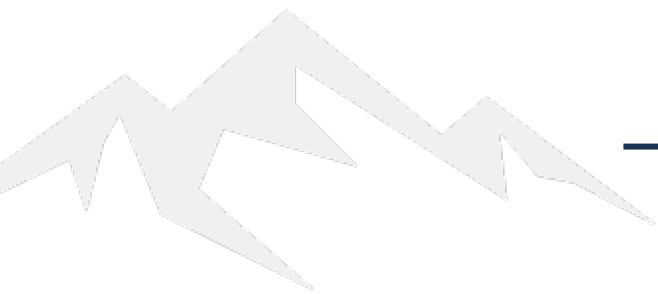




October 2025

Leverage Points for Closing the Achievement Gap in Education

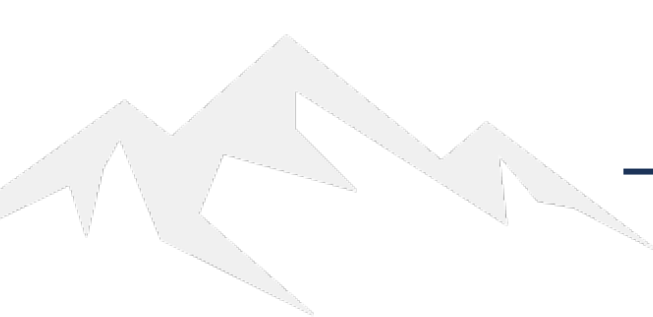


About the Author

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Dr. Debora Scheffel serves as the CUS Dean of the School of Education at Colorado Christian University. She earned a PhD in Communication Sciences and Disorders from Northwestern University, Evanston, Illinois, and completed a National Institutes of Mental Health post-doctoral fellowship in cognitive science at the University of California, San Diego. Her research interests are in education reform policy, reading, and oral language development and disabilities in children. She is formerly a member of the Colorado State Board of Education representing Colorado's 4th Congressional District. She is passionate about quality education and providing a range of available educational options for all children.



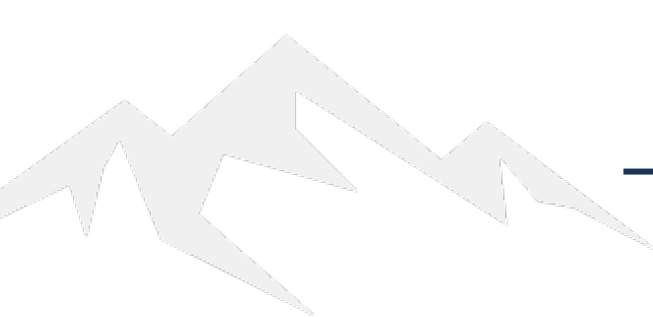
Introduction

Achievement gaps in education have existed for centuries with educational trends often ebbing and flowing depending on various factors and educational eras. According to The Glossary of Education Reform, “the term *achievement gap* refers to any significant and persistent disparity in academic performance or educational attainment between different groups of students.” (1)

Achievement gaps exist within all subjects and all types of students across the United States and across the globe. However, “[w]hile particular achievement gaps may vary significantly in degree or severity from group to group or place to place, achievement gaps are defined by their consistency and persistence – i.e., achievement gaps are not typically isolated or passing events, but observable and predictable trends that remain relatively stable and enduring over time.” (1) Achievement gaps are often observed through multiple measures that gauge academic success – those critical educational milestones that examine a student’s knowledge and understanding of a subject and their accomplishments in education. Tools like standardized test scores, graduation rates, and overall academic performance throughout schooling help to highlight where students, teachers, and schools have excelled and where they need improvement. Even though all of these tools are used to measure success year after year, also indicating where improvements are needed, the achievement gap continues to persist.

In many subjects and grade levels, the gap stays static or continues to get wider. While there have been various methods employed in an attempt to close the achievement gap over the last fifty years, most have fallen short. More importantly, those methods have made it increasingly clear that the achievement gap impacts all students, of all grades, across all subjects. It is one of the most significant challenges in education across the world, and even more particularly in the United States.

This report contains a full breakdown of leverage points to help close achievement gaps in our educational system, which include direct, explicit, and systematic instruction, using a scope and sequence approach to curriculum planning, focusing on skill mastery, and high-dosage tutoring.



The Achievement Plateau: What the NAEP Numbers Show

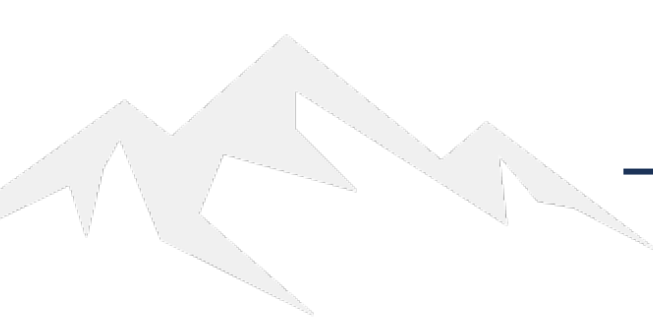
The National Assessment of Educational Progress (NAEP) is a primary source for reviewing academic achievement for multiple grade levels. The organization has been assessing students' knowledge for over fifty years and continues to be a reliable basis for education professionals, especially with the "report card" assessments testing student skills put out every few years relaying current educational statistics across multiple subjects. Student scoring is ranked high to low using the following terminology: *NAEP Advanced*, *NAEP Proficient*, *NAEP Basic*, and below *NAEP Basic*.

Reading

In 2024, the NAEP reading assessment was administered to "representative samples of fourth- and eighth-grade students in the nation, states, the District of Columbia, Department of Defense schools, and 26 participating large urban districts." (2)

The data collected showed that scores were lower in both grades from the previous assessment given in 2022. According to the assessment, "[t]hirty-one percent of fourth-grade students performed at or above the [NAEP Proficient](#) level on the 2024 NAEP reading assessment, which was 2 percentage points lower compared to 2022 and 4 percentage points lower than 2019." (2) Out of the thirty-one percent, twenty-three percent scored at the *NAEP Proficient* level and only eight percent of students scored at the *NAEP Advanced* level. This means that sixty-nine percent of fourth-grade students scored below proficient in reading; more specifically, forty percent scored below *NAEP Basic* and twenty-nine percent scored at the *NAEP Basic* level.

Scores for eighth-grade reading also went down in 2024. According to the NAEP findings, "the average reading score for the nation at grade 8 was 2 points lower than 2022 and 5 points lower compared to 2019. [...] Compared to the first reading assessment in 1992, the average score was not significantly different in 2024." (3) The assessment showed that thirty-three percent of eighth-grade students scored below *NAEP Basic*, thirty-seven percent scored at the *NAEP Basic* level, twenty-six percent scored at the *NAEP Proficient* level, and only four percent of students scored at the *NAEP Advanced* level.



According to The Nation's Report Card, between 2022 and 2024, score changes were decreased in eight different states/jurisdictions and forty-four states/jurisdictions had no significant change in scores. (4) However, no states or jurisdictions increased their reading assessment scores.

The last scores taken for twelfth-grade students was in 2019. The study revealed that thirty percent of students were below *NAEP Basic* level and thirty-three percent performed at the *NAEP Basic* level. The scores for the *NAEP Proficient* and *NAEP Advanced* levels showed no significant change with thirty-one percent scoring as proficient and six percent of twelfth-grade students scoring in the advanced level. (5)

Across all three milestone grades, less than forty percent of students in each grade tested at or above the *NAEP Proficient* level in reading.

