

**ESSA ACTION GUIDE**

# Selecting Evidence-Based Practices for Low-Performing Schools



## ABOUT THIS ACTION GUIDE SERIES

This series of action guides developed by the American Institutes for Research (AIR) is designed to support and inform education leaders who are implementing the Every Student Succeeds Act (ESSA). ESSA amends the Elementary and Secondary Education Act of 1965 (ESEA).

This edition focuses on the use of **evidence-based practices**, which are instructional practices, strategies, programs, and interventions that have been shown through rigorous evaluation to be effective at improving outcomes. Our goal is to help leaders at the state, district, and school levels explore and select interventions designed to support school improvement.

Other guides in this series will address fairness in school funding, social-emotional learning and the improvement of conditions for learning, continuous improvement cycles, and the leveraging of ESEA Title IV funding for student support and academic enrichment. For more information, please visit: [air.org/ESSAGuides](http://air.org/ESSAGuides).

### AUTHOR INFORMATION

**ALICIA N. GARCIA is an AIR Principal Researcher** who focuses on building capacity in state education agencies and designing, sustaining, and implementing reforms that support student success.

**ELISABETH (LYZZ) DAVIS, PH.D., is an AIR Senior Researcher** who works with practitioners at the state and local level to better understand and apply the ESSA evidence tiers. She designs tools and resources to help states provide ESSA support to their districts.

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Evidence-based practices (EBPs) are informed and supported by rigorous research that demonstrates consistent, positive impacts on student outcomes. Federal policymakers incorporated this concept throughout the Every Student Succeeds Act (ESSA), and education leaders are required to include EBPs in improvement plans for low-performing schools, starting with the 2018–19 school year.

The level of evidence is only one piece of the EBP selection process. Leaders also should select practices that are the right fit for their districts and schools. If they do not consider factors such as cost and local culture, then the practice could be poorly implemented or might not achieve the intended outcomes.

This guide walks state and district leaders through the EBP selection process by offering **three actions** to integrate ESSA requirements and best practices. These actions will help ensure that leaders not only select the most appropriate EBPs for their unique needs but also bridge the gap between research and practice meaningfully and sustainably.

## What Does ESSA Say About Evidence-Based Practices?

According to ESSA, schools receiving federal funding must use EBPs for particular programs described in Titles I, II, and IV of the Elementary and Secondary Education Act of 1965 (ESEA). While requirements for low-performing schools identified for comprehensive support and improvement (CSI), targeted support and improvement (TSI), and additional targeted support and improvement (ATSI) under Title I are the focus of this guide,<sup>1</sup>

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<sup>1</sup> CSI schools are those among the lowest 5% of Title I schools across all required accountability indicators, those that fail to graduate one third or more of their students, and Title I schools with chronically underperforming student groups. TSI schools are those with student groups that underperform based on all accountability indicators. ATSI schools are those with student groups that perform, on their own, as poorly as the bottom 5% CSI schools [ESEA Sec. 1111(d)].

ESSA also prioritizes the use of EBPs to support effective instruction (Title II) and provide wraparound services (Title IV) and various other activities. See Table 1 for a complete description.

Beginning in the 2018–19 school year, CSI, TSI, and ATSI schools must implement at least one EBP that demonstrates a statistically significant effect on student outcomes or other relevant outcomes, and falls into the top three tiers of evidence under ESSA [ESEA Sec. 1111(d)].

The ESSA tiers of evidence are as follows, in descending order [ESEA Sec. 8101(21)(A)]:

- Tier I: Strong evidence from at least one well-designed and well-implemented experimental study
- Tier II: Moderate evidence from at least one well-designed and well-implemented quasi-experimental study
- Tier III: Promising evidence from at least one well-designed and well-implemented correlational study with statistical controls for selection bias
- Tier IV: The practice demonstrates a rationale based on a strong theory of action or logic model, and there is a plan in place to study its impact on outcomes

Federal guidance, which is summarized at the end of this document, details how to meet each of these criteria.

