

Evidence-Based Practices for Program Evaluation

Rich Wilson | Christopher D. Hill

The mission of the Office of Migrant Education is to provide excellent leadership, technical assistance, and financial support to improve the educational opportunities and academic success of migratory children, youth, agricultural workers, fishers, and their families.

OBJECTIVES

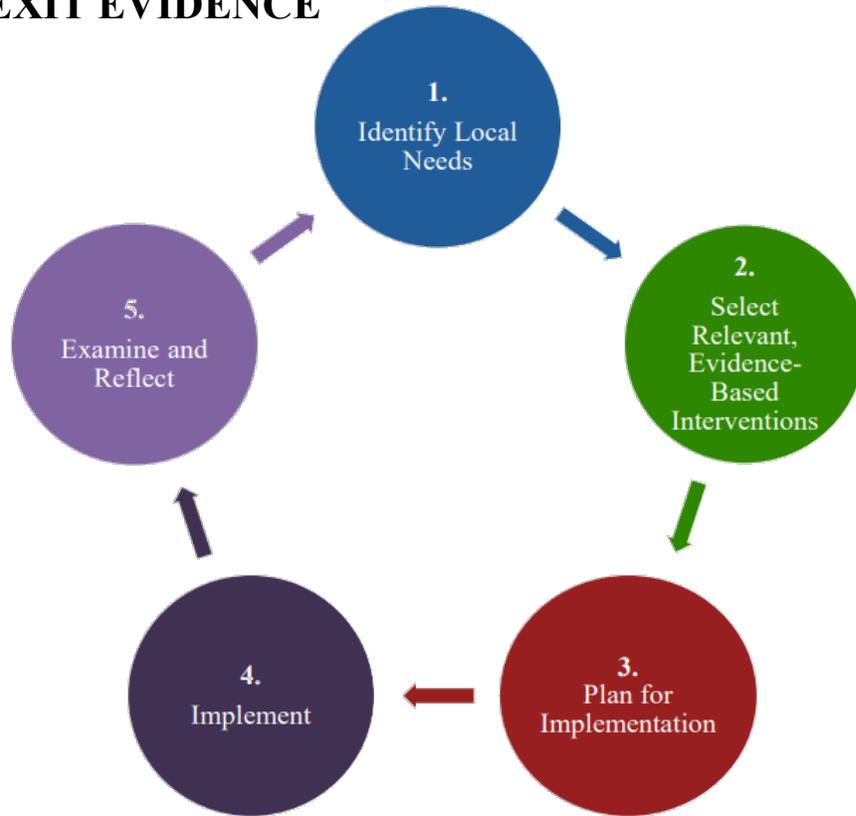
- Why Evidence?
- Review ESSA evidence definitions
- Discuss how to identify, use, and build evidence

WHY EVIDENCE?

- Build evidence base for context of migrant students
 - More effectively leverage your MEP evaluation
- Ensure scarce resources are having the biggest possible impact
- Redirect effort from lower value work to higher value work
 - Improve your service delivery plan
- Improve outcomes for students

USING EVIDENCE

ENTRY VS. EXIT EVIDENCE



■ Entry Evidence

- Used to build your service delivery plan
- How do you know what services to provide and whether they are likely to work?

■ Exit Evidence

- Identifies whether services were effective
- Supports continuous improvement and your next service delivery plan

