

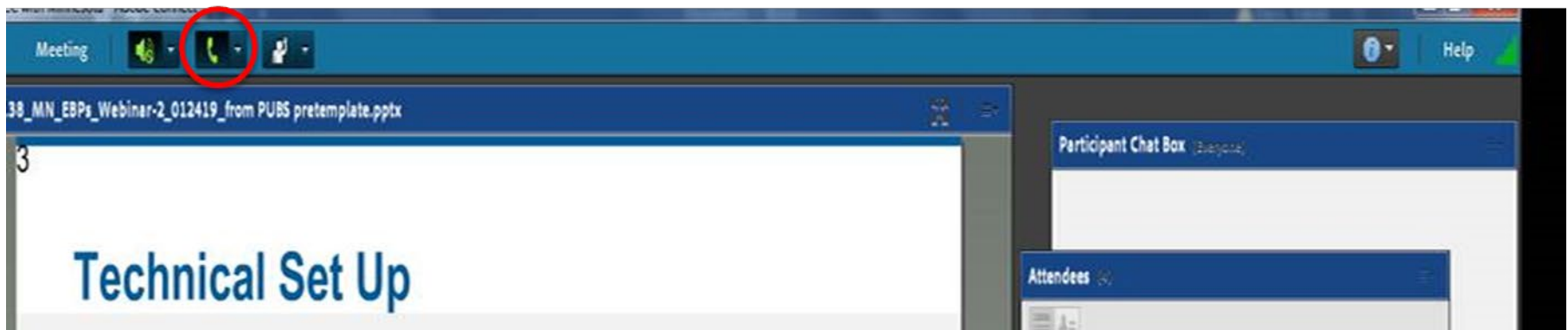
Mastering Online Resources for Identifying Evidence Tiers and Evidence-Based Practices

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Technical Set Up

1. You will be prompted to join the audio conference. **Select the “dial out” feature -- the Adobe Connect platform will call your phone line. Do *not* select “Listen Only.”**
2. Please remember to keep your audio line muted when you are not speaking



Two-Part Series: Selecting Evidence-Based Practices for Low-Performing Schools

- **January 23, 1 p.m. Eastern Time**
 - Webinar 1: Identifying Evidence-Based Practices That Meet Requirements for Low-Performing Schools
- **January 30, 1 p.m. Eastern Time**
 - Webinar 2: Mastering Online Resources for Identifying Evidence Tiers and Evidence-Based Practices

Module 2: Objectives

Part 1

- Understand how to determine ESSA evidence Tiers 1, 2 and 3

Part 2

- In-depth navigation of What Works Clearinghouse (WWC) resources
- Show how other clearinghouses align with ESSA tiers

OTHER OBJECTIVES?













Notes About Symbols Used

- *Italics* are used for criteria that determine evidence tiers.
- Circled numerals in the upper right corner of slides correspond to criteria 1–7.



Evidence Tier Criteria for Evaluating a Study

	Tier Criterion	Tier 1 (greatest rigor)	Tier 2	Tier 3	Tier 4 (least rigor)
1	Research design <i>(minimum rigor)</i>	Experimental study Random assignment of participants to control and treatment	Quasi-experimental Control and treatment groups <u>not random</u> (but purposeful)	Correlational Measures relationship between practice and outcome	Logic model Informed by high-quality research or positive evaluation
2	Group equivalence	Low attrition	Higher attrition okay but then must have baseline equivalence	Statistical controls for selection bias	n/a
3	Statistically significant favorable effect (by outcome)				Includes evaluation plan
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5	Large study sample			n/a	n/a
6	Multisite study sample			n/a	n/a
7	Sample overlap	Students <u>and</u> setting	Students <u>or</u> setting	n/a	n/a

ESSA: At Least One Practice in CSI and TSI Schools Must Meet Evidence Tier 1, 2, or 3

WHAT IS AN “EVIDENCE-BASED” INTERVENTION? (from section 8101(21)(A) of the ESEA)

“...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 one well-designed and well-implemented experimental study;
 - (II) *moderate evidence* from at least one well-designed and well-implemented *quasi-experimental study*; or
 - (III) *promising evidence* from at least one 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.



Tiers 1–3

Sources of Evidence-Based Practices

- Per ESSA, districts and schools must find evidence that addresses the same intervention and outcome(s) that are proposed and that meets the Tier 1, 2, or 3 criteria, from one of three sources:
 - **Online clearinghouses** that compile and evaluate research studies
 - **Research studies** not evaluated in clearinghouses
 - **Single-study reviews** commissioned through the Institute of Education Sciences (IES)
- The intervention may be a **current practice** (if a study is found for it that meets Tiers 1–3) or may be a **practice that is new** to your school/district.

Criteria for ESSA Tiers of Evidence

Evidence Tier Criteria for Evaluating a Study

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Why Are Tier 1 and Tier 2 Important?

- Means better fit with your targeted student population than Tier 3.
- The practice is much more likely to have caused the outcome (versus correlation).

Criteria 1 and 2

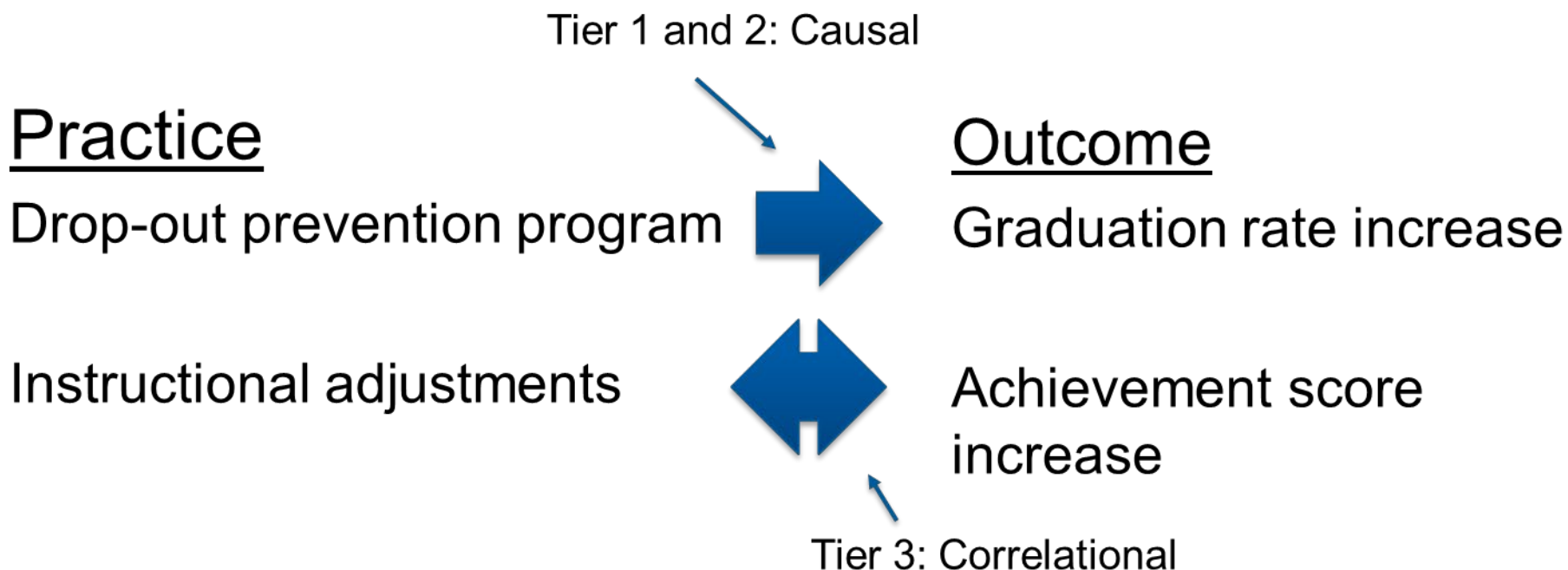
- *Research design*
- *Group equivalence*

Evidence Tier Criteria for Evaluating a Study

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Research Design

Studies in Tiers 1, 2, and 3 all measure the relationship between a practice and an outcome.