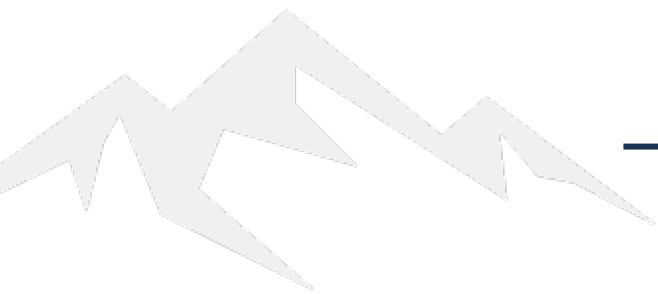
Mathematics

Fourth-grade students were tested in mathematics as recently as 2024. Encouragingly, “thirty-nine percent of fourth-grade students performed at or above the *NAEP Proficient* level on the mathematics assessment, which was 3 percentage points higher compared to 2022,” but, unfortunately, the score was still “2 percentage points lower than in 2019.” (6)

Overall, sixty-one percent of the students tested received below *NAEP Proficient* – thirty-seven percent scored at the *NAEP Basic* level and twenty-four percent scored below the *NAEP Basic* level.

Moving forward to eighth-grade students, there wasn't a significant change in score from 2022 to 2024. According to The Nation's Report Card, “In 2024, twenty-eight percent of eighth-grade students performed at or above *NAEP Proficient* in mathematics in 2024, which was 2 percentage points higher compared to 2022 and 6 percentage points lower compared to 2019. Thirty-nine percent of eighth-graders performed below *NAEP Basic*, which was 1 percentage point higher than in 2022 and 8 percentage points higher compared to 2019.” (7)

While the score for at or above proficient from 2024 was one point higher than in 2022, which is an improvement, the number of students performing



below the basic level was also one percentage point higher as well (see Figure 1). Overall, the scores for eighth-grade mathematics haven't improved over the last five years.

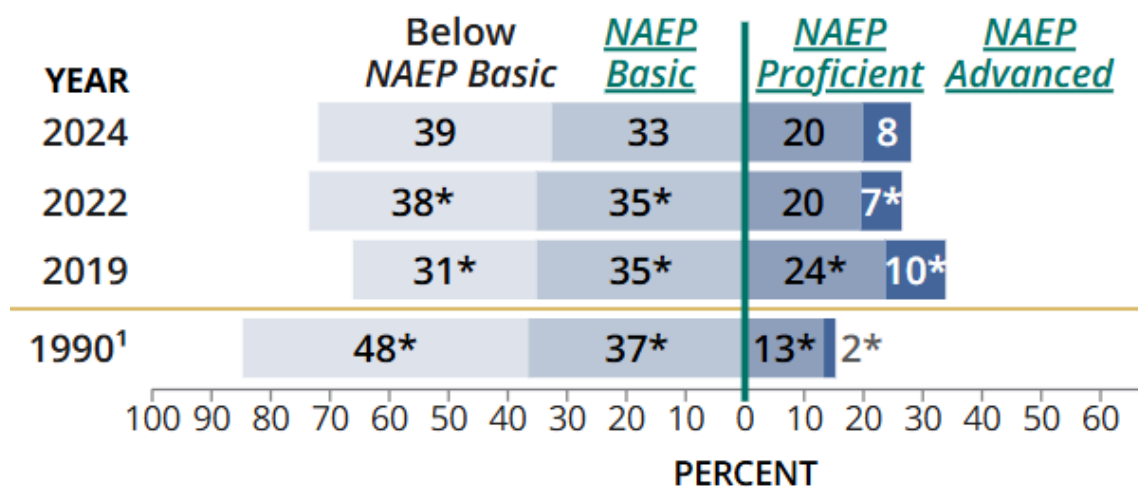


Figure 1. “Trend in eighth-grade NAEP mathematics achievement-level results.” (7)

The last mathematics assessment given to twelfth-grade students was in 2019. According to the results, “There was no significant change in the average mathematics score at grade 12 in 2019 compared to 2015.” (8)

In 2015, twenty-five percent of twelfth-grade students scored at or above the *NAEP Proficient* level, whereas twenty-four percent scored at or above the proficient level in 2019. Additionally, the number of students below the *NAEP Basic* level increased from thirty-eight percent in 2015 to forty percent in 2019.

As one can see, while some scores remain similar to the previous assessment results, the overall scores for mathematics have not improved over the last five years in any of the benchmark grade levels.

Science

In 2019, all three benchmark grade levels were tested in science. Thirty-five percent of fourth-grade students performed at the *NAEP Proficient* level and

one percent performed at the *NAEP Advanced* level. Twenty-seven percent of students scored below the *NAEP Basic* level and thirty-eight scored at *NAEP Basic* (see Figure 2). “The percentage of students performing at or above the *NAEP Proficient* level was 2 percentage points lower compared to 2015, whereas the percentage of students who performed below the *NAEP Basic* level increased by 3 percentage points.” (9)

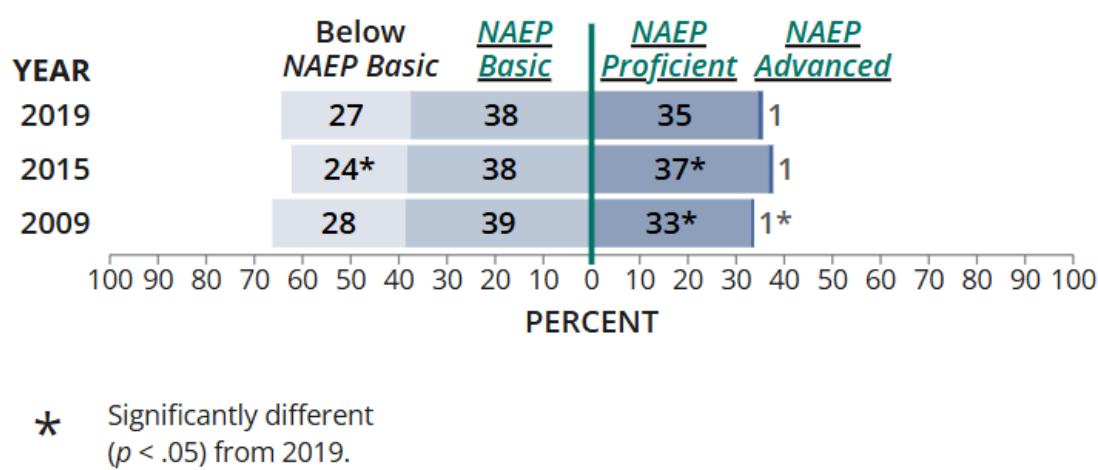
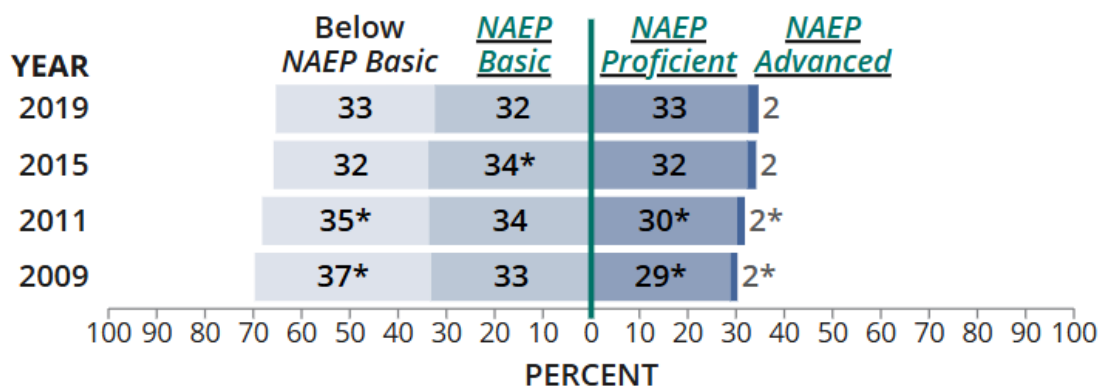