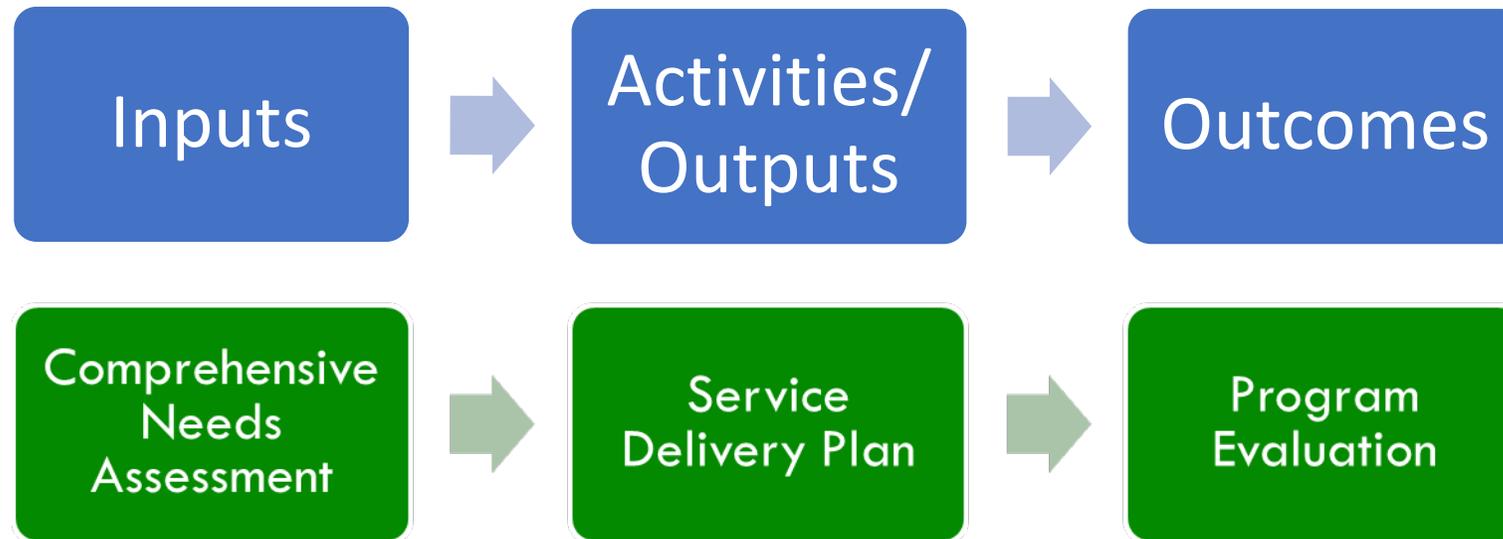
USING EVIDENCE

Logic Models

- Logic model (or theory of action) means a framework that

Entry → Identifies key project components of the service delivery plan

Entry → Describes the theoretical and operational relationships among the key project components and relevant outcomes. 34 C.F.R. 77.1(c)



EVIDENCE DEFINITIONS

ESSA Section 8101(21): Evidence-Based Definition

(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.

(B) DEFINITION FOR SPECIFIC ACTIVITIES FUNDED UNDER THIS ACT. — When used with respect to interventions or improvement activities or strategies funded under section 1003, the term “evidence-based” means a State, local educational agency, or school activity, strategy, or intervention that meets the requirements of subclause (I), (II), or (III) of subparagraph (A)(i).

EVIDENCE DEFINITIONS

Breaking Down ESSA

Evidence-Based means an activity, strategy, or intervention that:

- Strong Evidence from an experimental study
- Moderate Evidence from a quasi-experimental study; or
- Promising Evidence from a correlational study w/ controls for bias
- Demonstrates a Rationale
 - Strategies based on high-quality research findings; and
 - Ongoing effort to evaluate the strategy

EVIDENCE DISCUSSION

- Discuss the following questions with others at your table:
 - How do you currently use evidence and evidence-based strategies in your work?
 - What is the biggest challenge you face utilizing or building evidence in your work?
 - How can ED support your use or creation of evidence?
- Share out with whole group

ED EVIDENCE RESOURCES

- [IES Logic Model Builder](#)
- [Non-Regulatory Guidance: Using Evidence to Strengthen Education Investments](#)
- [EDGAR Definitions](#)
- [EDGAR and Evidence](#)



Focused on Discretionary
Grants

SUPPORT AND RESOURCES FROM ED

OESE Resources

- [Comprehensive Centers](#)
- [Equity Assistance Centers](#)

