

Why Is It Important?

One of the core academic subjects, mathematics comprises many important skills required in typical daily activities. Further, in today's increasingly technological society, more and more jobs are related to mathematics and science. Because of this, it is critical that students begin to develop essential mathematic concepts and skills beginning at an early age.

Primary Topics

Mathematics skills are essential for students to be successful in school. The IRIS Center provides resources on mathematics-related topics:

- » High-quality mathematics instruction
- » MTSS/RTI for mathematics
- » Algebra
- » Identifying and addressing student errors

Evidence-Based Practice Summaries Tool

Search this tool for information about instructional strategies and interventions, including the level of effectiveness and age groups for which those strategies and interventions are designed. Links to further information are also available for those who wish to learn more.



Professional Development

The IRIS Center offers four distinct professional development options:

- » **Free Open-access Website** – IRIS creates a host of materials about evidence-based instructional and behavioral practices. These resources are all freely available on our Website.
- » **PD Certificates for Teachers** – This option allows users to earn certificates toward their PD hours. Practitioners can work through a wide variety of our modules and—after taking a pre-test and post-test—receive verification of completion.
- » **School & District Platform** – School and district administrators can assign modules to individual teachers or to groups, send reminder emails, track teacher progress, and export results for accountability purposes.
- » **IRIS Micro-credentials** – These highly focused units provide opportunities for educators to learn and demonstrate discrete skills. Upon successful completion, users earn a digital badge.



Visit Us! iris.peabody.vanderbilt.edu • iriscenter.com

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Follow Us!



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MATHEMATICS INSTRUCTION



IRIS CENTER™

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or iriscenter.com

Serving: Higher Education Faculty • PD Providers • Practicing Educators

Supporting the preparation of effective educators to improve outcomes for all students, especially struggling learners and those with disabilities

IRIS Modules

Based on a proven theory of adult learning and structured around the award-winning *STAR Legacy* instructional cycle, IRIS Modules offer in-depth looks at topics relevant to educators through text, graphics, interactive activities, interviews with experts and educators, and video demonstrations. User-friendly, approachable, and highly engaging, our modules are made up of five components:



Challenge: A case-based video scenario that introduces the topic and invites inquiry

Initial Thoughts: Questions that activate learners' prior knowledge about the topic

Perspectives & Resources: Scaffolded, engaging, and accessible content developed using instructional design principles

Wrap Up: A summary of the module content

Assessment: An opportunity for learners to evaluate what they have learned or need to study further

IRIS Resources About Mathematics

Modules

IRIS Modules about the use of evidence-based practices (EBPs) in mathematics instruction feature interactive activities, video clips of strategies being implemented, and audio interviews with experts to enhance student learning and provide valuable resources for teachers.

High-Quality Mathematics Instruction: What Teachers Should Know

iris.peabody.vanderbilt.edu/math

Learn about:

- » Standards-based curriculum
- » EBPs for teaching mathematics
- » Effective classroom practices

MTSS/RTI: Mathematics

iris.peabody.vanderbilt.edu/rti-math

Learn about:

- » RTI as applied to mathematics in elementary, middle, and high school
- » Instruction, assessment, and data-based decision making at each tier

Case Studies

Ideal for use in personnel preparation courses and PD activities, IRIS Case Studies ask learners to approach realistic instructional scenarios through increasing levels of complexity.

Algebra (Part 1): Applying Learning Strategies to Beginning Algebra

iris.peabody.vanderbilt.edu/ics_alg1.pdf

Learn about strategies for working with students with disabilities who struggle with beginning algebra, including the use of algebra manipulatives, content-specific vocabulary instruction, and graphic organizers.

Algebra (Part 2): Applying Learning Strategies to Intermediate Algebra

iris.peabody.vanderbilt.edu/ics_alg2.pdf

Follow up part one of this two-part series by learning about strategies for working with students with disabilities that include manipulatives, content-area vocabulary, and graphic organizers, this time in the context of intermediate algebra instruction.

Additional Resources

In addition to modules and case studies, the IRIS Center offers:

- » Activities
- » Information Briefs
- » Interviews
- » Video Vignettes
- » Wrap-Around Content Maps
- » Sample Syllabi
- » And more