Figure 2. “NAEP achievement-level results in NAEP science for fourth-grade students: 2009, 2015, 2019.” (9)

While fourth- and twelfth-grade students were only tested in 2009, 2015, and 2019, eighth-grade students were assessed in 2011 as well. In 2019, sixty-five percent of students scored at or below the *NAEP Basic* level with the other thirty-five percent scoring at or above the *NAEP Proficient* level (see Figure 3).

Looking at the scores, there is not a large difference from 2015 to 2019, but when compared to 2011 and 2009, scores in science for eighth-grade students improved over the 10-year gap from 2009 to 2019.



* Significantly different ($p < .05$) from 2019.

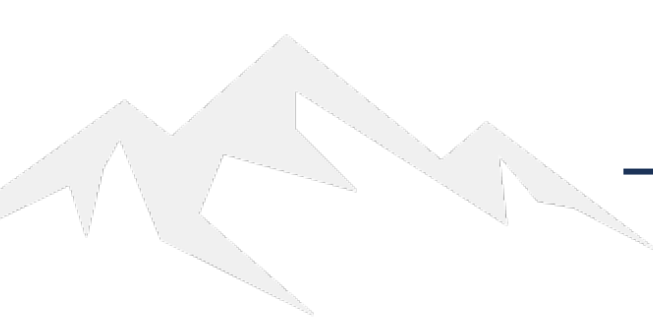
Figure 3. “NAEP achievement-level results in NAEP science for eighth-grade students: Various years, 2009-2019.” (9)

Twelfth-grade student results also did not show a significant difference from 2015 to 2019. Twenty-two percent of students performed at or above the *NAEP Proficient* level, the same as in 2015, but two points higher than 2009. Thirty-seven percent scored at the *NAEP Basic* level, one point lower than in 2015, but forty-one percent of twelfth-grade students scored below the *NAEP Basic* level, which was one point higher than in 2015 and 2009. (9)

Overall, science scores have remained fairly stagnant over the last ten years. There hasn’t been any significant increase or decrease in scoring. While it is generally a good thing that scores haven’t decreased juristically, it is not good that they have remained so stationary, with almost no improvement in science in any grade level for a decade.

Statistics Conclusion

The statistics for some of the most common subjects have shown little to no improvement in education for over a decade. In reading and mathematics, national scores have decreased in almost all grades over the last testing period. The achievement gap has remained and has continued to grow, despite acknowledging its pertinent and perennial existence.



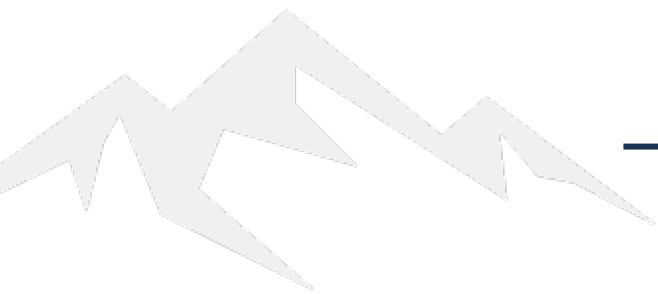
The Limits of Common Approaches to Closing the Achievement Gap

The most common method for closing the achievement gap has been to address the socio-economic and socio-cultural aspects of student life. Traditionally, governments, administrations, and educators have focused on the socio-cultural aspects of student learning, believing that if this aspect is addressed, achievement gaps will lessen. Socio-cultural aspects in education typically refer to accommodating students' socioeconomic status, race, ethnicity, and other factors like gender or disability.

Student socioeconomic status has been a major part of the achievement gap discussion for decades. A report done by the National Center for Education Statistics (NCES) showed that students from lower-income families typically performed lower on academic assessments than students from more affluent backgrounds. The common reasoning for this was that low-income students usually attend schools that are underfunded with fewer resources, less experienced teachers, and limited access to extracurricular activities. Higher-income students generally benefit from better-funded schools, private tutoring, and family resources that help to support their academic achievement. (10) The socioeconomic explanation has provided a common reason for why the achievement gap was so significant and continued to persist, regardless of intervention.

Additionally, race and ethnic disparities are noted often as another component regarding the achievement gap. The U.S. Department of Education's Office for Civil Rights documented ongoing differences in achievement between white students and students of color. According to their findings, African-American students and Hispanic students are more likely to attend schools with fewer resources, face higher rates of disciplinary action, and encounter systematic biases within the educational system. (11)

Gender differences have also been recorded as an important factor contributing to the achievement gap. Sadker and Sadker discuss gender differences in detail in their book, *Failing at Fairness: How America's Schools Cheat Girls*. They found that boys generally performed better than girls in subjects like math and science, while girls frequently outperformed boys in language arts and reading. They also revealed that there was often gender

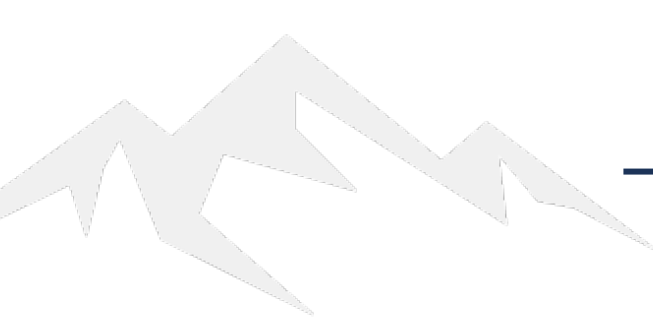


bias in the classroom, in the curriculum, and in socialization. (12) Citing these gender-based differences as part of the achievement gap, gender-sensitive educational approaches and support systems became more common.

All of these factors combined can reflect a sociocultural learning theory. This theory emphasizes how social interactions, cultural contexts, and language shapes a child's cognitive development and literacy skills. Educators who practice sociocultural learning theory believe that learning happens through social collaboration and is deeply embedded in cultural practices, with teachers and peers acting as essential participants in a student's learning process.

Sociocultural learning theory almost directly parallels Lev Vygotsky's more generalized psychological sociocultural theory, which highlighted the role of social interactions and culture in cognitive development. More specifically,

"Vygotsky strongly believed that community plays a central role in the process of 'making meaning.' Cognitive development is a socially mediated process in which children acquire cultural values, beliefs, and problem-solving strategies through collaborative dialogues with more knowledgeable members of society. The more knowledgeable other (MKO) is someone who has a higher level of ability or greater understanding than the learner regarding a particular task, process, or concept. The MKO can be a teacher, parent, coach, or even a peer who provides guidance and modeling to enable the child to learn skills within their zone of proximal development (the gap between what a child can do independently and what they can achieve with guidance). The interactions with more knowledgeable others significantly increase not only the quantity of information and the number of skills a child develops, but also affects the development of higher-order mental functions such as formal reasoning. Vygotsky argued that higher mental abilities could only develop through interaction with more advanced others. According to Vygotsky, adults in society foster children's cognitive development by engaging them in challenging and meaningful activities. Adults convey to children how their culture interprets and responds to the world. They show the meaning they attach to objects, events, and experiences. They provide the child with



what to think (the knowledge) and how to think (the processes, the tools to think with).” (13)

In his theory, the Zone of Proximal Development, which is defined as the gap between actual and potential learning, could be bridged by collaboration with MKOs. The sociocultural learning theory drills down more specifically into the role of interactions on cognitive development and literacy skills.