OTHER ED RESOURCES

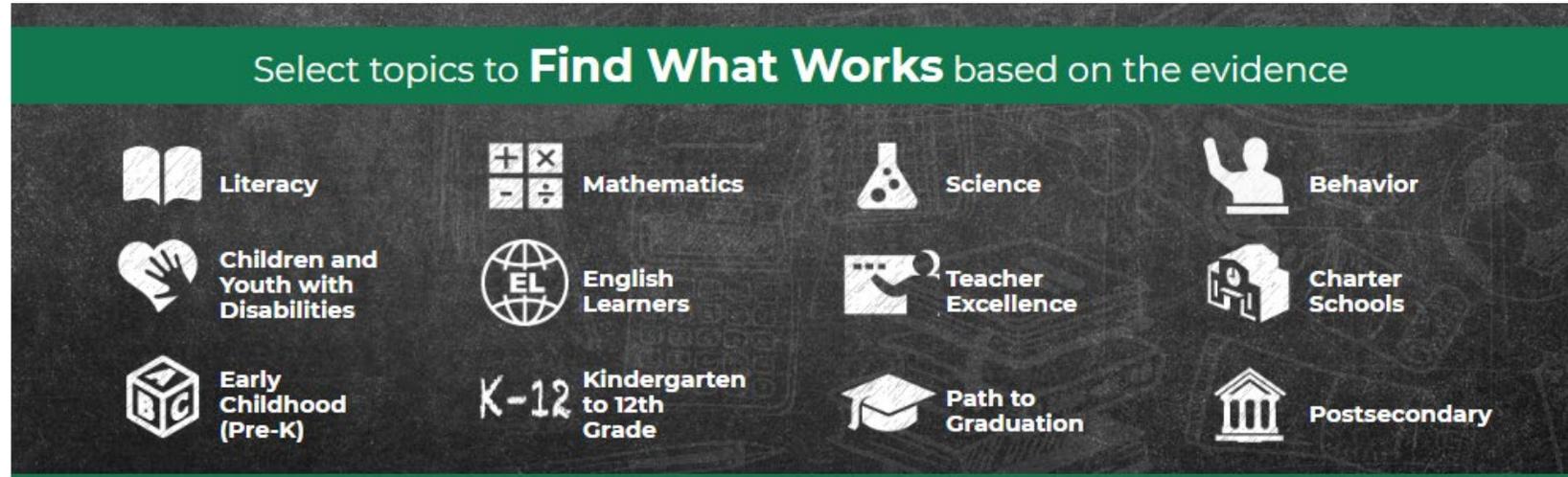


[What Works Clearinghouse](#)

[Regional Educational Laboratories](#)

IDENTIFYING EVIDENCE

What Works Clearinghouse



whatworks.ed.gov

Note: Only for Moderate or Strong Evidence ESSA definitions.

WHAT WORKS CLEARINGHOUSE

Intervention Reports

IES WWC What Works Clearinghouse

Filter by topic

- Literacy
- Mathematics
- Science
- Behavior
- Children and Youth with Disabilities
- English Learners**
- Teacher Excellence
- Charter Schools
- Early Childhood (Pre-K)
- K-12 Kindergarten to 12th Grade
- Path to Graduation
- Postsecondary

32 Results filtered by:

English Learners x

Evidence of effectiveness	Intervention	Grades examined	Compare
	Instructional Conversations and Literature Logs	2-5	<input type="checkbox"/>
	Peer Tutoring and Response Groups	1-6	<input type="checkbox"/>
	Peer-Assisted Learning Strategies	K-6	<input type="checkbox"/>
	Fast ForWord®	K-10	<input type="checkbox"/>
	Reading Mastery	K-5	<input type="checkbox"/>
	Bilingual Cooperative Integrated Reading and Composition (BCIRC)	2-3	<input type="checkbox"/>
	Vocabulary Improvement Program for English Language Learners and Their Classmates (VIP)	5	<input type="checkbox"/>
	Enhanced Proactive Reading	1	<input type="checkbox"/>
	Read Well®	1	<input type="checkbox"/>
	Arthur	K	<input type="checkbox"/>

Source: <https://ies.ed.gov/ncee/wwc/FWW/Results?filters=,EL>

WHAT WORKS CLEARINGHOUSE

Intervention Reports

WWC SUMMARY OF EVIDENCE FOR THIS INTERVENTION

 **Export**  **Print**

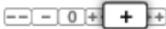
Peer-Assisted Learning Strategies

Peer-Assisted Learning Strategies is a peer-tutoring program for grades K–6 that aims to improve student proficiency in several disciplines. During the 30-35 minute peer-tutoring sessions, students take turns acting as the tutor, coaching and correcting one another as they work through problems. The designation of tutoring pairs and skill assignment is based on teacher judgement of student needs and abilities, and teachers reassign tutoring pairs regularly.

Reviewed Research

Beginning Reading
Adolescent Literacy
English Language Learners
Elementary School Mathematics
Students with a Specific Learning Disability

September 2010
  **EVIDENCE SNAPSHOT**
 **INTERVENTION REPORT (534 KB)**
 **REVIEW PROTOCOL**

Outcome domain 	Effectiveness rating 	Studies meeting standards 	Grades examined 	Students 	Improvement index 
Reading achievement		1 study meets standards	3-6	99	

Connect With the WWC



Source: <https://ies.ed.gov/ncee/wwc/FWW/Results?filters=,EL>

WHAT WORKS CLEARINGHOUSE

Sample Intervention Report

INTERVENTION > EVIDENCE SNAPSHOT

Peer-Assisted Learning Strategies

English Language Learners

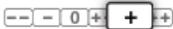
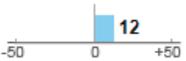
Peer-Assisted Learning Strategies was found to have potentially positive effects on reading achievement for English language learners.

Peer-Assisted Learning Strategies is a peer-tutoring program for grades K–6 that aims to improve student proficiency in several disciplines. During the 30-35 minute peer-tutoring sessions, students take turns acting as the tutor, coaching and correcting one another as they work through problems. The designation of tutoring pairs and skill assignment is based on teacher judgement of student needs and abilities, and teachers reassign tutoring pairs regularly.

