Is tutoring going to help me meet this need?"**

Study after study finds that the better question is actually, "How much will tutoring help?"

In fact, studies have shown improved performance that lifts students from the middle of the class all the way to outperforming 98% of their peers. Tutoring also improves intangibles like self-confidence and motivation, and even reduces anxiety.

This, in turn, yields a powerful domino effect. For instance, if a student is struggling in math, it's not necessarily just one class grade at risk. As students struggle with coursework in one subject, they fall behind in assignments and withdraw in other classes as well. Grades plummet, and they begin to identify, "I'm just not good at math," with self-perception. That perception then draws them away from the entire array of STEM (science, technology, engineering, and math) careers simply because they struggled momentarily.

Math and reading can be very daunting to young children. Taking tests and answering questions in class can cause an enormous amount of anxiety. Fortunately, a study of third graders published in the *Journal of Neuroscience* suggests a solution: "One-on-one tutoring does more than teach kids, it calms the circuitry in the brain."ⁱⁱ

All students have what it takes to surmount those struggles; they just need additional support. In this sense, a tutor isn't just a bandage for a single class. Rather, a tutor is a booster shot for an entire academic future.

Let's look at the robust body of independent academic research that proves tutoring works.

Tutoring makes a big difference.

One of the most influential tutoring studies (Bloom) found that tutoring generated jaw-dropping outcomes, lifting average performers (those in the 50th percentile) to top-of-the-class performers, around the 95th to 98th percentile—(see figure below).ⁱⁱⁱ

Bloom's success—and that of other studies he reviewed, each of which had similar results—is due to some specific factors. We'll look at those factors further below.

For now, let's look at the research that evaluates how much tutoring can help students improve:

1. Classroom performance in affected subjects
2. Grades and standardized test scores
3. Student engagement and success rates

1: Nearly 90% of studies done on tutoring found the same result: tutored students perform better than non-tutored students in the classroom.

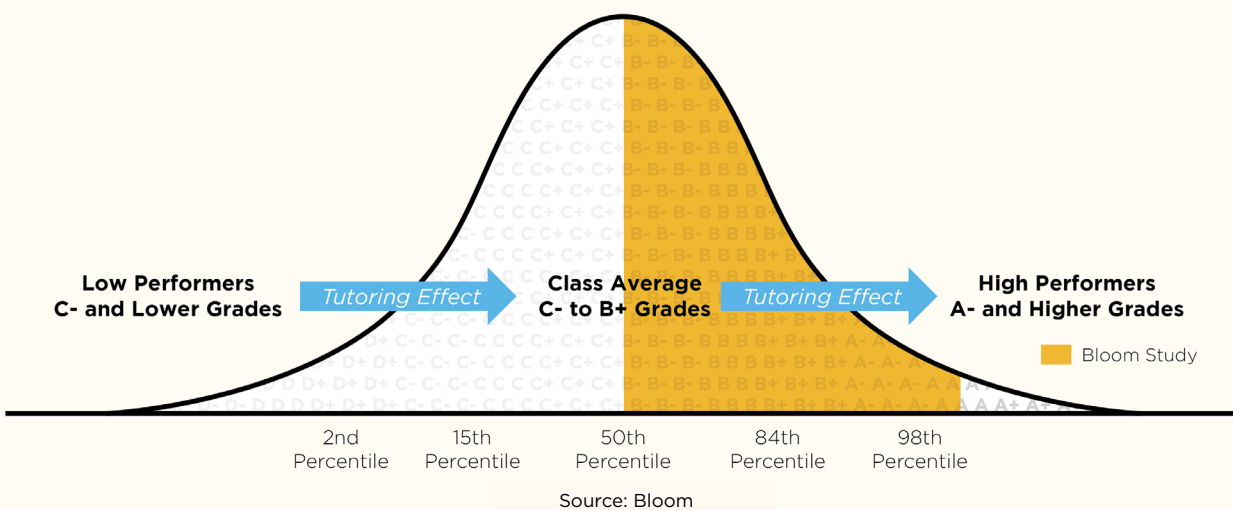
A popular study in the *American Educational Research Journal* compared findings from dozens of different studies on tutoring and found that tutored students out-performed non-tutored students in 45 out of 52 studies, a rate of nearly 90%.^{iv}

The researchers wrote, "The average child in the tutored group scored at the 66th percentile of the students in the untutored or control group." In other words, the average tutored student did better than two-thirds of the untutored students.

The evidence is the same for students who are lagging or, worse, risking failure. For example, a study in the *Journal of Educational Psychology*, which focused on students at risk for reading failure, found that the average gain among students was equivalent to moving from the 50th percentile to the 65th percentile.^v

This covers how tutoring improves average students and at-risk students, but what about high achievers? Can tutoring help them as well? Again, the evidence suggests yes. For instance, a study from Columbia University found that English tutoring among students in the 90th percentile improved scores across grade levels.^{vi}

In general, tutoring can help all students regardless of their current performance level



“Each of the reviews concluded that tutoring programs can contribute to the academic growth of the children who receive the tutoring.”