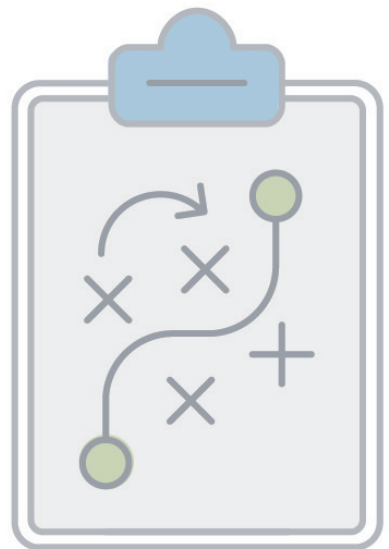


Table 1. Overview of ESSA Requirements for Evidence-Based Practices

Federal Program	Evidence Required
Title I, Section 1003: School Improvement	At least one intervention in each CSI, TSI, and ATSI school must meet evidence requirements of Tier I, II, or III.
Title I, Part A: Basic Programs for Schoolwide and Targeted Assistance	There is no minimum evidence threshold, except that any external providers selected to help schools implement their schoolwide or targeted assistance programs must have expertise in using evidence-based strategies (Tiers I–IV).
Title II, Part A: Supporting Effective Instruction and Literacy for All	Some specific uses of funds (e.g., professional development, induction, and mentoring) require Tier I, II, III, or IV evidence to the extent that the state determines such evidence is reasonably available. For literacy efforts, states must prioritize funds for entities meeting Tiers I, II, or III.
Title IV, Part A: Student Support and Academic Enrichment Grants	Some specific uses of funds require Tier I, II, III, or IV evidence to the extent that the state determines such evidence is reasonably available.
Title IV, Part B: 21st Century Community Learning Centers	Tier I, II, III, or IV evidence is required when deemed appropriate.
Title IV, Part D: Magnet School Assistance	Competitive preference is given for proposals with evidence-based activities (Tier I, II, III, or IV).
Title IV, Part F: Education Innovation and Research	Proposed innovations must meet evidence Tiers I, II, III, or IV.
Title IV, Part F: Community Support for School Success	<p><b>Promise Neighborhoods:</b> The application requirement includes support for EBPs that assist students through transitions (e.g., preK–12 to postsecondary), and competitive preference is given for proposals with evidence-based activities (Tier I, II, or III).</p> <p><b>Full-Service Community Schools:</b> Competitive preference is given for proposals with evidence-based activities (Tier I, II, or III).</p>

# Actions for Education Leaders to Select Evidence-Based Practices

States and districts are required to develop and implement improvement plans for the 2018–19 school year that include EBPs [ESEA Sec. 1111(d)]. Administrators are challenged to identify EBPs at the appropriate evidence tier level that address the specific needs and context of their school and district. The following action steps walk leaders through an EBP selection process that integrates ESSA requirements, as well as local needs and context.

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## **ACTION 1**

### **Review the Data and Practices to Prioritize Improvement Areas**

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## **ACTION 2**

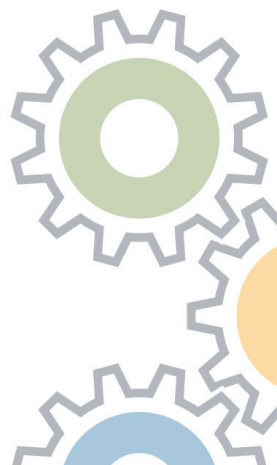
### **Explore Key Resources to Flag EBPs That Meet Evidence Requirements**

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## **ACTION 3**

### **Apply Other Criteria to Identify EBPs That Meet Local Priorities**

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## ACTION 1

### Review the Data and Practices to Prioritize Improvement Areas

To choose the most appropriate EBP for their specific circumstances, leaders first must conduct a variety of needs-assessment activities.

#### What should you do?

- **Complete a data review and interpretation to identify student outcomes that EBPs should address.**

By engaging in a collaborative review of school and district data, leaders and practitioners from all levels can develop meaningful key findings that highlight priority issues. Examining a variety of sources illustrating student outcomes (e.g., attendance, achievement, and behavior data), related system inputs (e.g., programs, materials, and resources), and contextual considerations (e.g., student groups, mobility, and population trends) allows for deeper shared understanding of the issues prioritized for improvement.

