Evidence-based Interventions: An Overview

Office of Continuous Improvement and Support
Agenda

- Overview of Evidence-based Interventions
- Five Steps for Implementing an Intervention
- Research-based vs. Evidence-based
- The Four ESSA Evidence Levels
Objectives

- By the end of this training, you will be able to...
  - describe the characteristics of an evidence-based intervention.
  - recognize evidence-based language.
  - define the four ESSA evidence levels.
Evidence-based References

(21) EVIDENCE-BASED.—

(A) IN GENERAL.—Except as provided in subparagraph (B), the term “evidence-based”, when used with respect to a State, local educational agency, or school activity, means an activity, strategy, or intervention that—

(i) demonstrates a statistically significant effect on improving student outcomes or other relevant outcomes based on—

(I) strong evidence from at least 1 well-designed and well-implemented experimental study;

(II) moderate evidence from at least 1 well-designed and well-implemented quasi-experimental study; or

(III) promising evidence from at least 1 well-designed and well-implemented correlational study with statistical controls for selection bias; or

(ii)(I) demonstrates a rationale based on high-quality research findings or positive evaluation that such activity, strategy, or intervention is likely to improve student outcomes or other relevant outcomes; and

(II) includes ongoing efforts to examine the effects of such activity, strategy, or intervention.
An Overview: Evidence-based Interventions

- The *Elementary and Secondary Education Act* (ESEA) calls for the use of evidence-based activities, strategies and interventions to accelerate student learning.

- The *Every Student Succeeds Act* (ESSA) establishes a framework with tiers of evidence for consideration and by use of school districts when selecting evidence-based activities, strategies and interventions—especially related to school improvement.

*USED’s Non-Regulatory Guidance: Using Evidence to Strengthen Education Investments*
Must Do & Must Be Evidence-based

Federal:

- All CSI/TSI school improvement plans must include evidence-based interventions aligned with the results of the schools’ needs assessments.
- When using school improvement funds (Section 1003), the top three levels of the evidence-based definition apply.
- Title I, Part A parent and family engagement provisions require evidence-based strategies, but all four levels of evidence apply here.

State:

- CSI turnaround plans must include evidence-based interventions.
- TSI school improvement plan must include evidence-based interventions.
Five Steps for Implementing an Intervention

The following steps, when taken together, promote continuous improvement and can support better outcomes for students:

1. Identify Local Needs
2. Select Relevant, Evidence-based Interventions
3. Plan for Implementation
4. Implement
5. Examine, Reflect and Measure the Results

USED’s Non-Regulatory Guidance: Using Evidence to Strengthen Education Investments
Research-based vs. Evidence-based

Research-based

Evidence-based

founded in the demonstration of statistically significant effect on improving student outcomes
Characteristics of an Evidence-based Activity, Strategy, Intervention

- Supported by a preponderance of scholarly literature
- Has been studied using a study design that measures the impact of the intervention
- Study results are supported by statistical analysis
- Research compares the achievement of a control group to an intervention group
- May be based on long-term changes in archival data
- Is not overridden by more recent or more rigorous research
The Sniff Test
READ 180 works—and we have the research to prove it. In fact, READ 180 is now the world’s most thoroughly researched reading intervention program. Hundreds of studies have shown that it is effective at raising students’ reading achievement. In fact, in a review of the Striving Readers studies method funded by the Institute of Education Sciences, READ 180 was the only one out of 10 reading intervention programs under review to show positive effects on reading achievement.

Check out our research studies yourself - you can sort by state, type of student population, and more.

We also welcome you to browse our comprehensive READ 180 Universal Evidence & Efficacy paper which tells you about the research foundations behind READ 180 and highlights some of the research studies.

**Table 1: Summary of Evidence from Striving Readers-Funded Effectiveness Studies That Met WWC Evidence Standards With or Without Reservations**

<table>
<thead>
<tr>
<th>Overall Effectiveness Rating</th>
<th>Intervention</th>
<th>Summary of the Evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive Effects</td>
<td>READ 180</td>
<td>Three studies found statistically significant positive effects on reading achievement; zero studies found no effects</td>
</tr>
<tr>
<td>Potentially Positive Effects</td>
<td>Xtreme Reading</td>
<td>One study found statistically significant positive effects on reading achievement; one study found no effects</td>
</tr>
<tr>
<td></td>
<td>Learning Strategies Curriculum</td>
<td>One study found statistically significant positive effects on reading achievement; zero studies found no effects</td>
</tr>
</tbody>
</table>
“This intervention is rooted in a combination of Skinner’s operant conditioning theory and Bandura’s self efficacy theory.”

“A 2015 study showed that this intervention had a statistically positive impact on student outcomes when the intervention group was compared to the control group.”
Activity

- Take a moment to practice the *sniff test* using the cards available in the resources download for this webinar.
  - With your team or on your own, review each of the eight cards available in the packet.
  - Determine whether or not each research-based statement is also an evidence-based statement.
  - Take a moment to defend your answer.

- Pause the webinar now.
  - When you are finished, resume playing to see the correct answers.
Activity Answers: Is it Evidence-based?
The Four ESSA Evidence Levels
What are the levels?

ESSA breaks the definition of evidence-based into four distinct levels. Each level reflects the rigor of the study design used to study the intervention.

Why do the levels matter?

Federal funding sources will be tied to different evidence levels. For example, school improvement funds may only be spent on interventions supported by Level I, Level II or Level III evidence.
The Four ESSA Evidence Levels

- **Level IV**
  - Rationale if:
    - logic model informed by evaluation suggests that the intervention proves a student outcome
    - strong evidence or higher, or intervention or is statistically controls for positive effect of some or related
    - significant and other studies overlapping

- **Level III**
  - Evidentiary
    - or without positive effect of or related
    - significant and other studies.
    - nificant

- **Level II**
  - If:
    - ect of edted
    - eden

- **Level I**
  - nificant

Kentucky Department of Education
Thank you for participating!

Non Regulatory Guidance: Using Evidence to Strengthen Educational Investments

U.S. Department of Education

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If you have questions regarding evidence-based interventions, please contact the District 180 branch in the Office of Continuous Improvement and Support at (502) 564-2116.