Research Design

Tier 1 and Tier 2 build on the minimum requirement by addressing the assignment of study participants to control and treatment groups.

Tier Criterion	Tier 1	Tier 2	Tier 3
Research design (minimum rigor)	Experimental study <ul style="list-style-type: none"> Measures relationship between practice and outcome (causal) Assignment of participants to control and treatment groups Random assignment of participants 	Quasi-experimental study <ul style="list-style-type: none"> Measures relationship between practice and outcome (causal) Assignment of participants to control and treatment groups 	Correlational study <ul style="list-style-type: none"> Measures relationship between practice and outcome

Research Design

Experimental (Tier 1) and quasi-experimental (Tier 2) studies both have purposeful control and treatment groups.



Treatment group



Control group

Research Design

Experimental (Tier 1) and quasi-experimental (Tier 2) studies both have purposeful control and treatment groups.



Treatment group

Receives the intervention, practice, strategy, or program (also known as the intervention group)



Control group

Does not receive the intervention, practice, strategy, or program

Research Design: Experimental (Tier 1)

1



Random assignment of participants to **control** and **treatment group** denotes an experimental study (Tier 1).

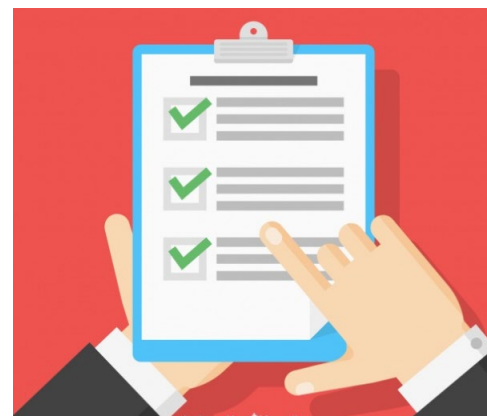
Randomized-controlled trials (RCTs) are the most common form of these experiments.



Research Design: Quasi-Experimental (Tier 2)

1

Nonrandom assignment of participants to **treatment** and **control groups** by the researcher denotes a **quasi-experimental study** (Tier 2).



Research Design: Quasi-Experimental (Tier 2)

1

Nonrandom, purposeful assignment of participants is used in various types of studies. Some examples are:



Time series

Compare results for similar students before and after interventions



Nonequivalent groups

Treatment and control groups created using assignment that is nonrandom



Matching

Uses statistical methods to create treatment and comparison groups (rather than random assignment)

Research Design: Correlational (Tier 3)

1

Outcome

Characteristic	Enrolled in a Minnesota college in fall 2011	
	Odds ratio	95 percent confidence interval
Student characteristic		
Female	1.21***	(1.16, 1.26)
Black	1.25***	(1.15, 1.36)
Hispanic	0.79***	(0.71, 0.89)
Eligible for the federal school lunch program	0.82***	(0.78, 0.87)
Standardized MCA-II math composite score	1.13***	(1.10, 1.17)
Indicator of missing MCA-II math score	0.55***	(0.51, 0.59)
Participated in Advanced Placement	1.06	(0.99, 1.13)
Participated in concurrent enrollment	1.53***	(1.40, 1.68)
Participated in Postsecondary Enrollment Options	1.51***	(1.39, 1.65)
Participated in other/unknown program	1.44***	(1.31, 1.58)
Participated in International Baccalaureate	0.88	(0.65, 1.19)
High school characteristic		
Rural high school	1.31***	(1.19, 1.45)
Enrollment between 579 and 1,599 students	1.85***	(1.66, 2.05)
Enrollment 1,600 students or larger	1.95***	(1.73, 2.19)

Practices

** Significant at $p < .01$; *** significant at $p < .001$.

Source: Analysis (regression) results predicting enrollment in a Minnesota college in fall 2011 (Davis et al., 2017)

Research Design

- Be cautious of:
 - Undocumented results (“My experience has been...”)
 - Typical program evaluation results (not rigorously designed)
 - Qualitative research (not quantitative practice-to-outcome results)
 - Unpublished research or research not published in a peer-reviewed publication

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Group Equivalence: Attrition

Experimental studies must have low participant drop-out, from research start to data analysis, to qualify for Tier 1.

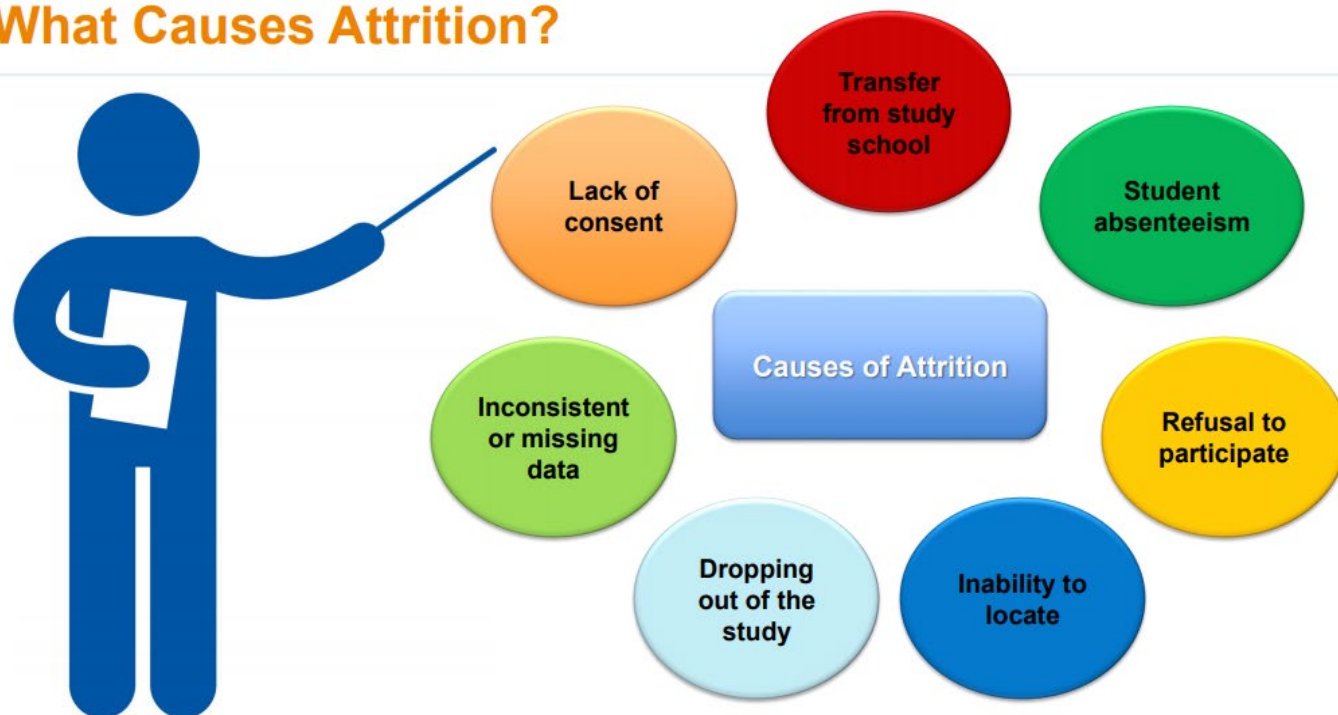
What Causes Attrition?



