District of Columbia
Office of the State Superintendent of Education

HIGH-DOSAGE TUTORING: A PROVEN STRATEGY TO ACCELERATE STUDENT LEARNING

Guide for Local Education Agencies

March 15, 2021

Table of Contents

Purpose of This Guide

Throughout the coronavirus (COVID-19) global public health emergency, schools, teachers, students, and families have strived to keep students safe and healthy, and to keep their learning moving forward. However, inequities that previously existed were laid bare and exacerbated this past year. DC's education system must ensure that the global public health emergency does not set back student learning for years to come. The need is particularly acute for students who have been furthest from opportunity, students with disabilities, and students who are English learners. To mitigate both short-term and long-term effects of the pandemic, local education agencies (LEAs) are working to swiftly identify and address any unfinished teaching and learning that has resulted from extended virtual learning during the public health emergency.

LEAs have expressed interest in tutoring as one potential approach for accelerating students' learning during summer school and in the coming school year. **High-dosage tutoring** is a proven, effective strategy for increasing student outcomes, with a strong research base (Fryer, 2016). For LEAs interested in high-dosage tutoring, this guide provides detail on its features and practical considerations for establishing and managing an effective high-dosage tutoring program. High-dosage tutoring programs would be allowable uses of various funding sources:

- New ESSER II Announcement (released Feb. 5, 2021)
- CARES ESSER 90% LEA Formula Funding Allowable Uses* – Includes Uses Based on Existing Grant Programs (AEFLA, ESEA, CARES, IDEA, MKV, Perkins)
- Scholarships for Opportunity and Results (SOAR) Academic Quality (AQ), Facilities, CARES Equivalent, and Early Childhood Allowable Uses

Unique Features of High-Dosage Tutoring

High-dosage tutoring consists of:

- Intensive tutoring that occurs one-to-one or in *very* small groups on a sustained, daily basis, during the school day, to help all students accelerate their learning in an individualized manner.

- An intentional use of additional time with a specific focus on building prerequisite knowledge and skills while simultaneously integrating new learning that is part of the grade-level curriculum.

High-dosage tutoring is not remedial work. Rather, it focuses on scaffolding academic content so students can access new learning, while also building upon their knowledge and skills base. Research has found that when tutoring is provided at a "high dosage" and with certain features in place, it leads to increased learning for students.

High-dosage tutoring is a different model from informal, infrequent tutoring, which is often provided by less qualified tutors and suffers from remediation approaches and less consistency due to tutor and/or student absence from the program. Some volunteer tutoring programs have research backing their effectiveness, but many volunteer-run tutoring programs lack the intensity and quality that are required to move the needle on student outcomes.