While these theories and sociocultural aspects do seem to impact a child's experience in school, they are not necessarily the driving factor behind the achievement gap. In fact, there have been multiple peer-reviewed studies challenging the extent to which sociocultural circumstances and social learning alone can explain learning outcomes and if targeting these components can actually close the achievement gap.

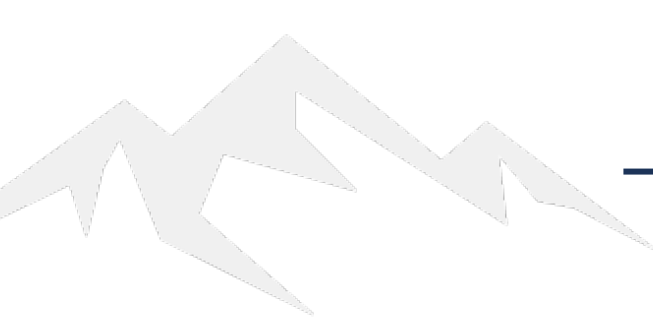
Many critique sociocultural theories because they can be difficult to measure quantitatively. Others critique sociocultural theories because they look at students in generalized, stereotypical groupings instead of looking at students as individual learners working at their own cognitive pace with personal motivations and skills.

Along with this critique, many posit that group learning or social learning methods, which are often based in sociocultural principles, can fail because, characteristically, academically gifted students dominate the discussion or project and students with more introverted tendencies struggle to interact when forced.

While social learning, a practice related to sociocultural learning in which students learn by observing and replicating others, can be great in some contexts, it can also have a similar outcome as the memorization of facts instead of having mastery of a subject.

According to a 2014 study,

“A hallmark of the human mind is its ability to engage analytical reasoning, and suppress false associative intuitions. Through a set of laboratory-based network experiments, [the researchers found] that social learning fails to propagate this cognitive strategy. When people



make false intuitive conclusions and are exposed to the analytic output of their peers, they recognize and adopt this correct output. But they fail to engage analytical reasoning in similar subsequent tasks. Thus, humans exhibit an 'unreflective copying bias', which limits their social learning to the output, rather than the process, of their peers' reasoning-even when doing so requires minimal effort and no technical skill." (14)

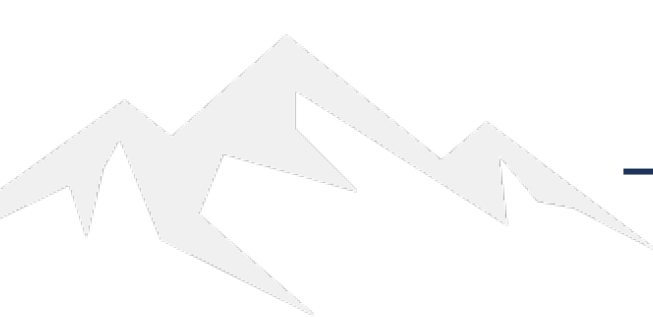
Additionally, in a separate study in the *Educational Psychologist*, Kirschner, Sweller, and Clark found that "[i]n so far as there is any evidence from controlled studies, it almost uniformly supports direct, strong instructional guidance rather than constructivist-based minimal guidance during the instruction of novice to intermediate learners. Even for students with considerable prior knowledge, strong guidance while learning is most often found to be equally effective as unguided approaches." (15)

While social learning and sociocultural interactions do hold weight in specific contexts, they don't account for the entirety of learning. All of these critiques and studies imply that sociocultural and social elements are important, but they cannot replace other cognitive and instructional factors necessary for comprehensive educational success.

Successful Research-Based Methods to Change the Achievement Gap

The most effective methods in closing the achievement gap may be surprising, sounding too simple, but they are proven methods that yield results and support student success and growth. One of the most successful methods to achieve academic growth for students is to directly teach students the content of a subject to mastery.

Many teachers are encouraged to find the books with the most low-stake topics or neglect teaching history because it has been politicized. School should be a place for learning and mastering subjects (like literacy, mathematics, science, history, etc.) that will be crucial for students to know in the future. Teaching students the content of these subjects to mastery is the best way to close the achievement gap.



The Benefits of Direct, Explicit, and Systematic Instruction

While this sounds simple, to focus on the teaching itself, multiple methods make up this teaching to assist in the improvement of student achievement. Direct, explicit, and systematic instruction is an important aspect of teaching to mastery. Direct instruction “involves the teacher presenting information directly to the students, through clear, concise explanations and examples that help students process what they’re being taught. It’s a way of eliminating confusion and guesswork and guiding students through concepts and applications, going into detail where needed to make sure all students have processed and understood the lesson.” (16)

Direct instruction thrives on precision and clarity, allowing students to hear the information from their teacher *and* see it being used correctly by their teacher. Explicit instruction goes hand-in-hand with direct instruction. In explicit instruction, the main focus “is intentional teaching with a clear and direct presentation of new information to learners, which does not require student inferencing during the introduction of new or previously taught content, concepts or skills.” (17)

This makes the learning goal obvious to students and teaches new concepts and skills using step-by-step methods. “Every new concept or lesson taught in the classroom has to be logical, gradual, and easy to process for all students, regardless of their learning difficulties. [...] This approach also involves a high level of direct interaction between student and teacher, where concepts are broken down into manageable steps, while the teacher provides guidance and further explanations where needed.” (16)

Finally, systematic instruction is defined as “a planned sequence that includes a logical progression of content, concepts and skills, from simple to complex, with cumulative teaching/review and practice to enable learners to achieve learning goals.” (17) In truth, systematic instruction is exactly what its name suggests. It features an organized method of instruction that builds understanding step-by-step, connecting new information to what the student already knows and gradually assembling a complete picture of the concept.