Group Equivalence: Attrition

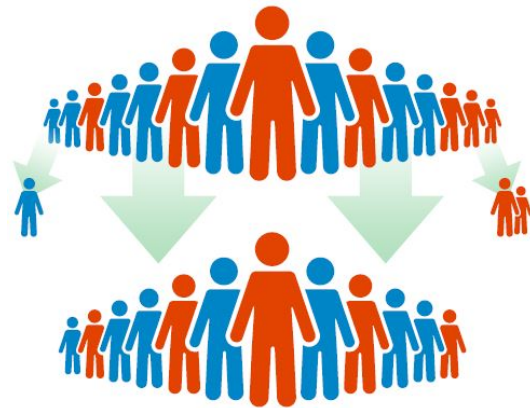
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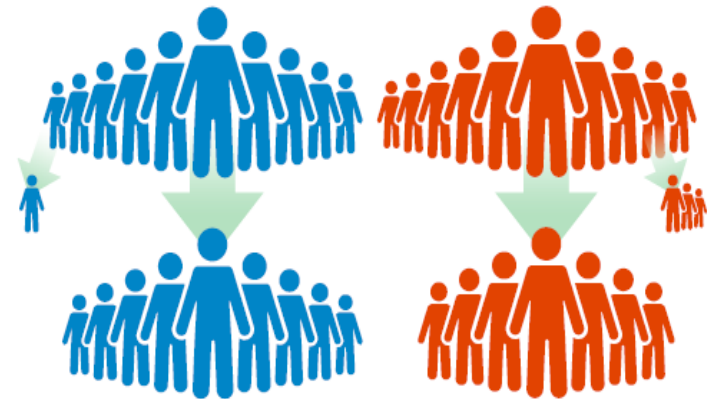
Group Equivalence: Attrition (Participant Drop-Out)

Experimental studies meet criteria #2 if they have **low overall attrition** and **low differential attrition**.



Overall attrition

Percentage of total participants (those assigned to control and those assigned to treatment) that do not have outcome data



Differential attrition

Subtract the attrition percentage for the intervention group from the attrition percentage for the control group

Group equivalence: Baseline Equivalence

Quasi-experimental studies meet criteria #2 for Tier 2 if they have **baseline equivalence**.



The **comparison** and **treatment** groups must be *equivalent* on **key factors** such as race, achievement, at-risk status, class size, and so forth, depending on the type of study.

Group Equivalence: Controls

2

Correlational studies meet criteria #2 if they have *controls* that help ensure the results are accurate, regardless of factors such as the following:



- Race



- Gender

- Age



- Socioeconomic or free or reduced-price lunch status



- Prior achievement

- Disability status



- English learner status



- Migrant status



- School setting (urban, suburban, rural)



- School size

Group Equivalence: Statistical Controls for Bias

Tier 3 studies control for bias using covariates.

		Enrolled in a Minnesota college in fall 2011	
Characteristic		Odds ratio	95 percent confidence interval
Covariates (controls)	Student characteristic		
	Female	1.21***	(1.16, 1.26)
	Black	1.25***	(1.15, 1.36)
	Hispanic	0.79***	(0.71, 0.89)
	Eligible for the federal school lunch program	0.82***	(0.78, 0.87)
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** Significant at $p < .01$; *** significant at $p < .001$.

Source: Analysis (regression) results predicting enrollment in a Minnesota college in fall 2011 (Davis et al., 2017)

Criteria 3 and 4

- *Statistically significant, favorable effect*
- *No unfavorable effects from other Tier 1 or Tier 2 studies*

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Statistically Significant Favorable Effect

- **Statistically significant favorable effect** means a 95% (or higher) likelihood that the relationship between a practice and an outcome is not random.
- **“Not random”** could mean:
 - Predictive, but not causal (i.e., correlates)
 - Causal

Which relationships between practice and outcome meet *statistical significance* criterion for Tiers 1-3?

	Coefficients and Statistical Significance	
	Enrolling in 4-year college	Enrolling in 2-year college
Female	1.06	-.07
Hispanic	-0.51	0.36
Free or reduced-price lunch	-0.09**	0.16*
Took dual/concurrent course	0.29***	-0.24
Took at least one AP course	0.46*	-0.23**

Note: *** p -value < .01; ** p -value < .05; * p -value < .1

Statistically Significant Favorable Effect

- p value = probability that the relationship between intervention and outcome is caused by random factors (i.e., something other than the intervention).
- $1 - p$ value (1 minus the p value) = the likelihood that relationship is not random
- p value of .05 or less is universally considered significant, indicating at least a 95% chance that the intervention–outcome relationship is not random.

Table. Estimated Coefficients from Regressions Predicting Grade 3 ELA Achievement and Reading

	3 rd Grade ELA achievement	3 rd Grade Reading diagnostic
With Reading 180		
English learner	.91*	.71**
Poverty status	.78	.90***
Original Curriculum		
English learner	.83*	.61**
Poverty status	.71	.82***

* $p < .05$. ** $p < .01$. *** $p < .001$.

Asterisks denote p value of .05 (95% probability)

Magnitude of effect is not relevant; only should be positive

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No Statistically Significant Unfavorable Effects From Tier 1 or Tier 2 Studies

- There can be no other Tier 1 or Tier 2 studies of the intervention/outcome that have found statistically significant unfavorable effects on the outcome of interest.
- There are shortcuts for determining in WWC.



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Large Study Sample

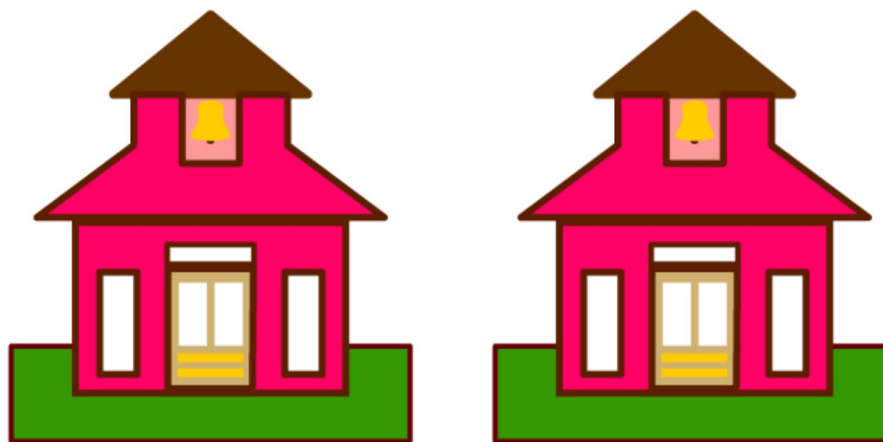
Required to qualify for Tier 1 or 2 (no requirements for Tier 3)



- Must have **sample size (N) of 350** or more
- Sample may be aggregated across studies for the same outcome

Multisite Sample

Required to qualify for Tier 1 or 2 (not for Tier 3)



- Favorable effect must have been demonstrated in two or more schools
- Must have control and treatment groups in two or more schools
- May be aggregated across studies for the same outcomes

Sample Characteristics Overlap With Target Population

- For Tier 1, student characteristics and setting
- For Tier 2, student characteristics or setting



Population



Setting

Study Sample Overlap With Target Population

- For Tier 1, student population and setting
- For Tier 2, student population or setting