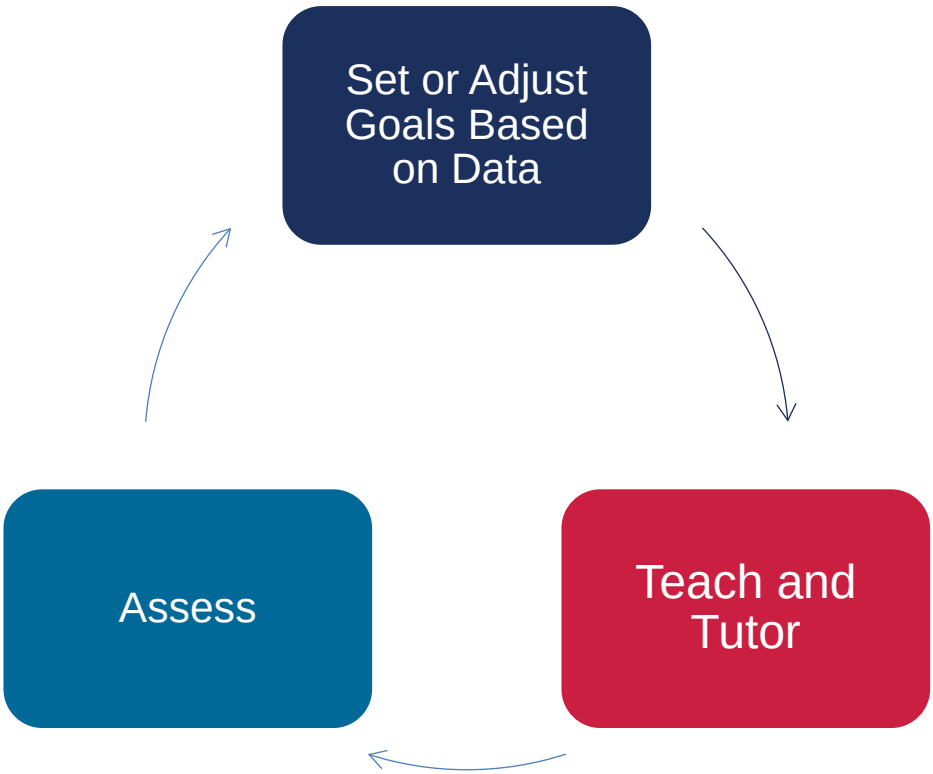
WHAT HIGH-DOSAGE TUTORING IS	WHAT IT IS NOT
Accessible to all • For all students at a school ***Intensive and at least three times per week*** • Up to 3:1 student-tutor ratio • Occurs at least three times per week or ideally every day • Approximately 30-60 minutes per session • During the school day • Treated like a scheduled class • Sustained over the course of a school year ***Provided by a qualified tutor*** • Meets minimum educational criteria such as a bachelor's degree • Has experience with the content • Trained in the tutoring program and role ***Individualized*** • Driven by diagnostic[1] and formative assessment data • Aligned to the student's current skill levels while also connecting what is currently being taught in the classroom ***Responsive*** • A positive mentoring relationship • Assets-oriented to value students' diverse strengths and needs • Committed to high expectations • In addition to core content area instruction and students' other required services, such English language instruction or interventions and accommodations outlined in a student's individualized education program (IEP)	***Remedial*** • For struggling students only • Treated like a punishment ***Low-dosage or irregular*** • Occurs weekly or sporadically • Less than 30 minutes per session • Before or after school • Treated as an optional offering • Higher than a 3:1 student-tutor ratio • For a short period of the school year **Provided by an unqualified tutor** • Help from a peer • A high-school volunteer • An unvetted, untrained tutor **Decontextualized** • Sitting in front of a computer program • Focused only on discrete skills • Filling out worksheets ***A replacement*** • A substitute for other intensive interventions or individualized services a student may need • In place of content area classroom instruction • Cause for a student to miss content area classes

[1] Example diagnostic tools (not comprehensive)

Establishing a Continuous Improvement Cycle

High-dosage tutoring accelerates student learning through a cycle of continuous improvement. In this approach:

- Students' initial goals are set based on diagnostic data.
- Tutoring supplements academic instruction.
- Tutors collect formative assessment data, e.g., exit tickets, to understand students' progress.
- Tutors and teacher discuss both formative and benchmark data to determine new goals and/or adjust instruction.



Best Practices in High-Dosage Tutoring Programs

With a cycle of continuous improvement at the core of the program, best practices in high-dosage tutoring programs can be grouped within five overarching areas.

Leadership and Planning

Given the intensive amount of time required for high-dosage tutoring to increase outcomes for students, program goals, measures, schedules, and instructional materials are essential foundations. If the program commitment is not evident in dedicated schedules, clear goals, appropriate assessments, and high-quality materials, buy-in from staff may be inconsistent; tutoring will be less effective; and students' experiences with tutoring may be disappointing.