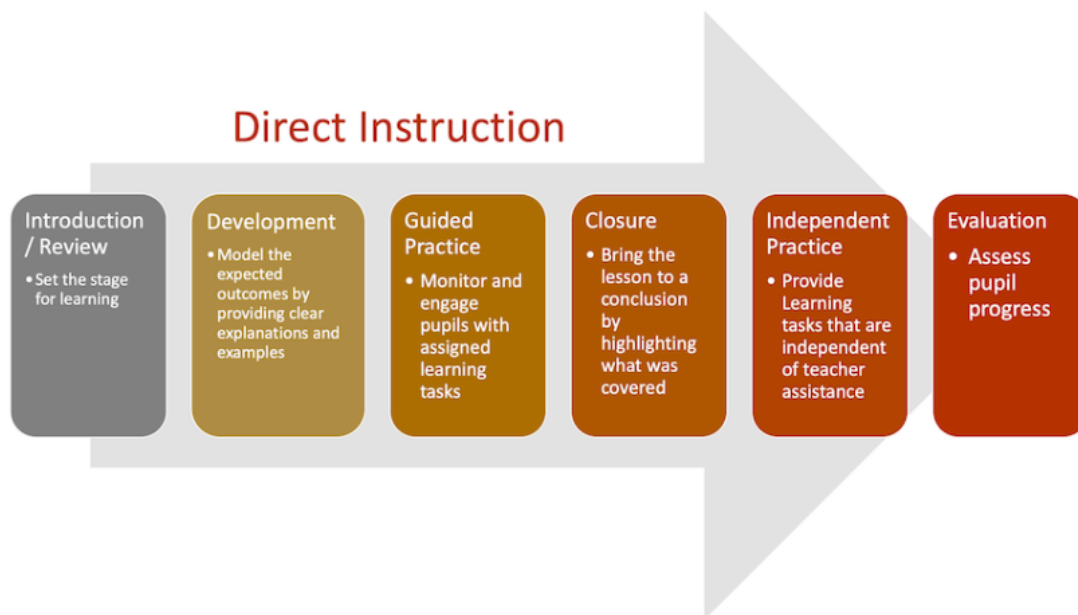
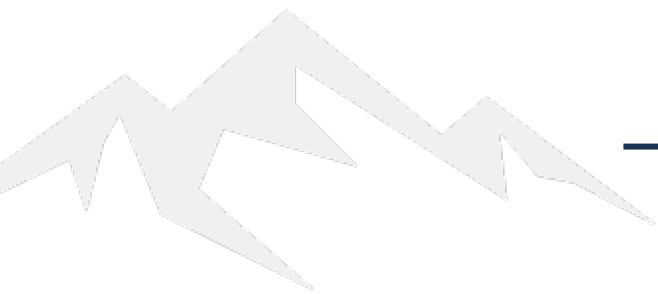


Figure 4. Direct Instruction Development Graphic (18).

These methods are crucial in education because of the connections teachers can create with their students and with their students' ever-growing skills and knowledge. By embedding direct, explicit, and systematic instruction into the curriculum, educators can provide the structured support students need to build comprehension skills and progress toward fluency and literacy with greater efficacy. These methods are also valuable for educators because they help students, especially those falling behind and students with learning challenges or disabilities, by providing a more supported approach to teaching and a building block learning method.

According to the Da Vinci Collaborative, direct, systematic, and explicit instruction offers multiple learning benefits, such as:

- **"It promotes clarity and understanding:** teachers provide clear, focused explanations, examples, and demonstrations, eliminating vagueness and avoiding misunderstandings on behalf of the students.
- **It promotes efficiency:** through direct and focused teaching methods, students receive direct, targeted information without any distractions



or confusion, making it easy for them to follow lessons and build knowledge gradually.

- **It caters to diverse learners:** this type of instruction is not only beneficial to struggling students, but to general education students, as well. Each student has a different learning style, different needs, and moves at a different pace, and these approaches can easily be tailored to fit different learning preferences.
- **It promotes retention of information:** through direct, systematic, and explicit instruction, students learn to master concepts and ideas, building gradually from simple to more complex lessons. This helps them better process and retain information, building a solid foundation for future learning and progress.
- **It helps build confidence:** struggling learners often have a hard time being confident in their skills or speaking out in the classroom, because they might not have grasped the information as well as other students or they feel left behind. Through direct, systematic, and explicit instruction, they receive clear guidance and they know exactly what's expected of them and what comes next, thus eliminating anxiety and uncertainty. This type of instruction also allows them to interact more directly with their teacher, get focused, targeted feedback, and to see progress as they move on to increasingly more complex ideas." (16)

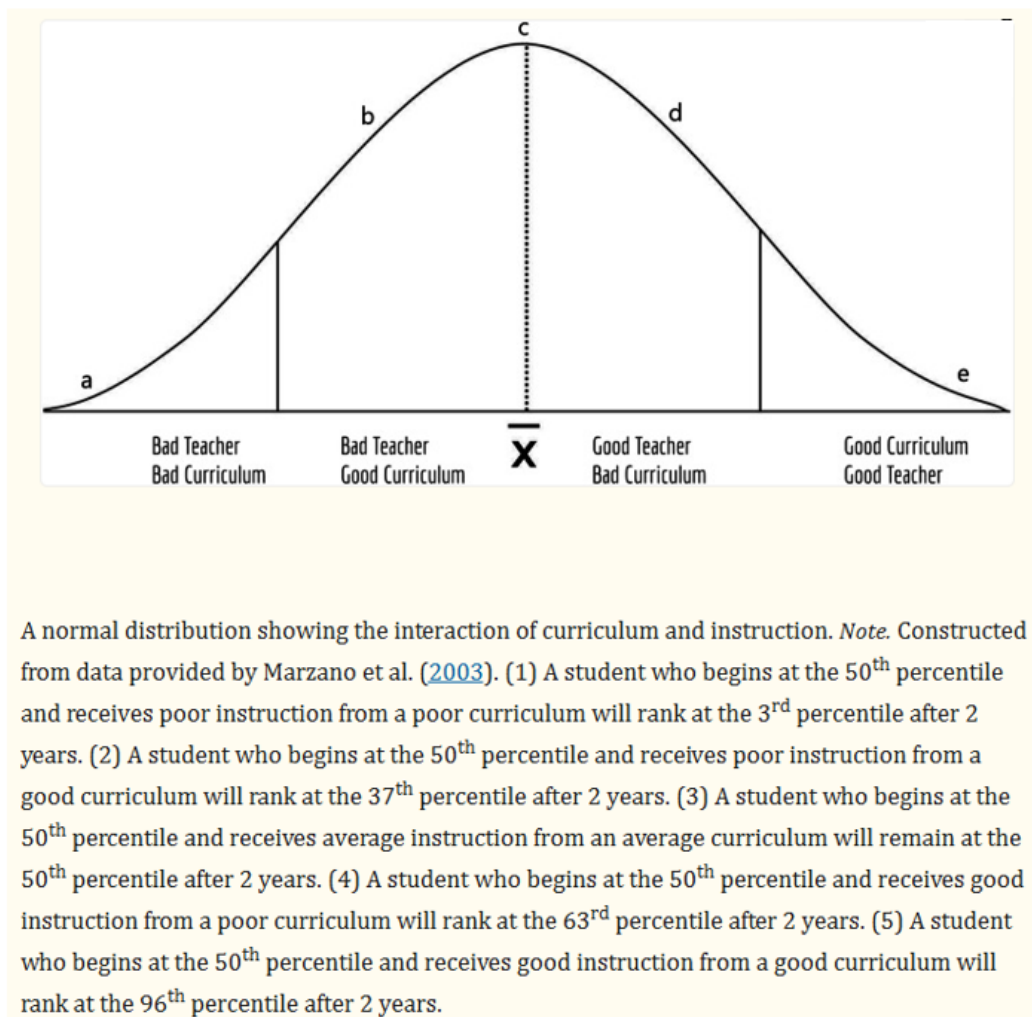
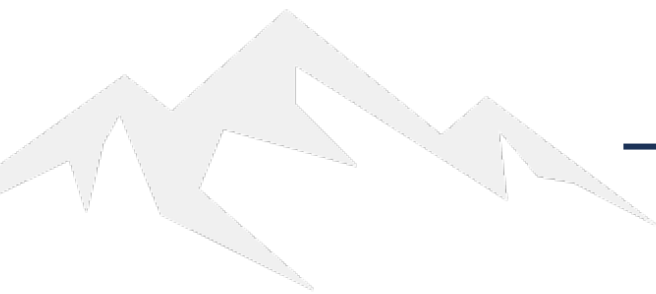
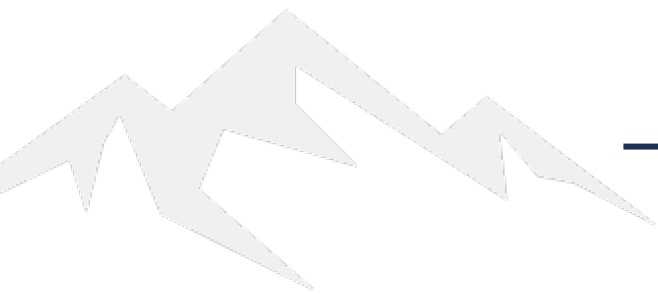


