

Guides to Evidence-Based Practices for Educators in Secondary Schools

WHAT WORKS
CLEARINGHOUSE™

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U.S. DEPARTMENT OF EDUCATION

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The [Every Student Succeeds Act \(ESSA\)](#) encourages educators to use evidence-based practices. Knowing what works to improve student outcomes can inform school improvement and the design of projects in secondary education.

[What Works Clearinghouse \(WWC\)](#) [practice guides](#) provide recommendations that can help teachers, administrators, and other educators improve student outcomes. Panels of nationally recognized experts draw on WWC reviews of research as well as their own expertise to develop these recommendations and related action steps. The WWC characterizes the level of evidence for each recommendation as "strong," "moderate," or "minimal".

The four practice guides listed here include recommendations for use in secondary schools. Practices that meet the U.S. Department of Education [definition](#) of **Strong Evidence** (Tier 1) under ESSA are shown in green. Practices meeting the definition of **Moderate Evidence** (Tier 2) are shown in yellow. Practices in gray, which the guides describe as based on "minimal evidence," meet the Department's definition of evidence that **Demonstrates a Rationale** (Tier 4). Recommendations from practice guides released in 2010 or earlier are not shown below, but can meet the Department's definition of **Promising Evidence** (Tier 3) if the guide describes the corresponding evidence as "strong" or "moderate."



[Teaching Secondary Students to Write Effectively \(2016\)](#)

3 Recommendations

Tier 1 – Strong evidence



Explicitly teach appropriate writing strategies using a Model-Practice-Reflect instructional cycle.

Tier 4 – Minimal Evidence



Use assessments of student writing to inform instruction and feedback.

Tier 2 – Moderate evidence



Integrate writing and reading to emphasize key writing features.

Improving Mathematical Problem Solving in Grades 4 Through 8 (2018)

5 Recommendations

Tier 1 – Strong evidence



Assist students in monitoring and reflecting on the problem-solving process.



Teach students how to use visual representations.

Tier 2 – Moderate evidence

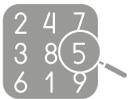


Expose students to multiple problem-solving strategies.



Help students recognize and articulate mathematical concepts and notation.

Tier 4 – Minimal Evidence



Prepare problems and use them in whole-class instruction.

Teaching Strategies for Improving Algebra Knowledge in Middle and High School Students (2019)

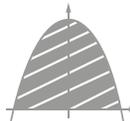
3 Recommendations

Tier 2 – Moderate evidence

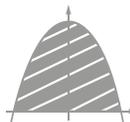


Teach students to intentionally choose from alternative algebraic strategies when solving problems.

Tier 4 – Minimal Evidence



Use solved problems to engage students in analyzing algebraic reasoning and strategies.



Teach students to utilize the structure of algebraic representations.

Preventing Dropout in Secondary Schools (2017)

4 Recommendations

Tier 1 – Strong evidence



Engage students by offering curricula and programs that connect schoolwork with college and career success and that improve students' capacity to manage challenges in and out of school.

Tier 2 – Moderate evidence



Provide intensive, individualized support to students who have fallen off track and face significant challenges to success.



For schools with many at-risk students, create small, personalized communities to facilitate monitoring and support.

Tier 4 – Minimal Evidence



Monitor the progress of all students, and proactively intervene when students show early signs of attendance, behavior, or academic problems.