Population



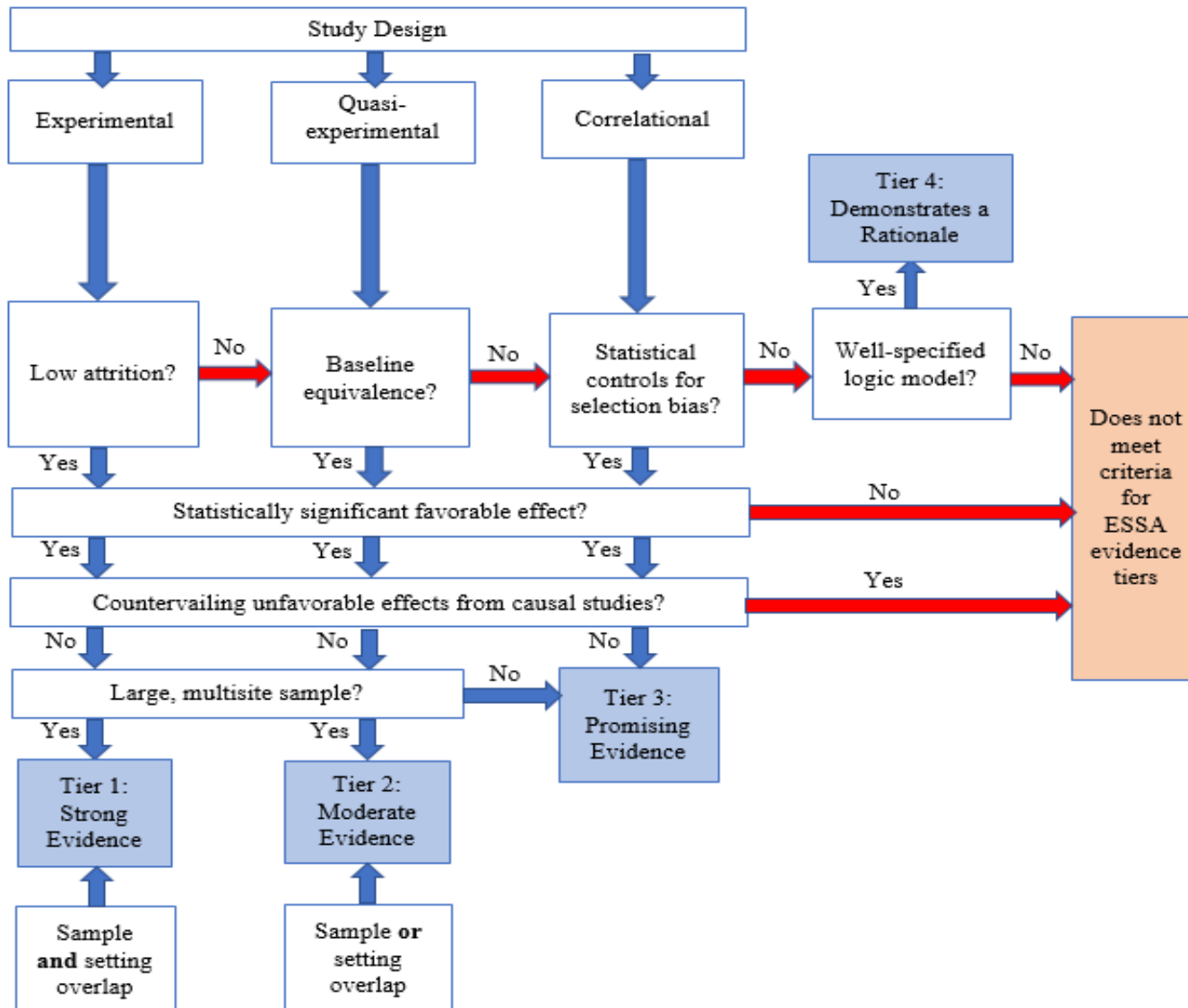
Setting

ESSA Tier 1 and 2 Summary

Tier 1 and Tier 2 studies measure causal relationships, and meet these criteria:

- ① Control and treatment groups that are randomly assigned (Tier 1) or not randomly assigned (Tier 2)
- ② Low attrition (Tier 1) or baseline equivalence (Tier 2)
- ③ Favorable statistically significance effects (95% likelihood of non-random relationship between practice and outcome)
- ④ Not overridden by statistically significant unfavorable effects from Tier 1 or Tier 2 studies (see WWC shortcuts)
- ⑤ A sample size ≥ 350 , and some overlap between student
- ⑥ ⑦ characteristics and/or setting

Determining Evidence Tier



Minnesota Early Indicator and Response System (MEIRS)



Home About ▾ Students and Families ▾ Licensing ▾ Districts, Schools and Educators ▾ Data Center ▾

[MDE](#) > [Districts, Schools and Educators](#) > [Dropout Prevention/At-Risk Students](#) > [Minnesota Early Indicator and Response System \(MEIRS\)](#)

▸ Dropout Prevention/At-Risk Students

▸ Minnesota Early Indicator and Response System (MEIRS)

Contact

Jackie Blagsvedt
mde.meirs@state.mn.us
651-582-8805

Minnesota Early Indicator and Response System (MEIRS)

Early Warning Intervention and Monitoring Systems (EWIMS) are critical to increasing graduation rates for all student groups across Minnesota. In May 2018, the Minnesota Department of Education and the Regional Centers of Excellence updated the Minnesota Early Indicator and Response System (MEIRS) in response to stakeholder feedback and the latest research on EWIMS. The MEIRS 2.0 Guide:

- follows all seven core components of the EWIMS evidence-based practice;
- encourages schools to customize indicators and interventions to address their unique local needs;
- directs school leaders through actions they must complete before MEIRS teams begin to meet;
- includes how to support and refine the system as part of a continuous improvement process.

What's New?

The first-generation MEIRS included a secure report that identified sixth- and eighth-grade students who were statistically at risk of not graduating. To ensure that schools rely on locally available real-time data and actionable indicators (as required by the EWIMS evidence-based practice), the MEIRS secure reports will be sunsetted. School staff with prior access will have continued access to the current MEIRS system and reports through December 31, 2018. Please email mde.meirs@state.mn.us if you have any questions regarding the MEIRS secure reports.

For occasional email updates on MEIRS, please [subscribe to this page](#).

MEIRS Guidance

[MEIRS Roles and Responsibilities](#) - 9/17/18
This document outlines key responsibilities of leaders related to MEIRS.

[Should we adopt Minnesota Early Indicator and Response System \(MEIRS\)?](#) - 9/14/18
This document presents information and guiding questions to support schools considering implementing MEIRS.

[MEIRS Evolution and Crosswalk](#) - 7/9/18
MEIRS Evolution and Crosswalk How has MEIRS changed and how does it align with the EWIMS evidence-based practice?

[MEIRS 2.0 Guide](#) - 7/2/18
The newly updated guide introduces a process for monitoring and responding to student progress toward graduation using locally available real-time data within a continuous improvement cycle.

Source: <https://education.mn.gov/MDE/dse/drop/MEIRS/>

Using Online Resources to Identify EBPs



Evidence Clearinghouses

- [What Works Clearinghouse](#) (Find What Works and Practice Guides)
- [Evidence for ESSA](#)
- [Social Programs That Work](#)
- [Blueprints Programs](#)
- [Campbell Corporation](#)
- [Crime Solutions](#)
- [ArtsEdSearch](#)
- [RAND Social/Emotional Evidence Review](#)
- [ERIC](#)*
- [Google Scholar](#)*

*sources for research studies that are not clearinghouses

Evidence Clearinghouse Guide

Evidence-Based Clearinghouses Guide

Under the Every Student Succeeds Act (ESSA), State educational agencies (SEAs) are required to identify schools in need of Comprehensive Support and Improvement (CSI), Targeted Support and Improvement (TSI), and any additional state-determined categories of schools. The purpose of this guide is to provide SEAs, local educational agencies (LEAs), schools and educators with information to assist in selecting and using evidence-based practices, activities, strategies, and interventions through the use of Evidenced-Based Clearinghouses. This guide can be used to access various Clearinghouse sites with access to links, resources and tools to support the important work around student equity and access to a quality education. |