Figure 5. Effectiveness of Teacher and Curricula in Student Percentile Rankings. (19)

Implement a “Scope and Sequence” into Curriculum Planning

Another successful method proven to support student achievement is using a scope and sequence. The Florida Center for Reading Research and the Florida Department of Education define this method clearly, stating, “A Scope and Sequence provides an overview of instruction that shows the full range of content (scope) to be taught and the order (sequence) in which the content is taught.” (20)



A scope and sequence is often followed when using systematic instruction since skills are taught one step at a time and build on one another to achieve a higher level of understanding within a subject. Scope and sequence approaches require well-thought-out instruction plans since an educator has to see the goal and ensure they teach skills in a specific order to reach that goal by the end of their lesson. “A well-planned scope and sequence helps meet all students’ instructional needs regardless of their abilities and progress.” (20)

A scope and sequence is vital to assisting teachers, and subsequently, their students, if they want to plan a detailed, thorough lesson addressing every aspect of a big picture idea/skill. Once we accept the premise that scope and sequence is necessary, identifying a comprehensive and well-sequenced curriculum may be a challenge; however, [The National Institute for Direct Instruction](#) lists programs with a comprehensive scope and sequence, including a rubric for choosing curricula.

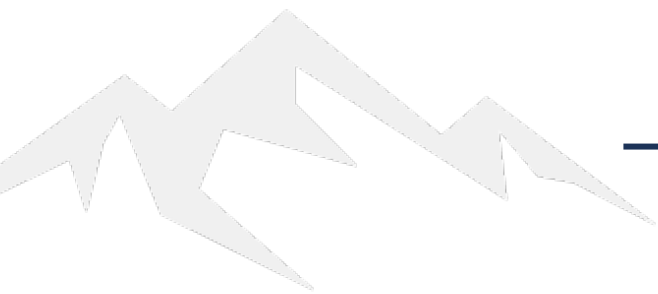
All of these instructional approaches – direct, systematic, explicit instruction and scope and sequencing – make up the teaching methods that aid in closing the achievement gaps for students.

Prioritize Skill Mastery

Additionally, another important key to teaching students to mastery in a subject is the time spent learning that subject. Instructional time in a classroom is often too short for a student to fully grasp the concept, especially in younger student classrooms. To help students excel in their studies, “[h]aving a schedule with sufficient instructional time is the first step.” (21)

With the types of teaching methods laid out above and the clarity and precision they require, teachers need more adequate instructional time to teach their subjects, and students of all ages need more adequate time to learn and understand.

Too often, students are introduced to a new topic, only to be herded to another just thirty minutes to an hour later. However, even adults in new jobs usually receive more than thirty minutes to an hour of training.



According to the National Institute for Direct Instruction, “Student success depends on the rate at which students master material presented in the DI [Direct Instruction] programs. The schedule should include enough time for students to make adequate progress at mastery through the programs and allow teachers to accelerate higher performing students or provide additional practice to students having problems mastering concepts or skills.” (21)

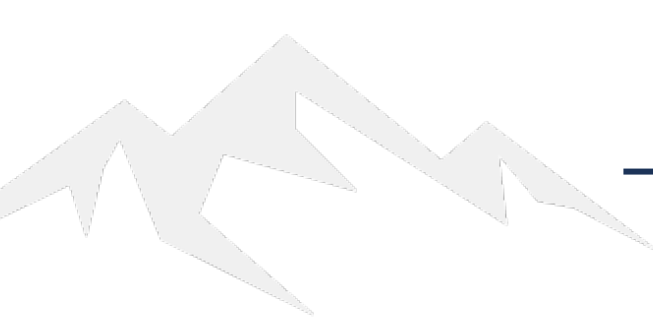
In fact, the institute suggests the following:

- 90-minute reading block in the morning;
- 60-minute reading block in the afternoon for kindergarten and first grade, along with students below their grade levels in second grade and above;
- 60-minute block for language instruction after kindergarten;
- Additional 60-minute mathematics block for students of all ages;
- Common instructional times for each grade level for all students;
- And, a second additional reading period for middle school students placing in Corrective Reading Decoding A or B1. (21)

While this schedule may seem literacy focused, it is important to remember that all subjects are rooted in literacy, even mathematics, so understanding how to read and write critically is crucial to student success.

Moreover, when students have two or more reading periods a day, they “will learn a great deal of science and social studies information. Science and social studies concepts are systematically pre-taught in the upper levels of the Reading Mastery program, integrated into the stories and then reviewed to ensure students’ retention of the material. Some schools have used no other science program, and their students have performed outstandingly on tests of their scientific knowledge.” (21)

Giving students enough time to see the examples set, practice them together, and then implement the new skill takes patience and time. It’s easy to memorize a formula or phrases in a book but to actually understand why a formula works and analyze what the phrases mean in a book creates an even larger, richer learning impact. One that only comes with the sufficient effort, practice, and instructional time. Students need more time to absorb a subject fully, and one of the easiest ways to close the achievement gap is to give teachers the extra instructional time to teach them.



Adopt High-Dosage Tutoring

Finally, high-dosage tutoring is shown to be highly effective in responding to student learning loss. High-dosage tutoring uses human instruction and follows a research-based instructional model. This model focuses on supplemental classroom-based education, addressing student learning gaps from core instruction in individual or small group settings three or more times a week.

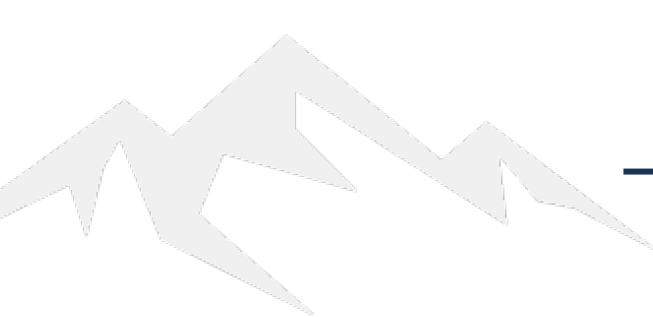
As the achievement gap persists, “top education researchers agree that tutoring programs for students who lost ground over the last six months should be a top priority for federal investment.” (22) Tutoring dates back centuries, and, most of the time, it was reserved for upper class families who could afford personal tutors.

Often times, this is still true today. However, high-dosage tutoring sessions are typically embedded within a school day and occasionally can be funded by federal grants or funds, depending on various circumstances. This type of tutoring allows for students to participate in either one-on-one tutoring sessions (which are usually more expensive) or small group tutoring sessions (which are usually more cost efficient).