– American Educational Research Journal

2: Tutoring has been found to increase grades and scores for 8 out of 10 students, and to boost test scores upwards of 12 percentage points.

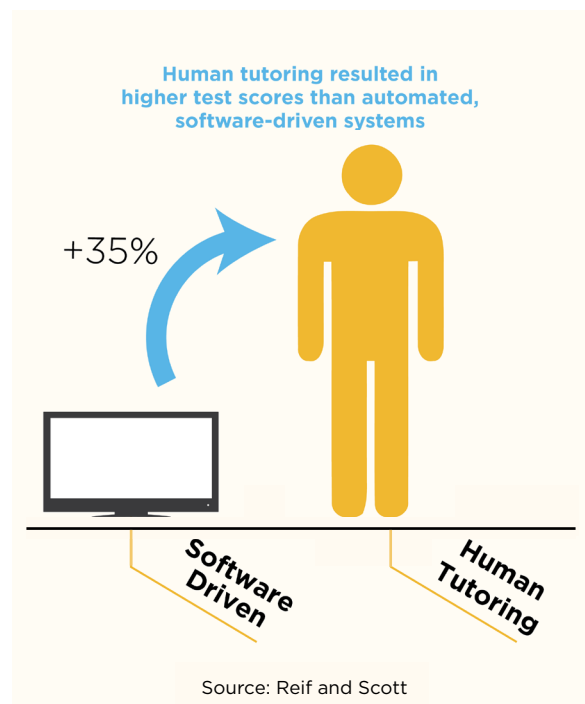
When one school introduced a tutoring program for all of its students, it increased average test scores for children throughout the institution.^{vii}

Indeed, students (and their parents) are particularly concerned about performance on standardized tests. Students worldwide have never had so much of their future riding on so many high-stakes standardized tests as they do today, driving them to seek out any advantage they can get. Tutoring has been shown to provide that advantage that students are seeking on standardized tests.

Test Scores: Researchers at Columbia University looked at tutoring’s effect on math scores and found final scores improved 4 to 6 percentage points, an effect they aptly describe as “quite large.” The effect is even more dramatic for underperforming students specifically: those in the 25th percentile moved up by 7.2 percentage points.^{viii} Similarly, tutoring has been found to improve exit examination scores by 11 to 12 percentage points.^{ix} Reif and Scott found that human tutoring (as opposed to automated software-driven tutoring) resulted in classroom test scores approximately one-third higher (see figure).^x

Grades: *The Journal of College Reading and Learning* reported that tutored students have higher GPAs.^{xi} Similarly, the National Institutes of Health published a study that found a “significant” increase in grades at the end of a

course for 79% of tutored students.^{xii} The effect on grades grows stronger with an increased number of tutoring sessions, according to *The Journal of Genetic Psychology*.^{xiii}



3: Tutoring repeatedly increases student success rates.

One unexpected and eye-opening finding came from a college that wanted to know if its own tutoring and learning assistance program was positively impacting re-enrollment.

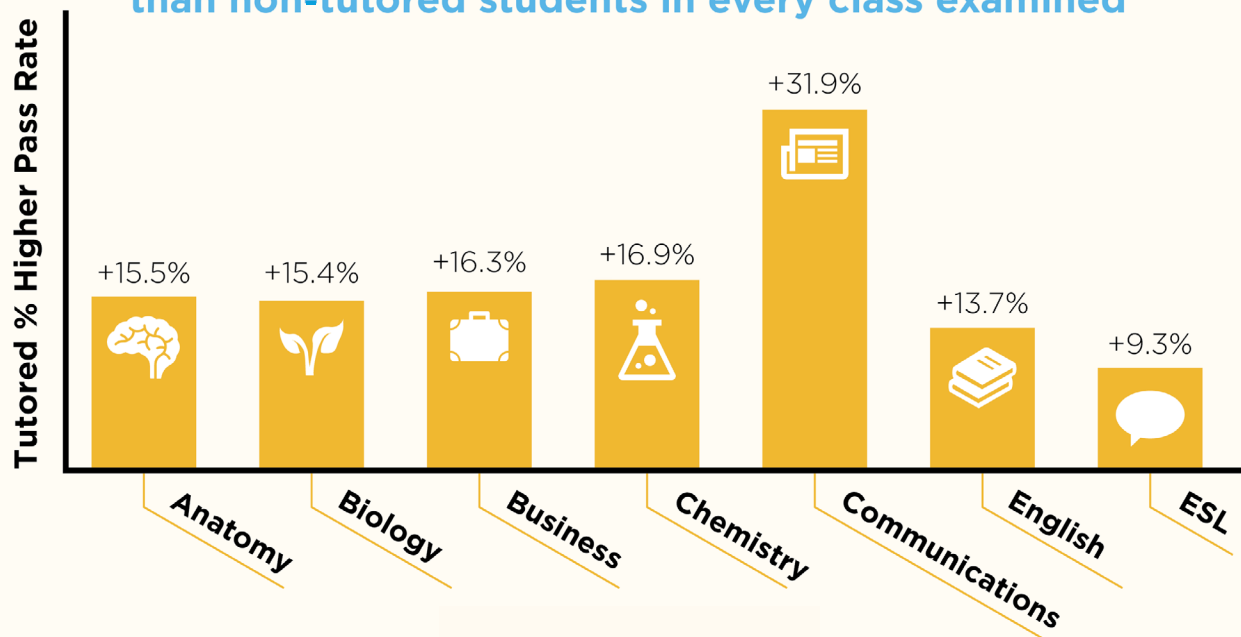
The college discovered that 82% of tutored students re-enrolled from the fall to spring semesters, versus an institutional average of only 70%—a difference of nearly one-fifth!^{xiv} They also found that more tutored students passed their courses than those not tutored.

