

So, What Is Evidence-Based Practice?

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Evidence-Based Overview

The Every Student Succeeds Act of 2015 (Pub. L. No. 114-95) opts for evidence-based strategies and/or interventions to improve teaching, learning, and schools. 20 USC 6311 (g)(2)(H). Throughout the law's text, **ESSA conditions the use of federal monies on SEAs', LEAs', and other eligible entities' employing evidence-based activities.**

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Evidence-Based Defined

20 USC 7801 (21)(A)



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Evidence-based refers to an activity, strategy, or intervention that:
Demonstrates a statistically significant effect on improving student outcomes or other relevant outcomes based on:

1. **strong evidence** from at least one well-designed and well-implemented **experimental study**;
2. **moderate evidence** from at least one well-designed and well-implemented **quasi-experimental study**; or
3. **promising evidence** from at least one well-designed and well-implemented **correlational study** with statistical controls for selection bias
4. Demonstrates a **rationale (logic model)** 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.

Includes ongoing efforts to examine the effects of such activity, strategy, or intervention.

Strong Evidence

Guidance from USDE



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USDE considers an **experimental study** to be "well-designed and well-implemented" if it meets the What Works Clearinghouse evidence standards without reservations or is of the equivalent quality for making causal inferences.

Additionally, USDE notes that to provide strong evidence, a study should:

- Show a statistically significant and positive effect of the intervention on a student or other relevant outcome.
- Not to be overridden by statistically significant and negative evidence on the same intervention in other studies that meet WWC evidence standards with or without reservations or are the equivalent quality for making causal inferences.
- Have a large sample and multisite sample.
- Have a sample that overlaps with the populations and settings proposed to receive the intervention.

Moderate Evidence

Guidance from USDE



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USDE considers a **quasi-experimental study** to be "well-designed and well-implemented" if it meets WWC evidence standards with reservations or is of the equivalent quality for making causal inferences.

Additionally, USDE suggests that to provide moderate evidence, the study should:

- Show a statistically significant and positive effect of the intervention on a student outcome or other relevant outcome.
- Not be overridden statistically significant and negative evidence on the intervention from other findings in studies that meet WWC evidence standards with or without reservations or are the equivalent quality for making causal inferences.
- Have a large sample and a multisite sample.
- Have a sample that overlaps with the populations *or* settings proposed to receive the intervention.

Promising Evidence

Guidance from USDE



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USDE states there must be **at least one well-designed and well-implemented correlational study** with statistical controls for selection bias on the intervention. The study should also use sampling and/or analytic methods to reduce or account for differences between the intervention group and a comparison group.

Additionally, ED advises that to provide promising evidence, the study should:

- Show a statistically significant and positive effect of the intervention on a student outcome or other relevant outcome.
- Not be overridden by statistically significant and negative evidence on that intervention from findings in studies that meet WWC evidence standards with or without reservations or are the equivalent quality for making causal inferences.

Demonstrates a Rationale

To demonstrate a rationale, the intervention should:

- Be **informed by research or an evaluation** that suggests how the intervention is likely to improve relevant outcomes.
- Be reviewed/studied, ideally producing promising evidence or higher, that will happen as part of the intervention or is underway elsewhere to inform stakeholders about the success of the intervention.



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EB Basic Principles

ESSA details that to meet standards of effectiveness, a strategy/intervention/activity carried out with federal funds under ESEA **must be based on evidence-based research that the program or activity will help students meet challenging state academic standards and any local academic standards** 20 USC 7151 (b)(1)(C).

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EB Basic Principles

USDE has explained that ESSA should **spur innovations developed by educators at the local level and evidence-based strategies for high-need students**

Letter to Chief State Sch. Officers, 115 LRP 57571 (OSEP 12/11/15)

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EB Basic Principles

USDE has suggested the use of a **five-step process for implementing evidence-based activities**:

- 1) identify local needs;
- 2) select relevant, evidence-based interventions;
- 3) plan for implementation;
- 4) implement; and
- 5) examine and evaluate effectiveness of interventions

Nonregulatory Guidance: Using Evidence to Strengthen
Education Investments.



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What are Evidence-Based Interventions?

Evidence-based interventions are practices or programs that have evidence to show that they are effective at producing results and improving outcomes when implemented as intended.

Generally, findings about evidence have been produced through published peer-reviewed studies and research.

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Expectations for Successful Evidence-Based Interventions

Evidence-Based Interventions (EBIs) have been shown to have a positive effect on the outcomes of interests (e.g., student literacy, school climate, on-time graduation). Although prior positive findings increase the odds of future success, they don't guarantee it. Evidence-based interventions will be more likely to have a positive effect if you implement them in a **context** and with the **fidelity** consistent with the original research.