Tutoring can be an expensive endeavor, but with a well-trained tutor, many students are able to experience accelerated achievement gains. One of the reasons high-dosage tutoring yields results for schools is because it can work for a variety of subjects and trained tutors are extremely effective and of high quality.

For teaching struggling students, “the theory of action is clear: In such small groups, teachers can better customize teaching to the specific content gaps a student has missed or the prerequisite skills they need to practice. And it’s easier for a student to develop a relationship with a tutor they see at dedicated hours several times a week.” (22) High-dosage tutoring has been a successful means of aiding student achievement. In fact, according to The Center for American Progress,

“Studies continuously show the benefits of high-dosage tutoring: It increases students’ learning by an additional three to 15 months across



grade levels;¹³ moves an average student from the 50th percentile to the 66th percentile;¹⁴ and is, overall, 20 times more effective than standard tutoring models for math and 15 times more effective for reading.¹⁵ These increases in achievement show great potential for using high-dosage tutoring as a school improvement strategy. As schools continue to focus on long-term improvement of their education, implementing a high-dosage tutoring program can provide them with the tools necessary to ensure students' academic achievement by catching knowledge gaps early, meeting students where they are, and providing evidence-based intensive recovery. Indeed, implementing these programs with fidelity allows schools to recover current learning loss while also gaining the long-term knowledge and skill to scale programming as needed moving forward.” (23)

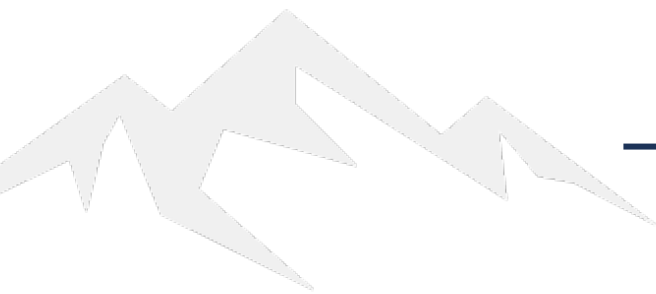
As evidenced, high-dosage tutoring is an effective method in assisting students in meeting and exceeding their academic skill level. It requires a commitment and a routine, both of which help create a consistent, stable, and judge-free learning environment for students who are struggling academically. This “boosts students’ confidence as they begin to make progress. ‘The lowest-performing kids tend to sit quietly in school and hope no one will notice them. With tutoring, there’s an adult who gets to know them and cares about them deeply and gives them loads of opportunity to let them show that they can succeed.’” (22)

Implementing high-dosage tutoring plans for struggling students would be a great step in closing the achievement gap and helping students excel in their studies as they go through school.

Conclusion

G.K. Chesterton said, “Education is simply the soul of a society as it passes from one generation to another.” (24)

This will result in an impoverished soul being passed along unless we can implement the effective practices in education that close the achievement gaps that exist and raise student achievement overall for the next generation.



The most robust research guiding us to accomplish this purpose points to direct, explicit, systematic instruction, embracing a rigorous scope and sequence in each content area, enhancing time devoted to direct instruction, and employing high-dosage tutoring for students who need it.

By revisiting these time-tested practices, we can be confident that, if implemented with fidelity by trained teachers, they will have a significant influence in closing the achievement gap.

Resources for Research-Based Methods

- [Project Follow Through](#)
 - This was a federally funded initiative from 1967-1977 that “was charged with determining the best way of teaching at-risk children from kindergarten through grade 3. Over 200,000 children in 178 communities were included in the study, and 22 different models of instruction were compared” ([Project Follow Through](#)). The final result proved that direct instruction was the most successful in raising a student’s basic academic skills, problem-solving skills, and self-esteem.

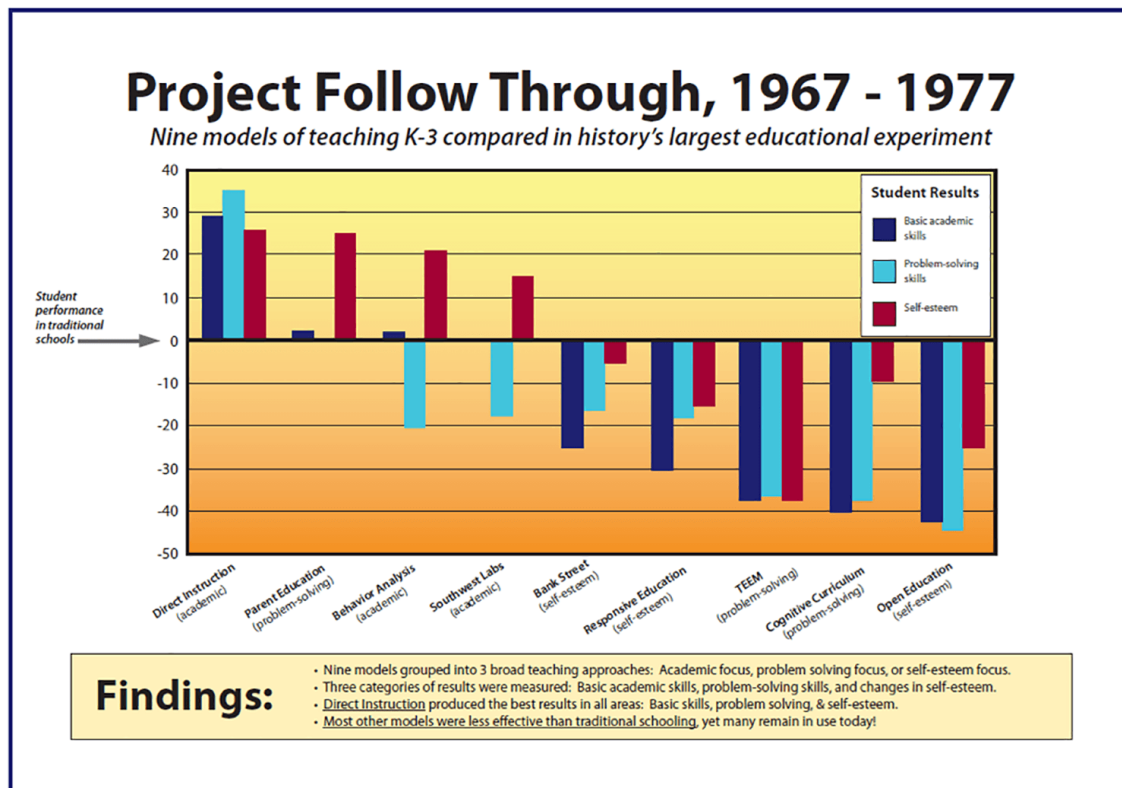
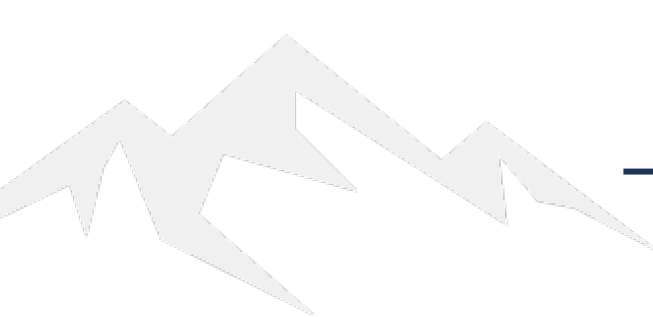
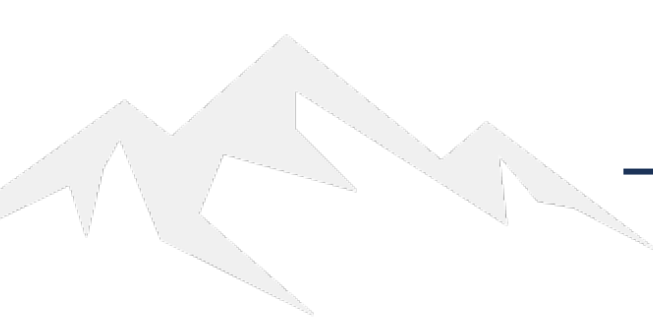


Figure 6. Project Follow Through Findings. *While Project Follow Through may be a dated study, it shows the effectiveness of direct instruction and proves that direct instruction has been a successful teaching method that has stood the test of time.