PLANNING QUESTIONS	SAMPLE DATA SOURCES AND CONSIDERATIONS
How does the program demonstrate a vision for success and growth mindset toward students (vs. a deficit mindset)?	• School's mission and values statements • Staff self-reflections on unlocking students' potential • Vision and goals statement for the program
Based on the school's data, what are the social-emotional goals of the program?	• Attendance data • Family survey responses • Student survey responses
Based on the school's data, what are the academic goals of the program?	• Course/class test scores and grades • Diagnostic score reports
What assessments will be used to measure students' progress and the program's success?	• Example diagnostic tools (not comprehensive) • Sample assessments (examples) • Ensure score reports provide usable results for teachers, tutors, and students to interpret
How will assessments be used as a system?	• Determine the frequency for assessing progress • Determine the process for assessment data review • Set up systems for teachers and tutors to review data collaboratively

High-quality instructional materials

High-quality instructional materials are a non-negotiable and must be aligned to the Common Core State Standards and directly connected to a high-quality, grade-level core content curriculum. This is critical because high-dosage tutoring is not remedial work, rather it is focused on scaffolding academic content so that students' can access new learning while also building upon their knowledge and skills base.

PLANNING QUESTIONS	CONSIDERATIONS
Are core curricular materials of high quality?	• Sample resource for evaluating curriculum quality
Are tutoring materials worthy of students' time and attention, i.e., of quality, rigorous, and at the right complexity for the grade level?	• Make sure tutoring materials build foundational skills and access students' prior knowledge in order to make learning transferable across content areas
Are tutoring materials supplemental to and coordinated with grade-level skills and/or content area instruction?	• Make sure tutoring materials scaffold content to make it accessible to students based on their needs • Consider ways that tutoring materials support effective use of technology to enhance students' learning

Intensity and Accessibility

To be effective, high-dosage tutoring must occur at a dedicated time, one-to-one or in very small groups, and occurs at least three times a week for the duration of the school year.

Important: Tutoring is not a substitute for core instruction, other intensive interventions, or other individualized services a student may need, such as English learner programming.

PLANNING QUESTIONS	CONSIDERATIONS
Is tutoring accessible to all students?	• Schedule tutoring sessions separately from core content area instruction, with no students missing grade-level content instruction in the general education classroom • Make the tutoring schedule visible in daily schedules
Is the tutoring available at a high-dosage?	• Ensure a low student-tutor ratio, i.e., 3:1 or lower • Schedule tutoring sessions for 40-60 minutes daily, or at least three times per week • Commit to the program for the full duration of summer school or the school year for maximum impact
Is the program commitment evident in the program design by creating feasible schedules?	• Make the schoolwide commitment to the program clear to all staff • Ensure the schedule can be implemented smoothly by all staff and students

Qualified Staff

Qualifications, compensation, recruitment, and hiring processes are foundational to building a quality high-dosage tutoring program. While a tutor may not need all the same qualifications as a classroom teacher, the tutor must be prepared to build relationships with students, explain grade-level content and skills, and provide appropriate feedback.

Volunteer tutoring is not recommended for high-dosage tutoring programs because of the risks of low qualifications and tutor attrition and absences, which would not help accelerate students' learning or support the relational aspect of tutoring

PLANNING QUESTIONS	CONSIDERATIONS
Do all tutors have the minimum qualifications required to tutor in the subject area?	• Determine the minimum requirements, considering whether you will include undergraduate students in your pool or require a bachelor's degree • For middle and high school, specific content knowledge in the tutoring subject area will be needed
Would the school prefer to hire and manage tutor staff, or outsource to an external tutoring service?	• If outsourced, ensure the school will have oversight of program and personnel quality • If recruiting and hiring the tutors directly, the LEA may have more workload, but would be able to select the staff they want • The LEA could consider whether and how to engage local colleges and universities to recruit graduate students as tutors • Hiring managers could consider short, 10-minute tutoring demonstrations during the interview process to illustrate how the potential tutor would interact with students and what their starting point would be, if hired • When budgeting for tutor compensation, consider what salary will both attract and retain reliable, qualified staff who will fulfill the commitment to students for the school year and provide effective tutoring that will accelerate students' learning
How will tutor performance evaluated?	• Set the expectation of a cycle of continuous improvement to provide ongoing feedback to tutors

Effective Tutoring Practices

Especially given the traumatic times of the past year, social-emotional learning and community building upon return to school are critical foundations. A consistent, caring adult can provide social-emotional as well as academic supports and mentoring.