- **Conduct a root-cause analysis to identify strategies for improvement.**

Root-cause analysis is the process by which practitioners examine the possible underlying factors behind prioritized areas for improvement. After prioritizing key findings, leaders can use root-cause analysis to identify the various tactics in the overall education strategy, such as adjustments to teacher instruction or supports for improving attendance, that affect the prioritized student outcomes. Identifying these strategies will determine the general topic area for choosing an EBP

- **Create an inventory of current practices and interventions.**

A school or district can use an inventory to determine which current practices address their prioritized outcomes and respective strategies for improvement. Second, an inventory can help leaders identify which practices could be ended or reduced, because it is difficult for a school or district to add a new intervention without removing or scaling back another effort.



## GAP ANALYSIS OF SCHOOL IMPROVEMENT PRACTICES IN ILLINOIS

As part of a comprehensive needs assessment, more than 60 school districts in Illinois conducted an inventory of all instructional and student intervention programs in each district. After completing the inventory, stakeholder groups from each district discussed each program offered in their district. Once an assessment of local needs was complete and overall areas for improvement determined, school improvement leaders examined how inventoried programs matched up with those areas. Leaders then phased out programs that did not align with the areas for improvement or lacked data on efficacy, continued implementing the programs that matched needs, or identified new initiatives that could better meet students' needs.

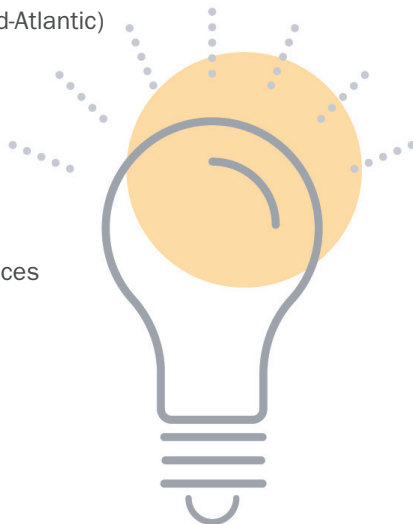
### Key resources

- [Root cause analysis tool](#) (from the Regional Education Laboratory Midwest in Training, Coaching, and Technical Supports Projects)
- SEA/LEA Inventory of Current Practice from [Evidence-based Improvement: A Guide for States to Strengthen Their Frameworks and Supports Aligned to the Evidence Requirements of ESSA](#) (from WestEd)
- [Root Cause Analysis: How Adaptive Leaders Use Root Cause Analysis to Collaboratively Solve Student Achievement Needs](#) (webinar hosted by the Regional Educational Laboratory Mid-Atlantic)

### Supports available from AIR

- AIR student performance data co-interpretation<sup>SM</sup> training
- Root-cause analysis training
- Gap analysis of school improvement practices

To access resources and supports, please visit [air.org/EBPResources](http://air.org/EBPResources).





## ACTION 2

# Explore Key Resources to Flag EBPs That Meet Evidence Requirements

After the gap between current practices and important strategies for action has been defined, the next step is to explore key resources and identify potential strategies that meet the evidence requirements for a given tier. Examining a variety of resources, including online clearinghouses, helps ensure that decisionmakers have identified all possible improvement strategies and evidence tiers associated with potential EBPs.

States and districts also could consider providing a list of vetted EBPs for districts and schools to use based on their scan of research.

### SHOULD YOUR STATE OR DISTRICT DEVELOP A VETTED LIST OF EBPS?

Some states, such as Minnesota and Ohio, have provided districts and schools with a vetted list of EBPs to support them in their strategy selection process. The Ohio Department of Education, with support from REL Midwest at AIR, launched Ohio's Evidence-Based Clearinghouse in late 2018 to help practitioners in all stages of the continuous improvement process. Developing such a list has both benefits and drawbacks.

#### Benefits

- Includes all potential options based on state or district priorities
- Lessens inquiries to state or district on use of a particular practice
- Supports efficient review of school and district plans
- Supports shared understanding of evidence tiers for common approaches
- Can lead to a shared evidence base on common approaches

#### Drawbacks

- Limits schools and district options, particularly if there are more appropriate practices
- Is challenging to develop, create, and maintain
- May duplicate existing clearinghouses

## What should you do?

- **Review existing online clearinghouses for potential practices.**

Online clearinghouses, such as the [What Works Clearinghouse](#), usually include a searchable database of research that is organized by improvement approach and student outcome. Research descriptions include study findings, information to support evidence tier determination, and implementation considerations. The What Works Clearinghouse contains the “Find What Works” database of studies and practice guides that summarize research across classroom and schoolwide practices. More recently, the [Review of Individual Studies](#) database and [Data from Individual Studies](#) pages have added ESSA Tiers I and II distinctions to findings of studies that meet the WWC design standards. These ESSA designations are updated in real time as studies are added to the clearinghouse database.