Clearinghouse	Description	Resources
<p><u>What Works Clearinghouse (WWC)</u></p> <p>https://ies.ed.gov/ncee/wwc</p>	<p><u>The What Works Clearinghouse</u> established by the U.S. Department of Education's Institute of Education Sciences to provide educators, policymakers, and the public with a central, independent, and trusted source of scientific evidence of what works in education.</p> <p>Goal: To provide educators with the information they need to make evidence-based decisions. We focus on the results from <i>high-quality research</i> to answer the question "What works in education?"</p> <p>WWC reviews the existing research on different programs, products, practices, and policies in education. Also provides additional resources and tools on topics such as academics, behavior, student subgroups, dropout prevention and postsecondary readiness.</p>	<ul style="list-style-type: none"> • <u>Review Process</u> What We Do: https://ies.ed.gov/ncee/wwc/WhatWeDo • <u>Topics:</u> https://ies.ed.gov/ncee/wwc Literacy Mathematics Science Behavior Children and Youth with Disabilities English Learners Teacher Excellence Charter Schools Early Childhood (Pre-K) Kindergarten to 12th Grade Path to Graduation Postsecondary • <u>Practice Guides with Recommendations</u> https://ies.ed.gov/ncee/wwc/PracticeGuides • <u>Videos & Reviews of Individual Studies</u>

Alignment Between Clearinghouses and Evidence Tiers

- Currently, none of the clearinghouse designations align precisely with the ESSA tiers.
- Just because a practice is reviewed by a clearinghouse does not mean the practice meets CSI/TSI requirements.
- Some analysis is required when you use the clearinghouse to determine whether tiers are met.
- Take the WWC training and get certified [here](#).

What Works Clearinghouse

Find What Works Database Educator Practice Guides

Find What Works based on the evidence

FIND RESEARCH WITH STUDENTS LIKE YOURS ▶

42 Results filtered by: Path to Graduation x

How to Use FWW Print

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

Evidence of effectiveness	Intervention	Grades examined	Compare
	Dual Enrollment Programs	9-12	<input type="checkbox"/>
	Accelerated Middle Schools	6-8	<input type="checkbox"/>
	Check & Connect	9-12	<input type="checkbox"/>
	ACT/SAT Test Preparation and Coaching Programs	10-12	<input type="checkbox"/>
	Green Dot Public Schools	9-12	<input type="checkbox"/>
	Summer Counseling	12-PS	<input type="checkbox"/>
	Financial Incentives for Teen Parents to Stay in School	11-12	<input type="checkbox"/>
	Career Academies	9-12	<input type="checkbox"/>
	Achievement for Latinos through Academic Success (ALAS)	7-9	<input type="checkbox"/>
	First year experience courses	PS	<input type="checkbox"/>
	High School Redirection	9-12	<input type="checkbox"/>
	Talent Search	11-12	<input type="checkbox"/>

Preventing Dropout in Secondary Schools Practice Guide Summary

Educators' Practice Guide Summary • WHAT WORKS CLEARINGHOUSE™

The four evidence-based recommendations in this WWC practice guide can support educators and administrators in preventing dropout in secondary schools.

Recommendations in this practice guide:

1. Monitor the progress of all students, and proactively intervene when students show early signs of attendance, behavior, or academic problems.
2. Provide intensive, individualized support to students who have fallen off track and face significant challenges to success.
3. 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.
4. For schools with many at-risk students, create small, personalized communities to facilitate monitoring and support.

Introduction

Students who do not complete high school face economic and social challenges throughout their lifetimes. They are more likely to be unemployed,¹ earn lower wages,² have poor health, engage in criminal activity, and require public assistance.³ The *Preventing Dropout in Secondary Schools* practice guide from the What Works Clearinghouse (WWC) aims to address these challenges. Developed by a panel of practitioners and researchers, the guide offers school and district administrators four evidence-based recommendations for helping students stay in school, progress through school, and graduate high school.

This summary introduces the recommendations and supporting evidence described in the full practice guide. Recommendations 1, 2, and 3 complement one another and are most effective when implemented simultaneously in all types of schools, while Recommendation 4 should be implemented primarily in schools with high dropout rates to facilitate implementation of the other three recommendations. For a full description of the recommendations and more practical tips, [download your free copy of the guide](#).

ies NATIONAL CENTER FOR EDUCATION EVALUATION AND RESEARCH ASSISTANCE
INSTITUTE OF EDUCATION SCIENCES

Find What Works

Visit the WWC Website

The screenshot shows the homepage of the IES WWC What Works Clearinghouse. At the top, there is a navigation bar with the IES WWC logo, the text "What Works Clearinghouse", a "MENU" button, and a search bar with a "Go" button. 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, Dropout Prevention, Early Childhood (Pre-K), K-12 Kindergarten to 12th Grade, Path to Graduation, and Postsecondary. Below the grid are two columns: "WELCOME TO THE WHAT WORKS CLEARINGHOUSE" and "HIGHLIGHTS". The "WELCOME" section contains a paragraph about the clearinghouse's mission. The "HIGHLIGHTS" section features a megaphone icon and a call to action: "Calling all certified reviewers! Learn about how reviewers certified on version 3.0 of the WWC group design standards can update their certification to standards version 4.0." Below the highlights is a "QUICK LINKS" section with three buttons: "INTERVENTION REPORTS", "PRACTICE GUIDES", and "REVIEWS OF INDIVIDUAL STUDIES". At the bottom, there is a "Connect With the WWC" section with social media icons for LinkedIn, WhatsApp, Facebook, and Twitter.

IES WWC What Works Clearinghouse

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

- Literacy
- Mathematics
- Science
- Behavior
- Children and Youth with Disabilities
- English Learners
- Teacher Excellence
- Dropout Prevention
- 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

Calling all certified reviewers! Learn about how reviewers certified on version 3.0 of the WWC group design standards can update their certification to standards version 4.0.

QUICK LINKS

- INTERVENTION REPORTS
- PRACTICE GUIDES
- REVIEWS OF INDIVIDUAL STUDIES

Connect With the WWC

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

Evidence Tier Criteria for Evaluating a Study

	Tier Criterion	Tier 1 (greatest rigor)	Tier 2	Tier 3	Tier 4 (least rigor)
1	Research design <i>(minimum rigor)</i>	Experimental study Random assignment of participants to control and treatment	Quasi-experimental Control and treatment groups <u>not random</u> (but purposeful)	Correlational Measures relationship between practice and outcome	Logic model Informed by high-quality research or positive evaluation
2	Group equivalence	Low attrition	Higher attrition okay but then must have baseline equivalence	Statistical controls for selection bias	n/a
3	Statistically significant favorable effect (by outcome)	✓	✓	✓	Includes evaluation plan
4	No significant unfavorable effect from Tier 1 or Tier 2 study (by outcome)	✓	✓	✓	n/a
5	Large study sample	✓	✓	n/a	n/a
6	Multisite study sample	✓	✓	n/a	n/a
7	Sample overlap	Students <u>and</u> setting	Students <u>or</u> setting	n/a	n/a

Find What Works

Clearinghouse tier	Favorable statistical significance and no unfavorable significant impact from other Tier 1 or Tier 2 studies?	Sample/setting overlap	ESSA tier
Meets standards without reservations	Yes	Sample and setting	Tier 1
	Yes	Sample or setting	Tier 2
	Yes	No	Tier 3
	No	--	Not aligned
Meets standards without reservations	Yes	Sample or setting	Tier 2
	Yes	No	Tier 3
	No	--	Not aligned
Does not meet design standards	Yes	--	Tier 3
	No	--	Not aligned

Select a Topic Area That Aligns With Your Outcome of Interest or Practice

The screenshot shows the IES WWC What Works Clearinghouse website. At the top, there is a navigation bar with the IES WWC logo, the text "What Works Clearinghouse", a "MENU" button, and a search bar with a "Go" button. 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 topic icons and labels. The "Literacy" icon, which is a book, is circled in red. Other icons include a calculator for Mathematics, a flask for Science, a person for Behavior, a hand for Children and Youth with Disabilities, a globe for English Learners, a graduation cap for Teacher Excellence, a box for Dropout Prevention, a cube for Early Childhood (Pre-K), "K-12 Kindergarten to 12th Grade", a graduation cap for Path to Graduation, and a building for 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 megaphone icon and a call to action: "Calling all certified reviewers! Learn about how reviewers certified on version 3.0 of the WWC group design standards can update their certification to standards version 4.0." Below these sections is a "QUICK LINKS" section with three buttons: "INTERVENTION REPORTS", "PRACTICE GUIDES", and "REVIEWS OF INDIVIDUAL STUDIES". At the bottom, there is a "Connect With the WWC" section with social media icons for LinkedIn, Facebook, and Twitter.