PLANNING QUESTIONS	CONSIDERATIONS
Is relationship-building an intentional part of the program?	• Onboarding and ongoing training of tutors is a must-have. School-wide expectations for fostering a positive school climate and managing behavior must be made clear.
Are social-emotional supports built into the tutoring program?	• Tutors should be provided training and ongoing feedback on: o Culturally responsive and positive approaches to managing students' behavior o How to build positive relationships o How to support students' social-emotional learning o How to de-escalate rather than trigger student frustration o How to foster a growth mindset
Are tutors trained to use tutoring time effectively?	• Ensure tutors have access to data that indicates the student's current skills and goals • Train tutors on the curriculum • Demonstrate for tutors how to use a range of tasks to develop listening, speaking, reading, and writing
Are tutored trained to use formative and benchmark assessment data?	• Train tutors to address unfinished learning and current classroom content • Ensure tutors differentiate for students based on goals • Provide examples on how tutors can provide feedback to students effectively
Is communication between tutors and teachers embedded within the program as part of data-driven tutoring and ongoing formative assessment?	• The tutor and teacher should both be aware of what the student is working on, how it is connected to core content area classroom instruction, and how the student's learning is accelerating
At the program level, continuous improvement cycles are necessary to optimize tutoring instruction time and learning.	• Program management can us a "walking around" system for informally observing tutoring sessions, providing actionable feedback to tutors, and identifying program-level issues that need to be addressed. • In addition to formative data, regular benchmark assessment data should be reviewed for the program as a whole and for each student, with actionable next steps resulting from the review.

Research-based Example

A randomized control trial conducted by Harvard University found that intensive tutoring was effective in increasing students' test scores by .19 to .31 standard deviations (Cook, Dodge, Farkas, Fryer, Guryan, Ludwig, & Steinberg, 2015). This is one research-based example to illustrate how high-dosage tutoring could be designed and implemented.

PROGRAM FEATURE	DESCRIPTION
Participants	• 2,718 male students in grades 9-10 in 12 Chicago public schools • Economically disadvantaged • Participated in either intensive individualized instruction or the control group
Focal area	• Math
Program measures	• ACT Inc.'s EXPLORE and PLAN tests, which CPS administers to ninth and 10th graders, respectively • In-person achievement tests designed for the US Department of Education's NELS:88 study, administered to a randomly selected subsample
Program structure	• Intensive, individualized 2:1 math tutoring • One hour per day every day, during the school day • Taken as a for-credit class, in place of an elective or second period of math class • Up to 165 contact hours per year • 100 hours of tutor training were provided, with tutors, receiving daily feedback and an opportunity to exit the program if needed • Tutors taught six periods a day • A site director oversaw each school's tutoring program, managing behavior, communication with school staff, daily feedback, and professional development
Tutors	• 53 tutors, of whom about half were people of color and about 35 percent were bilingual in Spanish • Focused on recruiting people who with strong math skills, who were willing to devote a year to public service, e.g., recent college graduates or retirees • Did not necessarily have extensive prior training or experience as teachers. • Paid tutors $17,000 plus benefits for the school year (2013-14 school year)
Tutoring Session	• The first half of each tutoring session focused on building foundational skills • The second half focused on accelerating learning in the current curriculum • Tutors used internal formative assessments of student progress to individualize instruction
Results	• Effects for the group receiving intensive tutoring were .19-.31 standard deviations higher than the control group (depending on test) • Math grades increased by .5 standard deviation • Found reduced failure in math and non-math courses
Costs	• $3,800 per student in the study

National Student Support Accelerator Toolkit

The National Student Support Accelerator from the Annenberg Center at Brown University provides comprehensive resources for those interested in implementing high-impact tutoring. They provide open-source Accelerator tools and resources to make structuring, implementing and scaling high-quality, high-impact tutoring programs as straightforward as possible.