Numerous organizations conduct comprehensive reviews of research for evidence rigor and other factors. The following resources review research in specific topic areas, and most are searchable for various research design factors that align with ESSA requirements.

- [Top Tier Evidence-Social Programs That Work](#)
- [Blueprints for Healthy Youth Development](#)
- [Campbell Collaboration](#)
- [Crime Solutions](#)
- [ArtsEdSearch](#)
- [RAND Social and Emotional Evidence Review](#)
- [The Community Guide](#)
- [Office of Juvenile Justice and Delinquency Prevention](#)

The inclusion of practices in these clearinghouses does not mean that they meet criteria for evidence Tiers I, II, or III. Before using these clearinghouses, leaders should consider how each aligns with the ESSA tiers of evidence.

- **Conduct your own review of research.**

If clearinghouses do not contain studies that address an approach leaders are considering, then they should evaluate research studies found at sources such as the [Education Resources Information Center](#). This approach has the benefit of actively engaging decisionmakers in the EBP selection process. Because leaders must read and evaluate supporting research, they will gain a richer understanding of potential interventions, which can improve the EBP choice and increase implementation fidelity. Resources such as *Aligning Evidence-Based Clearinghouses With the ESSA Tiers of Evidence* from REL Midwest walk you through the process of determining the evidence tier for outcomes of a stand-alone study.

## Key resources

- [Aligning Evidence-Based Clearinghouses with the ESSA Tiers of Evidence](#) (crosswalk from REL Midwest)
- [How Administrators Can Communicate the Need for Evidence-Based Decision Making](#) (webinar from WWC)
- Intervention Evidence Review from [Evidence-based Improvement: A Guide for States to Strengthen Their Frameworks and Supports Aligned to the Evidence Requirements of ESSA](#) (from WestEd)

## Supports available from AIR

- Training on evidence tiers and selection of EBPs based on local criteria
- Establishing state and local procedures for vetting clearinghouses and evidence tier review
- Establishing protocols for consideration and review of original research
- Research literature reviews supporting potential EBPs
- [Statistics, Website and Training \(SWAT\) project](#) for WWC

To access resources and supports, please visit: [air.org/EBPResources](http://air.org/EBPResources).

## ACTION 3

### Apply Other Criteria to Identify EBPs That Meet Local Priorities

If decisionmakers complete the first two actions in this guide, they can be confident that the chosen EBP is backed by evidence showing a positive impact on their student outcomes of interest. However, districts must examine additional criteria to increase the probability of successful, high-quality implementation. To finalize EBP selection, education leaders should assess their pool of potential strategies based on regional or local priorities.

For example, districts should ensure that they have enough staff to support an intervention. They also must evaluate available resources to determine whether they have enough funding to support an intervention's implementation. Other local factors that might be considered in the final EBP selection phase include the following:

- Infrastructure capacity (for data collection)
- Alignment with regional or local goals
- Fit with student groups and school setting
- Fit with community values
- Ability to replicate and scale
- Ability to measure results formatively and summatively

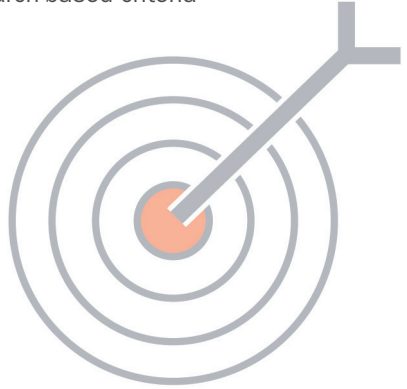
#### Key resources

- [Hexagon tool](#) for evaluating local fit of EBPs (from National Implementation Research Network)
- [Concerns-Based Adoption Model](#) for meeting local priorities during implementation



## Supports available from AIR

- Evaluation of potential EBPs against research-based criteria and/or local criteria
- Training in evaluation of EBPs for local fit, capacity, and other local criteria
- Development of state and district protocols for comprehensive EBP review, including for local fit



To access resources and supports, please visit: [air.org/EBPResources](https://air.org/EBPResources).

