



Intensified Algebra I | An intervention program for struggling students

Help struggling students *succeed* in algebra and beyond. Transform academic beliefs and behaviors. Equip teachers with cohesive, integrated resources to enable them to help students in need.



The University of Texas at Austin
Charles A. Dana Center

UIC LEARNING SCIENCES
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A collaboration between the Charles A. Dana Center at The University of Texas, the Learning Science Research Institute at the University of Illinois at Chicago, and Agile Mind

In districts nationwide, as many as 50% of students fail Algebra I the first time and must repeat it—some more than once. What happens to those who are one or more grade levels behind before they *begin* Algebra I?

Intensified Algebra I is a comprehensive program for an extended-time Algebra class that helps students who are significantly behind become successful in algebra *within one academic year*. It transforms the teaching of algebra to students who struggle in mathematics.

Help students succeed.

Central to the program is the idea that struggling students need a powerful combination of additional time, a challenging curriculum, and cohesive, targeted supports and interventions. *Intensified Algebra I* addresses the need for a robust Algebra I curriculum that provides embedded review-and-repair support for the many dimensions of learning mathematics, including social, affective, linguistic, and cognitive learning strategies.

Intensified Algebra I uses an asset-based approach that builds on students' strengths and helps students to develop academic skills and identities by engaging them in the learning experience. The program is designed to help struggling students succeed in catching up to their peers, equipping them to be successful in Algebra I and their future math and science courses.

Help teachers succeed.

Helping students to catch up is highly demanding work. *Intensified Algebra I* supports 70-90 minutes of daily classroom instruction and includes professional services, embedded professional supports, assessment tools, classroom instruction tools, curriculum, and real-time reports on student progress. The program is designed in a blended model, enabled by technology and supported with print materials.

Transform beliefs and behaviors.

Intensified Algebra I melds best practices in algebra instruction with advances in developmental and social psychology and in research on struggling learners to shape students' engagement, confidence, and commitment to challenging academic work.

Intensified Algebra I

- Targets conceptual understanding, associated skills, and related problem-solving and reasoning capabilities
- Provides integrated, effective review/repair strategies
- Supports ongoing, distributed practice
- Re-engages learners through visualizations and other multiple representations of mathematical ideas
- Integrates interventions from social psychology to motivate and build students' positive beliefs about their academic abilities
- Encompasses enhanced formative assessment strategies and real-time data to inform instruction
- Includes supports for struggling students and for literacy and language development

For teachers...

New and experienced teachers benefit from comprehensive support:

- **Research-based and standards-aligned instructional resources**, enriched by visualizations of key mathematical concepts, that increase student engagement and learning
- **Resources, tools, and classroom routines** that enable teachers to establish positive learning environments in an extended-period class, while intensifying students' progress
- **Ongoing online assessment tools** that provide immediate feedback and real-time reporting
- **Tools for higher-quality class preparation**, including lesson plans, teaching advice, and strategies for improving student performance
- **Professional development** with master teachers—both face-to-face and web-based

For students...

Intensified Algebra I helps students thrive with a challenging mathematics curriculum:

- **In-depth, hands-on exploration tools**, including animations, simulations, and practice problems, to build comprehension of key concepts and skills
- **Continuous feedback** with interactive animations, formative assessments, hints, and self-test questions and answers
- **Differentiated instruction** that targets needed practice and review through rich visualizations, multiple representations of concepts, and daily small-group activities
- **Strategic routines and structures** to access and organize students' growing understanding of crucial mathematics content

For more information on how to bring Intensified Algebra I to your school or district:

Call toll free: (866) 284-4655 select "2"

Email us at info@agilemind.com



Development History

The *Intensified Algebra I* program responds to an urgent request from members of the Urban Mathematics Leadership Network (UMLN), an organization of mathematics leaders in 25 of the nation's largest school districts. Mathematics directors and superintendents from UMLN districts identified the high failure rate in algebra classes as their top mathematics priority and called for development of a program to address this need.

Intensified Algebra I is the result of a deep collaboration of the Charles A. Dana Center at the University of Texas at Austin, the Learning Sciences Research Institute at the University of Illinois at Chicago, Agile Mind, and leading educators throughout the country. The program was developed with support from the National Science Foundation, the Searle Funds of the Chicago Community Trust, the Bill and Melinda Gates Foundation, and the Carnegie Corporation of New York.

Initial evaluations of *Intensified Algebra* are promising. For example, *Intensified Algebra* students have shown improved attitudes and beliefs and demonstrated significant pre- to posttest gains on algebra assessments. These promising findings have paved the way for a larger, more rigorous NSF-funded study of the program.

Agile educators. Agile learners. Agile tools to support high achievement.

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