

Appendix B

Study Recruitment Flyer

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Studying a Toolkit to Support Evidence-Based Algebra Instruction in Middle and High School

What is the opportunity?

The U.S. Department of Education (ED) is offering schools and districts an exciting opportunity to help educators use evidence-based practices for teaching algebra. A new resource, called the *Toolkit to Support Evidence-based Algebra Instruction in Middle and High School*, is a comprehensive tool that translates research and expert recommendations into effective strategies for teachers to use in the classroom. The Toolkit is based on the What Works Clearinghouse practice guide¹, [Teaching Strategies for Improving Algebra Knowledge in Middle and High School Students](#). Through participation in an upcoming study, educators may receive free, individualized support as they begin using this new Toolkit and implementing its evidence-based practices to improve Algebra instruction in your district.

What is the Toolkit?

School districts that use the Toolkit will engage in a series of in-person and online activities that aim to make evidence-based practices for teaching algebra accessible and engaging to educators. Over about five months, the Toolkit guides educators through a series of modules that focus on recommended practices for teaching algebraic content. Within each module, district and/or school instructional leaders will facilitate a professional development session for algebra teachers focused on one recommended practice based on a guidebook for facilitators that is included with the Toolkit. Teachers will then begin using the practice—supported by a suite of online Toolkit resources that include videos, sample lessons, worked examples, and interactive activities—to help them apply the practice in their classroom. Using the Toolkit’s diagnostic resources, teachers and instructional leaders will also collect data to assess their use of the practice and meet to discuss possible improvements. After working through the modules, teachers and instructional leaders will develop strategies to institutionalize the practices long-term.

What additional supports will districts who participate in the study receive?

Half of the participating schools in each participating district will receive individualized support from the team that developed the Toolkit. This includes a team member co-delivering an introductory session for teachers on the recommended practices with instructional leaders (to be identified by the district, with support from the study team), meeting regularly with the instructional leaders to help them integrate the Toolkit in the district’s professional learning activities and adapt it to the district’s context and goals, and offering teachers monthly office hours to answer questions about implementing the recommended practices.

Who will participate in the study?

The study team will work with districts to identify and recruit eligible middle and high schools that are interested in participating in the study. Before the 2024-2025 school year, the study team will randomly assign recruited schools within a district to one of two groups:

- **First group.** In schools assigned to the first group, Algebra 1 teachers will receive early and exclusive access to the Toolkit and the additional supports described above and participate in

¹ The What Works Clearinghouse is an investment of the Institute of Education Sciences within the U.S. Department of Education. The practice guides present recommendations for educators to address challenges in their classrooms and schools and are based on reviews of research, the experiences of practitioners, and the expert opinions of a panel of nationally recognized experts.

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associated professional development sessions in the 2024-2025 school year. This Toolkit will not be publicly available until after the conclusion of the 2024-2025 school year.

- **Second group.** In schools assigned to the second group, Algebra 1 teachers will continue to receive their usual professional development supports in the 2024-2025 school year and will receive access to the Toolkit in the 2025-2026 school year. These schools will not receive the study's additional supports but will likely benefit from the district's experiences implementing the Toolkit with the first group.

Why are we conducting this study?

This study will result in valuable information about how the Toolkit can help districts, schools, and teachers support student success in Algebra 1 classrooms. It will assess whether using the Toolkit helps teachers use recommended, evidence-based practices for Algebra 1 instruction and if using those practices helps improve students' algebra performance. The study will also examine how educators use the Toolkit, including what worked well and how they overcame any challenges. These insights will provide evidence about the extent to which the Toolkit is effective in improving Algebra 1 instruction and learning and will help districts across the country as they begin using the Toolkit.

What are the study activities?

- **In all participating schools,** Algebra 1 teachers in grades 8 & 9 will be asked to:
 - Attend a 1-hour study orientation session at the start of the 2024-2025 school year.
 - Complete a short web survey in fall 2024 and spring 2025 to answer questions on their comfort with teaching algebraic content and the supports they currently receive to do so.
 - Assist the study team with administering a short paper survey to students in spring 2025, which will include collecting parent or guardian consent forms. Students will answer questions on their perceptions of the classroom environment as well as their mathematical mindset and understanding of algebraic content.
- **Algebra 1 teachers in the first group of schools** will be asked to:
 - Implement the Toolkit, as described above.
 - Complete four short implementation logs as they work through the Toolkit to share their experiences in using the Toolkit and implementing the recommended practices.
 - Some teachers will be invited to participate in focus groups in spring 2025 to provide feedback on the successes and challenges of utilizing the Toolkit and implementing the recommended practices.
- **Instructional leaders in or working with the first group of schools** will be asked to:
 - Facilitate Toolkit professional development activities for the teachers, with assistance and support from study staff.
 - Complete four short implementation logs as they guide teachers through the Toolkit to share their reflections on using the Toolkit and supporting teachers in implementing the recommended practices.
 - Participate in an interview in spring 2025 to provide feedback on the successes and challenges of utilizing the Toolkit and implementing the recommended practices.
- **All districts** will be asked to:
 - Provide student rosters of each participating classroom to the study team in fall 2024.
 - Provide school and student-level administrative data to the study team at the conclusion of the

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2024-2025 school year.

What are the benefits of participating in the study?

Schools in the first group will receive early and exclusive access to the Toolkit during the 2024-2025 school year, before the Toolkit is publicly available. In addition, these schools will receive individualized supports to help them use the Toolkit, including an orientation on the Toolkit, training, and office hours directly from the team who developed the Toolkit. By participating, all districts will help provide valuable, evidence-based information on how the Toolkit can best improve educators' algebraic teaching and students' algebraic learning.

In addition, participants will be compensated for the time spent completing study activities.

- All districts: \$2,000 for providing student rosters and administrative data.
- First group: Instructional leaders will each receive up to \$660 and Algebra 1 teachers will each receive up to \$1,020 for participating in Toolkit implementation activities and assisting with study data collection activities.
- Second group: Algebra 1 teachers will each receive up to \$430 for assisting with study data collection activities. Schools will receive \$2,500.

Who is conducting the study?

The Regional Educational Laboratory Central (REL Central), which is funded by ED and operated by Mathematica, is conducting this study. REL Central partners with key stakeholders in central U.S. states to develop evidence that can inform decisions about education policy, programs, and practice (<https://ies.ed.gov/ncee/rel/region/central>). Mathematica is a nonpartisan research firm that designs studies, collects data, and conducts analysis for governments, foundations, and the private sector (www.mathematica.org).

How do I find out more?

Please contact Mathematica's study director, Dr. Tim Kautz, by phone at XXX-XXX-XXX or by email at XXX@mathematica-mpr.com

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