## Call to Action

EBPs are not only required for various ESSA programs, but also they are critical to the success of school improvement efforts. Education leaders should ensure that they select EBPs based on a data-driven needs assessment, rigorous evidence, and an appropriate fit with other regional or local criteria. Following these action steps will ensure that leaders invest resources in an intervention that is likely to improve student outcomes and helps bridge the research-to-practice gap.

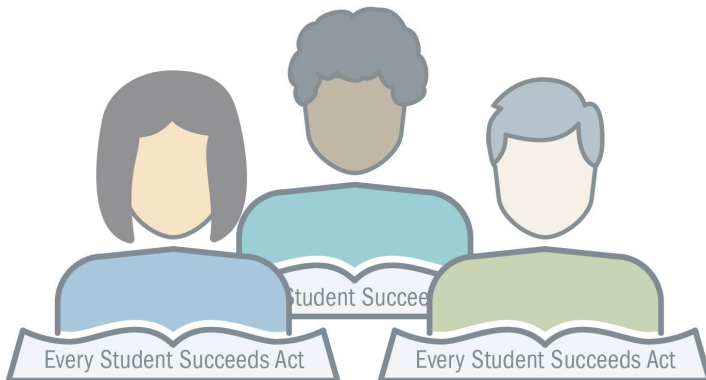
Going forward, we recommend that you:

- Consider the gaps between your current strategy for selecting EBPs and the three actions recommended in this guide,
- Adapt the provided resources to support your strategies; and
- Consider how external providers might help address these gaps.

We hope this guide serves as a meaningful starting point for the use of EBPs in low-performing schools. We look forward to discussing the needs of your state or district further. You may contact [ESSASolutions@air.org](mailto:ESSASolutions@air.org) or Alicia Garcia, Principal Researcher at AIR, at 312.588.7338.

Summary of Federal Guidance on Criteria for Meeting ESSA Evidence Tiers

Tier Criterion	Tier I	Tier II	Tier III	Tier IV
Study design	Experimental study that is well designed and well implemented	Quasi-experimental study that is well designed and well implemented	Correlational study that is well designed and well implemented	Logic model based on high-quality research or evaluation
Statistical significance	Positive, statistically significant impact found on student outcome without any negative findings from well-designed, well-implemented experimental or quasi-experimental studies examining the same interventions and outcomes			Includes plan to evaluate results
Study sample characteristics	Large, multisite study with characteristics of the sample AND setting similar to those in your school or district	Large, multisite study with characteristics of the sample OR the setting similar to those in your school or district	n/a	n/a
<p>Samples and settings can be pooled across multiple studies examining the same practice or program to meet the large, multisite sample criteria.</p>				



## DEFINITIONS SUPPORTING ESSA EVIDENCE TIERS CRITERIA

- Well-designed **experimental studies** randomly assign participants to control and treatment groups and have low participant dropout rates (low attrition).
- Well-designed **quasi-experimental** studies nonrandomly assign participants to control and treatment groups and ensure that the groups are similar on key measures before the intervention began (i.e., baseline equivalence).
- Well-designed **correlational studies** use analytic methods to account for any differences in participant characteristics.
- A **logic model** is a well-specified conceptual framework that identifies key components of the proposed process, product, strategy, or practice and describes the relationships among the key components and outcomes, theoretically and operationally.
- A **large multisite study** has at least 350 study participants and takes place in more than one school or district.
- **Statistical significance** means there is a reasonable chance that there is a relationship between the practice and the student outcome of interest.
- **Student characteristics** may include race, gender, status as an English learner, socioeconomic status, and student with a disability.
- **Setting** describes whether schools are in rural, suburban, or urban districts.

## About the American Institutes for Research

Established in 1946, the American Institutes for Research (AIR) is an independent, nonpartisan, not-for-profit organization that conducts behavioral and social science research on important social issues and delivers technical assistance, both domestically and internationally, in the areas of education, health and workforce productivity.