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

Select Multiple Filters to Narrow Your Search

FIND RESEARCH WITH STUDENTS LIKE YOURS ▶

Filter by topic

- Literacy
- Mathematics
- Science
- Behavior
- Children and Youth with Disabilities
- English Learners
- Teacher Excellence

20 Results filtered by:

Literacy x Children and Youth with Disabilities x

Evidence of effectiveness ⁱ	Intervention ⁱ	Grades examined ⁱ	Compare ⁱ
	Phonological Awareness Training	PK	<input type="checkbox"/>
	Dialogic Reading	PK	<input type="checkbox"/>
	Peer-Assisted Learning Strategies	K-6	<input type="checkbox"/>
	Fast Track: Elementary School	K	<input type="checkbox"/>
	Lindamood Phoneme Sequencing® (LiPS®)	1-4	<input type="checkbox"/>
	Read Naturally®	2-6	<input type="checkbox"/>
	Self-Regulated Strategy Development	2-10	<input type="checkbox"/>
	Repeated Reading	5-12	<input type="checkbox"/>

Source: <https://ies.ed.gov/ncee/wwc/FWW/Results?filters=,Literacy,Children-Youth-with-Disabilities>

Studies With Greater *Statistical Significance* Are Nearer the Top of the Results

FIND RESEARCH WITH STUDENTS LIKE YOURS ▶

How to Use FWW Print

223 Results filtered by:

Literacy x

Filter by topic

- Literacy
- Mathematics
- Science
- Behavior
- Children and Youth

Evidence of effectiveness ⓘ	Intervention ⓘ	Grades examined ⓘ	Compare ⓘ
<input checked="" type="checkbox"/>	Literacy Express	PK	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Phonological Awareness Training	PK	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Reading Recovery®	1	<input type="checkbox"/>
<input checked="" type="checkbox"/>	READ 180®	4-10	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Sound Partners	K-1	<input type="checkbox"/>

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

“Leveled Literacy Intervention”

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

MORE FILTERS ▶

	READ 180®	4-10
	Sound Partners	K-1
	Phonological Awareness Training plus Letter Knowledge Training	PK
	Instructional Conversations and Literature Logs	2-5
	SpellRead	5-6
	Dialogic Reading	PK
	Success for All®	K-4
	DaisyQuest	PK-1
	Earobics®	K-3
	Leveled Literacy Intervention	K-2
	Stepping Stones to Literacy	K
	Peer-Assisted Learning Strategies	K-6

Source: <https://ies.ed.gov/ncee/wwc/Intervention/1287>

Review the Effectiveness Rating by Outcome to Determine Whether:

- *Statistically significant favorable effect, and*
- *No unfavorable effects from other experimental or quasi-experimental (Tier 1 or Tier 2) study on the outcome*

Beginning Reading

September 2017

EVIDENCE SNAPSHOT INTERVENTION REPORT (863 KB) REVIEW PROTOCOL

Outcome domain ⓘ	Effectiveness rating ⓘ	Studies meeting standards ⓘ	Grades examined ⓘ	Students ⓘ	Improvement index ⓘ
Alphabetics	0	1 study meets standards	K-2	422	--
Reading achievement	++	2 studies meet standards	K-2	747	11
Reading fluency	+	1 study meets standards	K-2	281	11

Source: <https://ies.ed.gov/ncee/wwc/Intervention/1287>

See Effectiveness Rating at Outcome Level to Determine Whether:

- *Statistically significant favorable effect, and*
- *No significant unfavorable effect from other experimental or quasi-experimental study (Tier 1 or Tier 2)*

Six possible effectiveness ratings:

--	-	0	+-	+	++
----	---	---	----	---	----

- Negative
- Potentially negative
- 0 No discernable
- +- Mixed



Not eligible for ESSA Tiers 1-3



See Effectiveness Rating at Outcome Level to Determine Whether:

- Statistically significant favorable effect, and
- No significant unfavorable effect from other experimental or quasi-experimental study (Tier 1 or Tier 2)

Six possible effectiveness ratings:

--	-	0	+ -	+	++
----	---	---	-----	---	----

+ Potentially positive
 ++ Positive



Eligible for ESSA Tiers 1-3



Evidence Tier Criteria for Evaluating a Study

	Tier Criterion	Tier 1 (greatest rigor)	Tier 2	Tier 3	Tier 4 (least rigor)
1	Research design <i>(minimum rigor)</i>	Experimental study Random assignment of participants to control and treatment	Quasi-experimental Control and treatment groups <u>not random</u> (but purposeful)	Correlational Measures relationship between practice and outcome	Logic model Informed by high-quality research or positive evaluation
2	Group equivalence	Low attrition	Higher attrition okay but then must have baseline equivalence	Statistical controls for selection bias	n/a
3	Statistically significant favorable effect (by outcome)	✓	✓	✓	Includes evaluation plan
4	No significant unfavorable effect from Tier 1 or Tier 2 study (by outcome)	✓	✓	✓	n/a
5	Large study sample	✓	✓	n/a	n/a
6	Multisite study sample	✓	✓	n/a	n/a
7	Sample overlap	Students <u>and</u> setting	Students <u>or</u> setting	n/a	n/a

Select a Specific Study to Determine:

- *Research design*
- *Group equivalence*

Beginning Reading

September 2017

EVIDENCE SNAPSHOT INTERVENTION REPORT (863 KB) REVIEW PROTOCOL

Outcome domain ⓘ	Effectiveness rating ⓘ	Studies meeting standards ⓘ	Grades examined ⓘ	Students ⓘ	Improvement index ⓘ
Alphabetics	0	1 study meets standards	K-2	422	--
Reading achievement		2 studies meet standards	K-2	747	11
		Ransford-Kaldon, C., Flynt, E. S., Ross, C. L., Franceschini, L., Zoblotsky, T., Huang, Y., & Gallagher, B. (2010)	K-2	427	14
		Ransford-Kaldon, C., Ross, C., Lee, C., Sutton-Flynt, E., Franceschini, L., & Zoblotsky, T. (2013)	K-2	320	7
Reading fluency	+	1 study meets standards	K-2	281	11

Source: <https://ies.ed.gov/ncee/wwc/Intervention/1287>

Meets WWC Standards Without Reservations

Signifies criteria #1 and #2 meet Tier 1 requirements

RANDOMIZED CONTROLLED TRIAL EXAMINING 320 STUDENTS, GRADES K-2

Review Details

Findings

Sample Characteristics

Study Details

Reviewed: September 2017

For:

 **Leveled Literacy Intervention Intervention Report - Beginning Reading**

Using:

 **Beginning Reading Review Protocol 3.0**

 **Review Standards 3.0**

Rating:

Meets WWC standards without reservations because it is a randomized controlled trial with low attrition.