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Instructional Understandings About EBIs/EBPs

- Evidence-Based Interventions (EBIs)/Practices (EBPs) are generally content specific and result in positive impacts on academics and behavior.
- Data-based decisions are used to help determine instruction and interventions for all students.
 - student response to interventions
 - fidelity of implementation

Tessie Bailey, American Institutes for Research
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What are Evidence-Based Interventions/Practices?

Are Content Specific

Developmentally Appropriate

Learner Dependent

Supported by Research

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Instructional Understandings About Implementing Evidence- Based Practices

- High-Leverage Practices (HLPs) are a set of strategies used across all content areas that are necessary to support student learning.
- When High-Leverage Practices (HLPs) are coupled with Evidence-Based Interventions/Practices (EBIs/EBPs), they provide a continuum of supports that result in a rapid response to academic and behavioral needs.

(<http://www.teachingworks.org/work-of-teaching/high-leveragepractices>)

High-Leverage Practices (HLPs)

Fundamental to
effective teaching

Cut across content
domains and
grade levels

Used frequently

Supported by
research

<http://www.teachingworks.org/work-of-teaching/high-leverage-practices>

Resources for Evaluating and Selecting Evidence-Based Practices



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NCII
Interventions
Tools Chart

<http://www.intensiveintervention.org/chart/Instructionalintervention-tools>

What Works
Clearinghouse

<http://ies.ed.gov/ncee/wwc/findwhatworks.aspx>

Best Evidence
Encyclopedia

<http://www.bestevidence.org/>

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The *Taxonomy of Intervention Intensity** was developed based on existing research to support educators in evaluating and building intervention intensity.



Dimensions*	Description
Strength	How well the program works for students with intensive intervention needs, expressed in terms of effect sizes. Effect sizes of above .25 indicate an intervention has value in improving outcomes. Effect sizes of 0.35 to 0.40 are moderate; effect sizes of 0.50 or larger are strong (preferred).
Dosage	The number of opportunities a student has to respond and receive corrective feedback. It refers to the size of the instructional group, the number of minutes each session lasts, and the number of sessions provided per week.
Alignment	How well the program (a) addresses the target student's full set of academic skill deficits, (b) does <i>not</i> address skills the target student has already mastered (extraneous skills for that student), and (c) incorporates a meaningful focus on grade-appropriate curricular standards.
Attention to transfer	The extent to which an intervention is designed to help students (a) transfer the skills they learn to other formats and contexts and (b) realize connections between mastered and related skills.
Comprehensiveness	The number of explicit instruction principles the intervention incorporates (e.g., providing explanations in simple, direct language; modeling efficient solution strategies instead of expecting students to discover strategies on their own; providing practice so students use the strategies to generate many correct responses; and incorporating systematic cumulative review).
Behavioral support	The extent to which the program incorporates (a) self-regulation and executive function components and (b) behavioral principles to minimize nonproductive behavior.
Individualization	A validated, data-based process for individualizing intervention, in which the educator systematically adjusts the intervention over time, in response to ongoing progress-monitoring data, to address the student's complex learning needs.



*Fuchs, L.S, Fuchs, D. & Malone, A.S. (2017). The Taxonomy of Intervention Intensity. *TEACHING Exceptional Children*, 50(1), 35–43.

WANT TO LEARN MORE?

Visit us at www.intensiveintervention.org.



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Evidence-Based Interventions: Context Matters

Context Matters: Every intervention is implemented in a particular context and with a particular population. If you implement an intervention that evidence has demonstrated worked, but in a context different from your own (e.g., different enrollment size or community characteristics) or with students different than those you plan to serve (e.g., English language learners, students with disabilities), it is not known whether the intervention will address the challenge you are attempting to tackle. This means that you have to look for the strongest available evidence for your context.

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Evidence-Based Interventions: Fidelity Matters

Fidelity Matters: Evidence on whether an intervention works also specifically relates to how the intervention was implemented. Changing parts of an intervention—for example, adapting materials, conducting trainings on a different frequency, or omitting or adding content— can reduce the relevance of the prior evidence on the intervention.

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Evidence-Based Interventions: Program Effectiveness

“Discovering what works does not solve the problem of program effectiveness. Once models and best practices are identified, practitioners are faced with the challenge of implementing programs properly. A poorly implemented program can lead to failure as easily as a poorly designed one.”

Mihalic, Irwin, Fagan, Ballard, & Elliott, 2004

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EB and Georgia Requirements



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Documentation of the evidence base of interventions must be on file at the LEA and will be reviewed during the cross-functional monitoring process. The GaDOE has provided an optional set of templates that LEAs may use to collect and maintain their evidence-base documentation in our Federal Programs Handbook [HERE](#) (beginning on page 110).