Their conclusion: “Students who learn are students who stay.”

“There was a significant correlation between the number of tutoring sessions attended and grades earned.”

– The Journal of Genetic Psychology

Tutored students had higher pass rates, on average, than non-tutored students in every class examined



Source: Chabot College

Chabot College, performing a similar study of its own learning assistance program, found that tutored students had higher success rates (moving on to the next course rather than repeating the original course) in every single class they examined.^{xv} The figure above indicates, as a percentage, the higher pass rate of tutored students. For example, nearly a third more tutored students successfully passed the introductory communications course than non-tutored students.

That being said, studies have shown that not all tutors are equally effective, and certain factors optimize tutoring outcomes.

“Private tutoring reduced the chance of repeating grades and increased student academic performance.”

– Research in Sociology of Education

What makes tutoring more likely to succeed?

The Bloom study we mentioned earlier found a tutoring impact that can carry an average student to the top of the class, or a low performer to a solid B-level or even A-level performance, which is simply enormous. Other researchers have found similar effects.^{xvi}

Tutoring helps, but it’s not always *equally* effective in all situations. What does it take to optimize outcomes? According to the research, three major factors stand out:

1. Subject matter expertise
2. Tutoring program structure
3. Amount of tutoring

1: Subject matter expertise “achieves better long-term gains.”^{xvii}

In a comparative analysis of tutoring studies, the journal *Educational Psychologist* reported, “A common explanation [for Bloom’s spectacular results] ... is that they were highly trained expert tutors.”^{xviii}

This would suggest that tutors whose knowledge of the subject may be merely marginal over that of the student's (such as a peer with a higher grade drawn from the same class, or a parent helping out with homework) won't be as effective as a tutor who has received professional training in the subject.

Edward Gordon, writing for an association of professional educators, found that qualities like those listed below were critical to "ensuring that a student achieves better long-term gains."^{xi}

Qualifying Characteristics to Seek in Tutors

Professional education and degrees

Special credentials

Prior professional experience

Training and experience as a tutor

2: Structured tutoring produces especially strong effects.^{xx}

Numerous studies that have compared peer tutoring versus structured programs "reported that these contributions had been clearly demonstrated only for well-structured and cognitively-oriented programs."^{xxi} What does "structure" mean exactly? Tutoring should be an organized experience that enables both the tutor and the student to track progress and focus on areas of weakness through a partnership that adapts to the student's unique learning style. Ways to structure tutoring may include:

- Initial diagnostics, including both performance

Conclusion: Expert tutoring is an investment that pays off.

Parents and students reasonably want to know what to expect from tutoring. Fortunately, fact-based evidence of tutoring's successful impact on academic performance abounds: significant improvement in grades, test scores, and course completion has been found over and over again by researchers.

Indeed, tutoring improves a student's entire outlook, even over the long-term, as immediate needs flow into future academic work. For parents, the research means tutoring is a powerful way to advocate for your children's academic future; for students, the studies show that they can find success even in the most difficult classes.

When a tutoring program is carefully designed and implemented results can 'yield significant gains in academic achievement.'

- Educational Psychology

measures and classroom/test-taking strategies like time management

- Using that diagnostic information to create a detailed learning plan, which may include test-taking and time management strategies
- Ongoing two-way feedback and per-session assessments to ensure you're checking for retention

3: More tutoring sessions can enable "mastery learning."

The amount of tutoring makes a difference too; a single tutoring session is less likely to yield what researchers call "mastery learning," which *Educational Psychology* believes may be one of the keys to Bloom et al.'s massive impact.

The U.S. Department of Education reported: "Tutoring programs in which tutors met with tutees at least three times a week were more likely to generate positive achievement for tutees than programs in which tutors and tutees met twice a week."^{xxii}

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Tutoring produces varied results and these findings do not guarantee individual success.