Findings

1 STUDIES THAT MET STANDARDS OUT OF 3 ELIGIBLE STUDIES REVIEWED

Outcome Domain	Effectiveness Rating 	Grades	Improvement Index 
----------------	--	--------	---

Reading achievement		3-6	
---------------------	--	-----	---

Last Updated: September 2010

-  Download Intervention Report 534 KB
-  Download Intervention Report Appendices 268 KB



Summary of all Research Settings and Samples that Met Standards

Gender  Male: 21% Female: 79%	English Learners  100%
Delivery Method  Small Group	
Locations  TX South	

WHAT WORKS CLEARINGHOUSE

Searching for Studies

The screenshot shows the homepage of the What Works Clearinghouse. At the top, there is a navigation bar with the IES and WWC logos, the text "What Works Clearinghouse", a "MENU" button, a search bar with a "Go" button, and a search icon. Below the navigation bar is a green banner with the text "Select topics to Find What Works based on the evidence". Underneath the banner is a grid of 12 topic icons: Literacy, Mathematics, Science, Behavior, Children and Youth with Disabilities, English Learners, Teacher Excellence, Charter Schools, Early Childhood (Pre-K), K-12 Kindergarten to 12th Grade, Path to Graduation, and Postsecondary. Below the grid are two main sections: "WELCOME TO THE WHAT WORKS CLEARINGHOUSE" and "HIGHLIGHTS". The "WELCOME" section contains a paragraph about the clearinghouse's mission. The "HIGHLIGHTS" section features a carousel slide titled "New Handbooks" and "Now Available Version 4.1 of WWC Standards and Procedures Handbooks", with a "Learn more" link and a progress indicator. At the bottom, there is a "QUICK LINKS" section with three icons and labels: "INTERVENTION REPORTS", "PRACTICE GUIDES", and "REVIEWS OF INDIVIDUAL STUDIES".

IES WWC What Works Clearinghouse

Search Go

Select topics to **Find What Works** based on the evidence

- Literacy
- Mathematics
- Science
- Behavior
- Children and Youth with Disabilities
- English Learners
- Teacher Excellence
- Charter Schools
- Early Childhood (Pre-K)
- K-12 Kindergarten to 12th Grade
- Path to Graduation
- Postsecondary

WELCOME TO THE WHAT WORKS CLEARINGHOUSE

The What Works Clearinghouse (WWC) reviews the existing research on different *programs, products, practices, and policies* in education. *Our goal* is to provide educators with the information they need to make evidence-based decisions. We focus on the results from *high-quality research* to answer the question "What works in education?" Find more information **about the WWC**.

HIGHLIGHTS

New Handbooks
WWC Standards and Procedures, Version 4.1

Now Available Version 4.1 of WWC Standards and Procedures Handbooks

Learn more about the updates from Version 4.0 to Version 4.1 and browse the new handbooks.

● ○ ○ ○ ○ ○ ○ ○

QUICK LINKS

- INTERVENTION REPORTS
- PRACTICE GUIDES
- REVIEWS OF INDIVIDUAL STUDIES

Source: <https://ies.ed.gov/ncee/wwc/FWW>

WHAT WORKS CLEARINGHOUSE

Searching for Studies

 REVIEWS OF INDIVIDUAL STUDIES

 Searching for WWC's Reviews of Individual Studies

 Introduction to the WWC's Reviews of Individual Studies

Use this search page to find *individual studies* that have been reviewed by the WWC and categorized into ESSA evidence tiers. Select options from the filters or enter author/title information into the search box. The resulting list of studies connects you to more information, including whether the study has been included in a WWC publication that summarizes evidence from more than one study.

All Ratings ▾ All Designs (for studies meeting standards) ▾

All Topics ▾ All ESSA ratings ▾

Select studies with at least one statistically significant positive finding

Migrant Clear Selections

Displaying 1 - 10 of 12 results

Previous **1** 2 Next

Troia, G. A. (2004). Migrant students with limited English proficiency: Can Fast ForWord® Language make a difference in their language skills and academic achievement? Remedial and Special Education, 25(6), 353-368.



Retrieved from: <https://eric.ed.gov/?id=EJ695636>

This study evaluated the efficacy of the computer-assisted intervention program known as Fast ForWord Language? in a sample of **migrant** students in Grades 1 through 6 who were native Spanish speakers. Fast ForWord Language? combines intensive training in multiple receptive English language skills with adaptive acoustic waveform lengthening and amplification to purportedly accelerate the English language learning skills of children who are nonnative English language speakers.