BEST PRACTICE AREA	EXAMPLE TOOLS
Leadership and Planning	• Tutoring Program Model Dimensions Planning Tool • Tutoring Cost Calculator • Sample data collection tools
High-quality instructional materials	• Sample resource for evaluating curriculum quality • Sample alignment of tutoring curriculum to school curriculum
Intensity and Accessibility	• Actions and Practices Reflection Tool
Qualified Staff	• Sample tutor job descriptions and recruitment strategies • Tutor training guides
Effective Tutoring Practices	• Sample tutoring session structure • Tools for communication with families and teachers

References

Annenberg Center at Brown University. (2021). *National Student Support Accelerator*. https://studentsupportaccelerator.com.

Ander, R., Guryan, J. & Ludwig, J. (2016). *Improving Academic Outcomes for Disadvantaged Students: Scaling Up Individualized Tutorials*. The Hamilton Project. www.hamiltonproject.org/papers/improving_academic_outcomes_for_disadvantaged_students_scaling_up_individua.

Barnum, M. (2017, February 13). What If Every Struggling Student Had a Tutor? It Won't Be Cheap, but It Might Be Worth It. *The 74 Million*. www.the74million.org/article/what-if-every-struggling-student-had-a-tutor-it-wont-be-cheap-but-it-might-be-worth-it/.

Cook, P. J., Dodge, K., Farkas, G., Fryer, R. G., Guryan, J., Ludwig, J., & Steinberg, L. (2015). *Not too late: Improving academic outcomes for disadvantaged youth. Institute for Policy Research. Northwestern University Working Paper WP-15-01.* https://scholar.harvard.edu/fryer/publications/not-too-late-improving-academic-outcomes-disadvantaged-youth.

Department of Research and Evaluation, Austin Independent School District. *High Dosage Tutoring Program Summary 2011-12*. www.austinisd.org/dre/surveys/2011-2012/high-dosage-tutoring-program-summary-2011-2012.

Fryer, R.G. (2016). *The Production of Human Capital in Developed Countries: Evidence from 196 Randomized Field Experiments*. Working Paper 22130. National Bureau of Economic Research. www.nber .org/system/files/working_papers/w22130/w22130.pdf.

Fryer, R.G. (2014). *Injecting Charter School Best Practices into Traditional Public Schools: Evidence from Field Experiments*. Harvard University. https://scholar.harvard.edu/files/fryer/files/2014_injecting_chart er_school_best_practices_into_traditional_public_schools.pdf.

Kraft, M. & Goldstein, M. (2020). Getting tutoring right to reduce COVID-19 learning loss. Brown Center Chalkboard. www.brookings.edu/blog/brown-center-chalkboard/2020/05/21/getting-tutoring-right-to-reduce-covid-19-learning-loss/.

Nickow, A.J., Oreooulos, P., & Quan, V. (2020). The Impressive Effects of Tutoring on PreK-12 Learning: A Systematic Review and Meta-Analysis of the Experimental Evidence. *Ed Working Paper, 20 (267).* Annenberg Institute at Brown University https://doi.org/10.26300/eh0c-pc52

Robinson, C.D., Kraft, M.A., Loeb, S., & Schueler, B.E. (2021). *Accelerating Student Learning with High-Dosage Tutoring: Ed Research for Recovery Design Principles Series*. Annenberg Institute at Brown University and University of Virginia. https://annenberg.brown.edu/sites/default/files/EdResearch_for_Recovery_Design_Principles_1.pdf.

District of Columbia
Office of the State Superintendent of Education
1050 First Street, NE, Washington, DC 20002