This review may not reflect the full body of research evidence for this intervention. Please see the **WWC summary of evidence for Leveled Literacy Intervention.**



MEETS WWC
STANDARDS
WITHOUT
RESERVATIONS



AT LEAST ONE
STATISTICALLY
SIGNIFICANT
POSITIVE FINDING

Source: <https://ies.ed.gov/ncee/wwc/Study/85470>


Meets WWC Standards With Reservations

Signifies criteria #1 and #2 meet Tier 2 requirements



Review Details | Findings | Sample Characteristics | Study Details | Additional Sources

Reviewed: January 2018

For:



- 

Using:

- 
- 

Rating:

Meets WWC standards with reservations because it uses a quasi-experimental design in which the analytic intervention and comparison groups satisfy the baseline equivalence requirement.



Source: <https://ies.ed.gov/ncee/wwc/Study/85470>


No “Standards Met”: Tier 3

Even though this is a quasi-experimental study, it is only eligible for Tier 3, because it does not meet criterion #2.

QUASI-EXPERIMENTAL DESIGN EXAMINING 66 STUDENTS, GRADES K-4

Select a WWC Review ⓘ Reading Recovery® Intervention Report - Beginning Reading, 7/2013 ▾

Review Details



Reviewed: July 2013

For:

 Reading Recovery® Intervention Report - Beginning Reading

Using:

 Beginning Reading Review Protocol 2.1

 Review Standards 2.1

Rating:

Ineligible for review because it does not use a sample within the age or grade range specified in the protocol.

This review may not reflect the full body of research evidence for this intervention. Please see the [WWC summary of evidence for Reading Recovery®](#).

Evidence Tier Criteria for Evaluating a Study

	Tier Criterion	Tier 1 (greatest rigor)	Tier 2	Tier 3	Tier 4 (least rigor)
1	Research design <i>(minimum rigor)</i>	Experimental study Random assignment of participants to control and treatment	Quasi-experimental Control and treatment groups <u>not random</u> (but <u>purposeful</u>)	Correlational Measures relationship between practice and outcome	Logic model Informed by high-quality research or positive evaluation
2	Group equivalence	Low attrition	Higher attrition okay but then must have baseline equivalence	Statistical controls for selection bias	n/a
3	Statistically significant favorable effect (by outcome)	✓	✓	✓	Includes evaluation plan
4	No significant unfavorable effect from Tier 1 or Tier 2 study (by outcome)	✓	✓	✓	n/a
5	Large study sample	✓	✓	n/a	n/a
6	Multisite study sample	✓	✓	n/a	n/a
7	Sample overlap	Students <u>and</u> setting	Students <u>or</u> setting	n/a	n/a

Sample Size

Tier 1 and Tier 2: Aggregate sample size across studies must be **at least 350 students**.

Beginning Reading

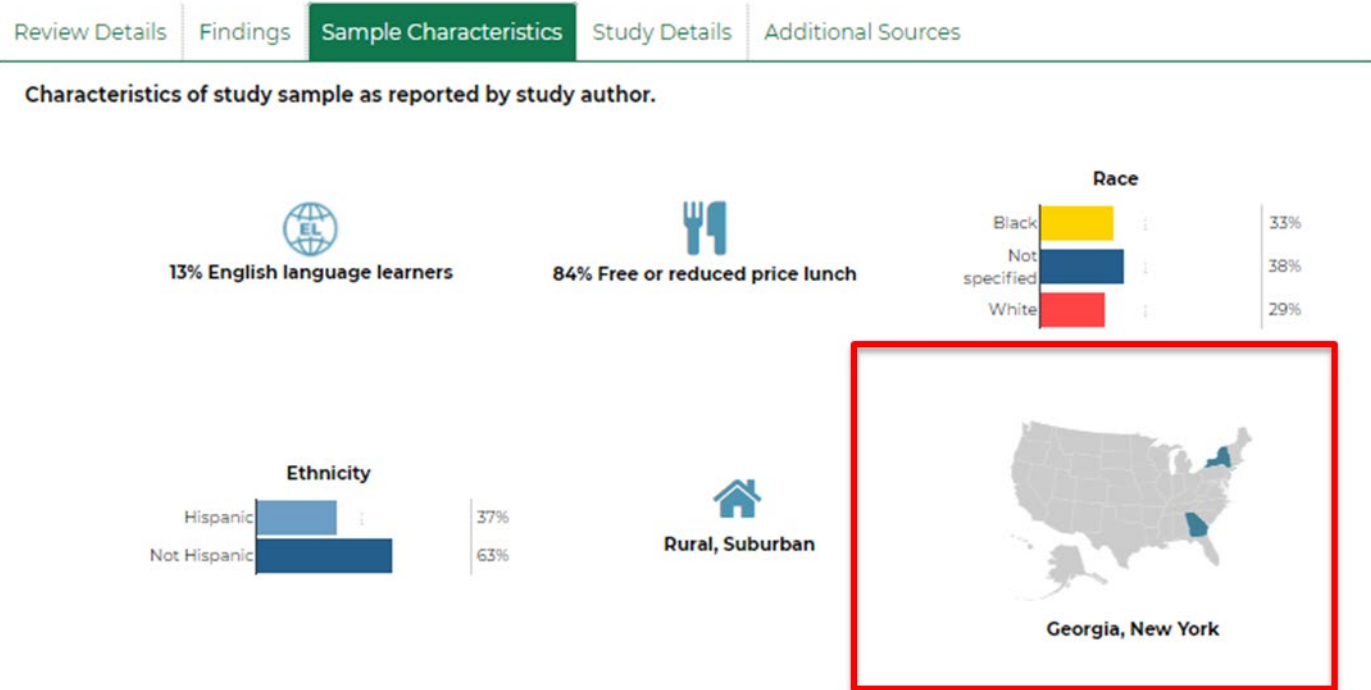
September 2017

EVIDENCE SNAPSHOT INTERVENTION REPORT (863 KB) REVIEW PROTOCOL

Outcome domain ⓘ	Effectiveness rating ⓘ	Studies meeting standards ⓘ	Grades examined ⓘ	Students ⓘ	Improvement index ⓘ
Alphabetics	0	1 study meets standards	K-2	422	--
Reading achievement	++	2 studies meet standards	K-2	747	11
Reading fluency	+	1 study meets standards	K-2	281	11

Multisite Study:

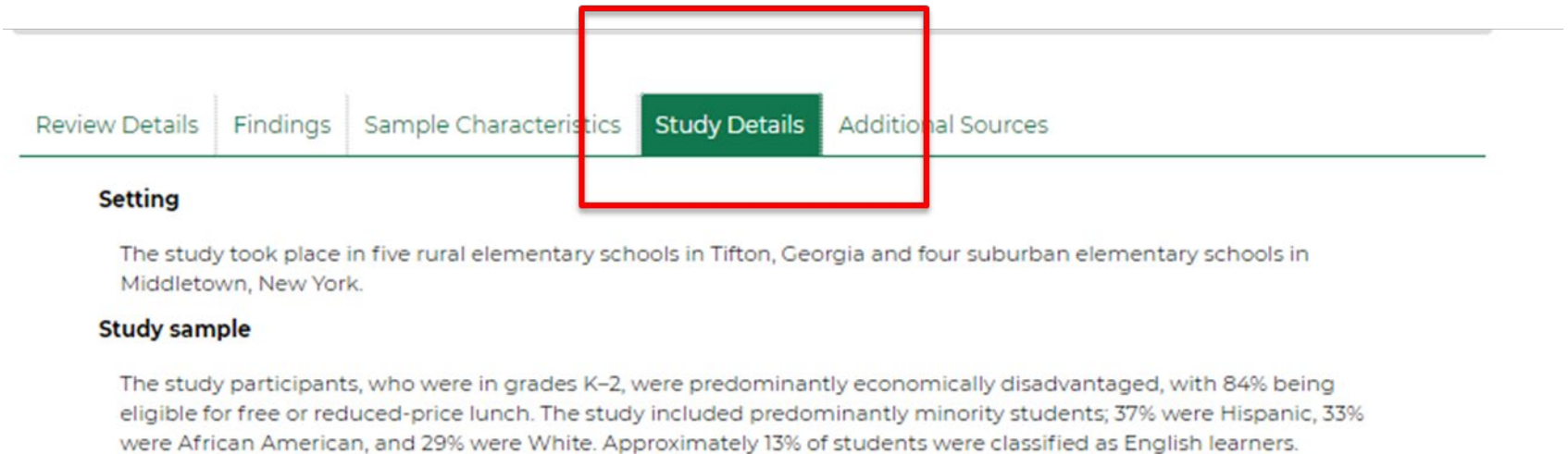
- Required for Tier 1 and Tier 2
- At least two schools