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EB and Georgia Requirements

In reviewing the evidence base of an intervention, the GaDOE federal programs will consistently look to the LEAs' reference and support for the evidence base through the following sources:

- ESSA Definition of Evidence-Based
- Program Specific Non-Regulatory Guidance
- US ED Non-Regulatory Guidance: Strengthening Education Investments

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GRIFFIN-SPALDING COUNTY SCHOOL SYSTEM

EVIDENCE-BASED INTERVENTIONS

SCHOOL INFORMATION:

School Name	
School Year	2018-2019

SCHOOL IMPROVEMENT PLAN SMART GOALS:

Goal Number	Goal Statement

GRIFFIN-SPALDING COUNTY SCHOOL SYSTEM

EVIDENCE-BASED INTERVENTIONS

EVIDENCE LEVELS:

Evidence Level	Description
Strong Evidence – Level 1	<ul style="list-style-type: none"> ● Evidence from at least one well-designed and well-implemented experimental study ● Show statistically significant and favorable effect of the intervention on a student outcome ● Not be overridden by statistically significant and unfavorable evidence on the same outcome ● meet What Works Clearinghouse Evidence Standards with or without reservations (strong evidence) ● causal inference ● Have a large sample and a multi-site sample ● Have a sample that overlaps with the populations AND settings proposed to receive the intervention
Moderate Evidence – Level 2	<ul style="list-style-type: none"> ● Evidence from at least 1 well-designed and well-implemented quasi-experimental study with or without reservations ● Quasi-experimental design study means a study using a design that attempts to approximate random assignment by identifying a comparison group that is similar to the treatment group in important characteristics ● design and implementation, can meet What Works Clearinghouse Evidence Standards with or without reservations
Promising Evidence – Level 3	<ul style="list-style-type: none"> ● Evidence from at least 1 well-designed and well-implemented correlational study with statistical control
Rationale Evidence – Level 4	<ul style="list-style-type: none"> ● A program or practice that does not have evidence qualifying for the top three levels of evidence but has a theoretical rationale for its effectiveness. A logic model or theory of change by research may be provided. ● Logic model will be required for this level

LEVEL 1-3 INITIATIVES:

Level 1-3 initiatives will be listed as strong, moderate or promising on one of the following websites:

- Best Evidence Encyclopedia
- Evidence for ESSA
- What Works Clearinghouse

The study must have evaluated the same population as the population at the school that receives the intervention, strategy or practice identified.

Website Evidence Levels:

- Evidence for ESSA – Strong, Moderate or Promising
- What Works Clearinghouse – Positive or Potentially Positive, Mixed Effects/No Discernible Effects (Do not use) or No Evidence (Do not use)
- Best Evidence Encyclopedia – Strong, Moderate or Limited

Name of Intervention, Strategy or Practice	Website	Evidence Level	Associated Improvement Index (WWC) or ESSA Rating and Average Effect Size (Evidence for ESSA)	Intervention Population and Subject	Quantitative Measurement for Success (Outcomes)	Outcomes	
						Mid-Year Quantitative Results (Completed as part of Annual Review)	Year End Quantitative Results (Completed as part of Annual Review)

LEVEL 4 SCHOOL INITIATIVES (LOGIC MODEL):

All logic model research can be found at the following link: <https://drive.google.com/drive/folders/1v3ql36jXy0MaeBsQp6oM1R-qCjHmH6PC>.

Goals	Activities		Inputs			Outputs		Outcomes	
	SMART Goal No.	Name of Intervention, Strategy or Practice	Current Research with Demonstrated Rationale (Name and link to study)	Intervention Population and Subject	Person Responsible	Implementation Plan of Action	Quantitative Measurement for Success (Outcomes)	When will success be measured? (List month/ date for mid-year and year end)	Mid-Year Quantitative Results (Completed as part of Annual Review)

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Southeast Georgia's EBP Collaborative Work

Georgiana Darsey will
share work on their
Repository of EBP
evidence



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Southeast LEAs' Collaborative Work on EBP

Georgiana Darsey of Bulloch County will share this collaborative work shown below:

Intervention Name	(strong, moderate, promising, or collecting evidence w/ rationale)	Site, Article or Rationale
		https://www.ev...00-elementary
Achieve 3000 - Elementary	Promising	https://www.evidenceforessa.org/programs/reading/elementary/achieve3000-elementary
Achieve 3000 - Secondary (Middle/High)	Strong	https://www.evidenceforessa.org/programs/reading/middlehigh-school/achieve3000-secondary
Arts Education in school	Strong	file:///C:/Users/joyce.davis/Downloads/Fine%20Arts%20Evidence%20Article.pdf
Bookworms Curriculum	Strong	https://research.cehd.udel.edu/2016/03/30/bookworms-curriculum-improves-reading-skills/
BrainPop	Strong	https://cdn-educators.brainpop.com/wp-content/uploads/2014/02/78731_BrainPOP-2008-2009-Effectiveness-Report-082109X.pdf
Class Size Reduction	Strong	https://nepc.colorado.edu/sites/default/files/pb_-_class_size.pdf
Cooperative Learning	Moderate	https://cft.vanderbilt.edu/guides-sub-pages/setting-up-and-facilitating-group-work-using-cooperative-learning-groups-effectively/
Direct Instruction	Strong	https://www.nifdi.org/research/history-of-di-research/over-40-years-of-research
Explicit Vocabulary Instruction (Flocabulary)	Strong	https://www.flocabulary.com/results-state-tests/
Explicit Vocabulary Instruction (Flocabulary)	Strong	https://flocabulary.s3.amazonaws.com/pdfs/flat/the-word-up-project-research-base.pdf
Explicit Vocabulary Instruction (Flocabulary)	Strong	https://flocabulary.s3.amazonaws.com/pdfs/flat/state-test-study-summary.pdf
Fountas & Pinnell LLI-PK-2	Strong	https://www.evidenceforessa.org/programs/reading/elementary/fountas-pinnell-leveled-literacy-intervention-lli
Imagine Learning	Strong	https://www.imaginelearning.com/sites/institutional/files/2017-12/Executive%20Summary%20A%20Study%20of%20the%20Effectiveness%20
iLearn (Math)	Strong	https://www.ilearn.com/main/resources/research-base-for-ilearn-math.html
iReady	Strong	https://www.prnewswire.com/news-releases/new-efficacy-research-demonstrates-curriculum-associates-i-ready-meets-every-student-succ
iStation	Strong	https://www.istation.com/Content/downloads/studies/GAPredictabilityStudy.pdf
IXL	Strong	https://www.ixl.com/research/Impact-of-IXL-in-Beaverton.pdf

Camden County

Denise Cato and Camden County's Evidence-Based Intervention Log

Camden County's Work on EBP



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Denise Cato of Camden County will share her Evidence-Based Intervention Log template below:

Directions: The school team should obtain and review all of the available research on the intervention under study, and determine whether each study provides **strong, moderate, or promising evidence** for the intervention (or **demonstrates a rationale** for adoption), based on ESSA standards and guidance. **Research should be similar in population and subgroup.**

Intervention/Strategy:

Question	In each column, address the question for each study, using the response options listed; make notes in the columns if needed.	Study 1	Study 2	Study 3
Review the Research				
1	List the source of the evidence review (e.g., WWC), or author(s) and year of the study.			
2a	Was this study a well-designed and well-implemented randomized controlled trial (RCT), as defined by ESSA? Response options: Yes, No, or Not enough information If "Yes," go to 2b. If "No" or "Not enough information," go to 3a.			
2b	For this RCT, is there a statistically significant <i>favorable</i> effect of the intervention on the relevant outcome(s)? Response options: Yes or No			
2c	For this RCT, is there a statistically significant and overriding <i>unfavorable</i> effect on the relevant outcome(s)? Response options: Yes or No			
2d	Does this RCT provide <u>STRONG EVIDENCE</u> for the intervention? Response options: Yes or No If the response to row 2b is "Yes" and the response to 2c is "No," mark "Yes" in this row, then proceed to question 6. If the response to row 2b is "No" and the response to row 2c is "Yes," mark "No" in this row, then proceed to question 3a.			

Barrow County

David Beeland will
share Barrow County's
work on EBP

Learning More About EBP

The IRIS Center at Peabody College of Vanderbilt University has developed three modules on EBP:

- **EBP (Part 1): Identifying and Selecting a Practice or Program**
- **EBP (Part 2): Implementing a Practice or Program with Fidelity**
- **EBP (Part 3): Evaluating Learner Outcomes and Fidelity**

Link: https://iris.peabody.vanderbilt.edu/module/ebp_01/



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[gadoe.org](http://ga.gov/gadoe)

Learning More About EBP

- Evidence Based Intervention Network
<http://ebi.missouri.edu>

Headquartered at the University of Missouri, the Evidence Based Intervention Network offers an extensive section on evidence-based practices and programs, including helping tips on EBP selection, as well as resources for school RTI and problem-solving teams, EL resources, and much more.

- PRIME Implementation
<http://www.primeimplementation.com/>

Headquartered at the University of Connecticut Neag School of Education, PRIME Implementation is dedicated to creating resources and programs to help prevent lapses in fidelity of implementation in the classroom. Visitors here will find sections housing information on PRIME projects, resources, and a library for further investigation, among much else.

Questions



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