Source: <https://ies.ed.gov/ncee/wwc/ReviewedStudies/#/Keyword:Migrant,OnlyStudiesWithPositiveEffects:false,SetNumber:1>

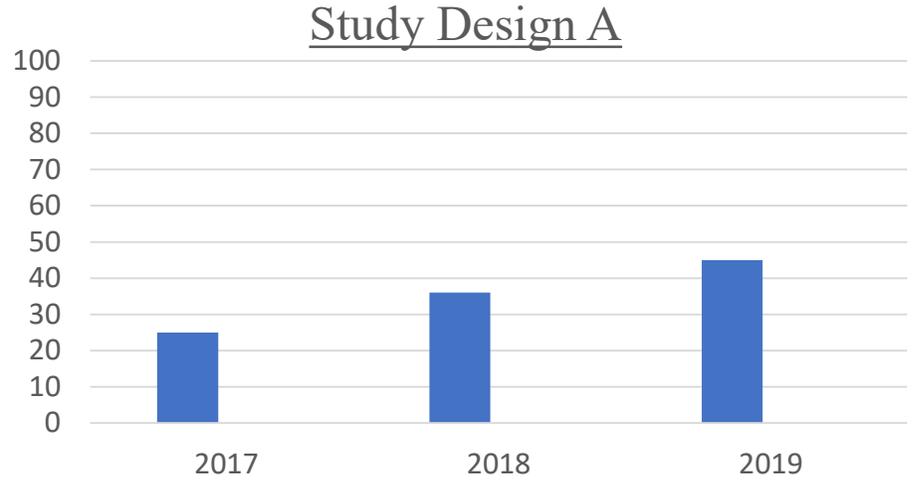
BUILDING THE EVIDENCE BASE

Promising Evidence

- A correlational study looks at the association between receiving an intervention and an outcome of interest
- An intervention can be a process, product, strategy, practice, program, or policy
- Statistical controls for selection bias is how study authors attempt to compare subjects who are similar except for the receipt of the intervention
- Selection bias is “an error in choosing the individuals or groups to take part in a study. Ideally, the subjects in a study should be very similar to one another... If there are important differences, the results of the study may not be valid.”
(National Cancer Institute)

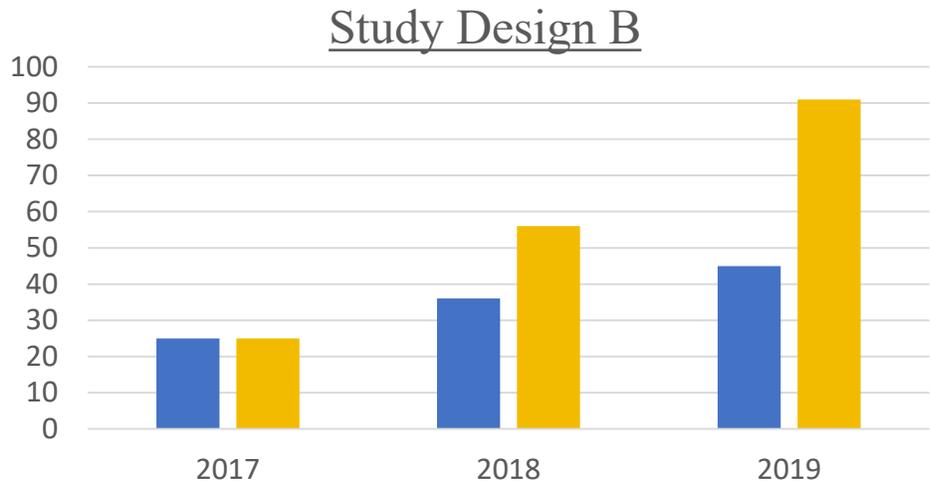
BUILDING THE EVIDENCE BASE

Importance of Comparison Groups



Intervention was first implemented in 2018

- 2017 is baseline year
- 2019 is year of follow-up data collection



- Students Receiving Intervention
- Comparison Group (Equivalent at Baseline)

BUILDING THE EVIDENCE BASE

Evaluation Design Decisions

- Which *key component* of your project will be the *intervention* from your service delivery plan that can be evaluated in an effectiveness study?
- How will we form an equivalent *comparison group* to study the effects of the intervention?
- What *data* do we need to collect on *baseline student characteristics* and *relevant outcomes*?
- What services will be received by students in the comparison group, and do they offer a *service contrast* with the intervention?
- When will *data collection* and *report preparation* occur?

Q&A

Christopher.D.Hill@ed.gov

Richard.Wilson@ed.gov