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- Effective Reading Instruction for Struggling Readers: The Role of Direct/Explicit Teaching, by William H. Rupley, Timothy R. Blair, & William Nichols.

Citation: Rupley, W. H., Blair, T. R., & Nichols, W. (2009, April). Effective reading instruction for struggling readers: The role of direct/explicit teaching. *Reading and Writing Quarterly*, 25(2): 125-138.

- Abstract: "Struggling readers are more likely to learn essential reading skills and strategies if the direct or explicit model of instruction is part of the teacher's repertoire of teaching methods. Directly/explicitly teaching reading means imparting new information to students through meaningful teacher–student interactions and teacher guidance of student learning. In this approach, the teacher clearly leads the teaching–learning process. At the heart of the direct instruction method are explicit explanations, modeling or demonstrating, and guided practice. Direct/explicit instruction needs to be an integral part of learning the major content strands of the reading process—phonemic awareness, phonics, fluency, vocabulary, and comprehension" (Rupley, W. H., Blair, T. R., & Nichols, W., 2009).
- *Theory of Instruction: Principles and Applications*, by Siegfried Engelmann and Douglas Carnine
 - This book is often cited as an example of how direct instruction can improve student achievement, especially in the early grades.
- *Explicit Instruction: Effective and Efficient Teaching*, by Anita L. Archer and Charles A. Hughes
 - This book is an excellent teaching resource for educators interested in explicit instruction. It explains the fundamentals of explicit instruction and provides the tools for special education and general education teachers to implement it in any grade for any content area.
- [McGraw Hill Direct Instruction Case Study](#)
 - This 2020 case study reviews the experience of Kevin Surrey and Suzy Cudapas, Head of Direct Instruction, Maths and English. It explains what direct instruction is, how teachers utilize the direct instruction model, and follows a student in their academic

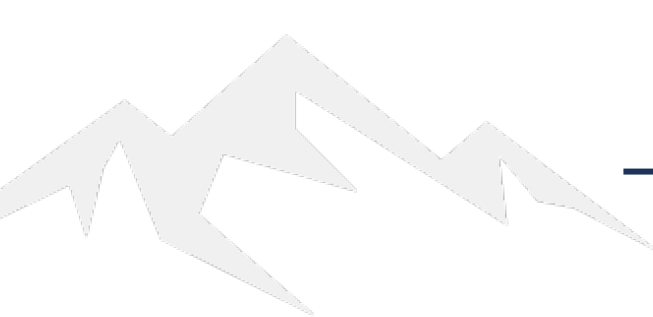


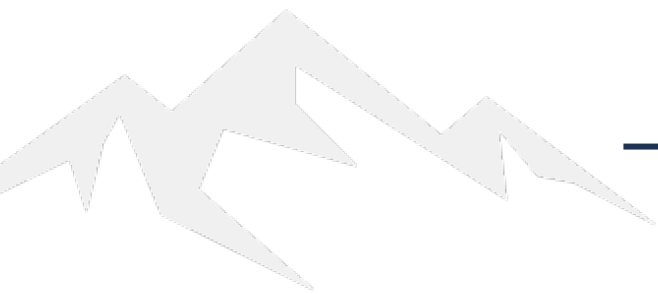
journey, who improved greatly being taught with direct instruction methods.

- [Reading Rockets Direct Instruction \(DI\) Reading Intervention Program](#)
 - This article examines direct instruction as a whole. Under the Case Study section, Goethe Middle School in Sacramento, California is discussed. In 1997-1998, this school implemented the direct instruction approach after realizing their students struggled with reading. By the end of the schoolyear, student success in reading skills had more than doubled.
- [Louisiana Threads the Needle on Ed Reform](#)
 - This 2017 article discusses Louisiana's educational reform. Louisiana was a local controlled state that implemented direct instruction in their schools using high quality curricula.

Additional Resources

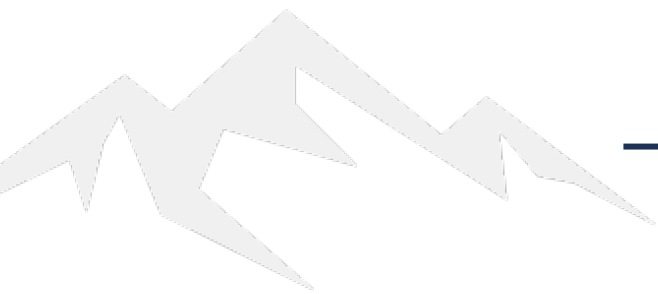
- [Evidence Advocacy Center \(E.A.C.\)](#)
 - "E.A.C. serves as a knowledge management system, an accessible repository of research-based practices and policies, to connect states, districts, schools, higher education institutions, and parent advocates to trustworthy resources that are proven to have an impact."
- [Institute of Education Sciences \(IES\)](#)
 - A research entity within the U.S. Department of Education, and "the nation's leading source for rigorous, independent education research, evaluation, and statistics."
- [Florida Center for Reading Research \(FCRR\)](#)
 - "The Florida Center for Reading Research (FCRR) is an interdisciplinary research center at Florida State University. Drawing from multiple disciplines, FCRR investigates all aspects of reading and reading-related skills across the lifespan. Through rigorous and robust research, innovation, and engagement, FCRR advances the science of reading to improve learning and achievement from birth through adulthood."

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- [Colorado Department of Education Schoolview](#)
 - Schoolview provides access to Colorado school profiles, enrollment numbers, student-teacher ratios, performance ratings, attendance rates, average SAT & PSAT scores, and more.
 - Parker Core Knowledge is an example of a K-8 school that uses a direct instruction model. They consistently rank in the top 3 for Colorado's best public elementary and middle school (US News & World Report), and they have been ranked the #1 best charter elementary and middle school in Colorado in 2022, 2023, and 2024 by US News & World Report. See their [Schoolview](#) profile for achievement data.
 - Liberty Common School is an example of a K-12 school that uses a direct instruction model. They are consistently high ranking in their assessment scores, including their PSAT and SAT scores. See their [Schoolview](#) profile for achievement data.

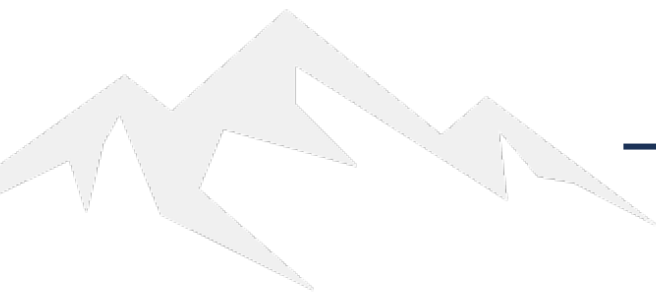


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