Source: <https://ies.ed.gov/ncee/wwc/Study/78712>

Multisite Study:

- See “Study Details” for more explicit information



The image shows a navigation bar with five tabs: "Review Details", "Findings", "Sample Characteristics", "Study Details", and "Additional Sources". The "Study Details" tab is highlighted in green and is enclosed in a red rectangular box. Below the navigation bar, the page content is organized into sections. The first section is titled "Setting" and contains the text: "The study took place in five rural elementary schools in Tifton, Georgia and four suburban elementary schools in Middletown, New York." The second section is titled "Study sample" and contains the text: "The study participants, who were in grades K-2, were predominantly economically disadvantaged, with 84% being eligible for free or reduced-price lunch. The study included predominantly minority students; 37% were Hispanic, 33% were African American, and 29% were White. Approximately 13% of students were classified as English learners."

Review Details | Findings | Sample Characteristics | **Study Details** | Additional Sources

Setting

The study took place in five rural elementary schools in Tifton, Georgia and four suburban elementary schools in Middletown, New York.

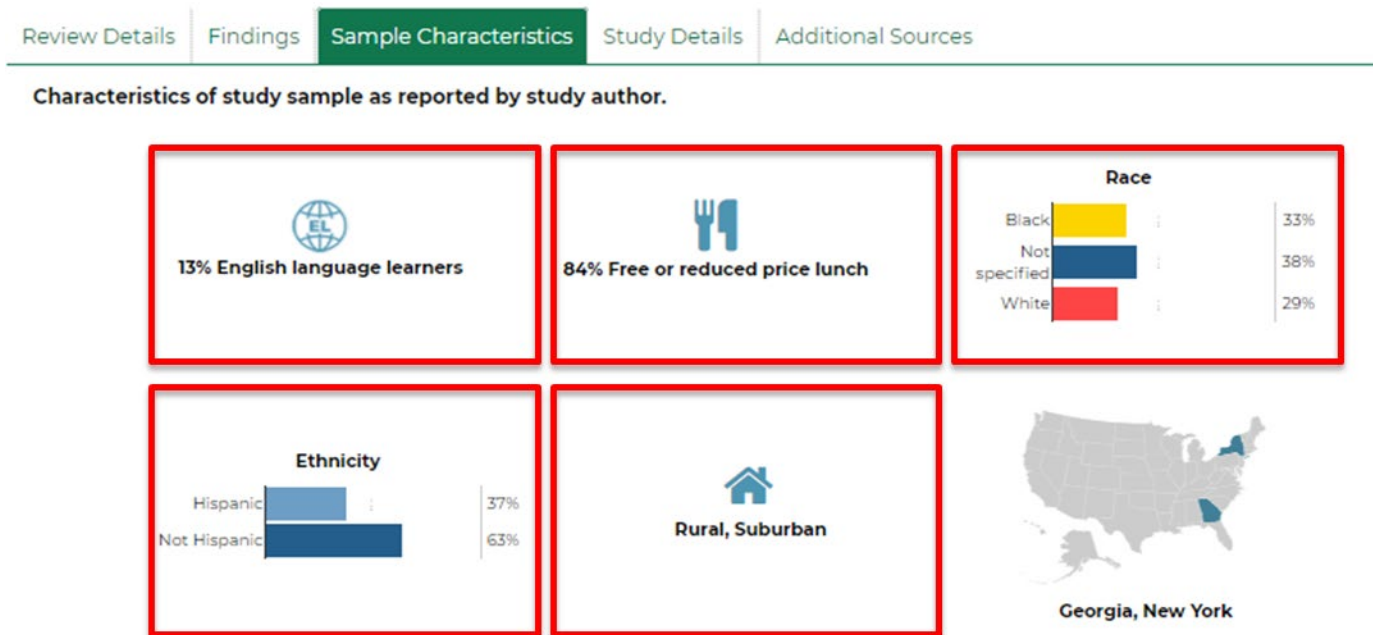
Study sample

The study participants, who were in grades K-2, were predominantly economically disadvantaged, with 84% being eligible for free or reduced-price lunch. The study included predominantly minority students; 37% were Hispanic, 33% were African American, and 29% were White. Approximately 13% of students were classified as English learners.

Source: <https://ies.ed.gov/ncee/wwc/Study/78712>

Sample Overlap

- Tier 1: student population and setting
- Tier 2: student population or setting



Source: <https://ies.ed.gov/ncee/wwc/Study/78712>

See “Intervention Report” for Additional Contextual Information

Reviewed Research

Beginning Reading					
September 2017					
		EVIDENCE SNAPSHOT	INTERVENTION REPORT (863 KB)	REVIEW PROTOCOL	
Outcome domain	Effectiveness rating	Studies meeting standards	Grades examined	Students	Improvement index
Alphabetics	0	1 study meets standards	K-2	422	--
Reading achievement	++	2 studies meet standards	K-2	747	11
Reading fluency	+	1 study meets standards	K-2	281	11

Source: <https://ies.ed.gov/ncee/wwc/Study/78712>

Intervention Reports include contextual information

- Program information, including implementation and cost
- All studies reviewed and summary of their findings
- Sample characteristics

The screenshot displays the cover and first few pages of the 'What Works Clearinghouse™ WWC Intervention Report' for 'Adolescent Literacy'. The report is titled 'READ 180®' and was updated in November 2016. It is published by the U.S. Department of Education and the Institute of Education Sciences. The report includes a 'Report Contents' table and sections for 'Program Description', 'Research', and 'Effectiveness'.

What Works Clearinghouse™ U.S. DEPARTMENT OF EDUCATION

WWC Intervention Report
A summary of findings from a systematic review of the evidence

ies INSTITUTE OF EDUCATION SCIENCES

Adolescent Literacy Updated November 2016

READ 180®

Program Description¹

READ 180® is a reading program designed for struggling readers who are reading 2 or more years below grade level. It provides blended learning instruction (i.e., combining digital media with traditional classroom instruction), student assessment, and teacher professional development. READ 180® is delivered in 45- to 90-minute sessions that include whole-group instruction, three small-group rotations, and whole-class wrap-up. Small-group rotations include individualized instruction using an adaptive computer application, small-group instruction with a teacher, and independent reading. READ 180® is designed for students in elementary through high school. This review of READ 180® focuses on students in grades 4–12.

Research²

The What Works Clearinghouse (WWC) identified nine studies of READ 180® that both fall within the scope of the Adolescent Literacy topic area and meet WWC group design standards. Three studies meet WWC group design standards without reservations, and six studies meet WWC group design standards with reservations. Together, these studies included 8,755 adolescent readers in more than 66 schools in 15 school districts and 10 states.

The WWC considers the extent of evidence for READ 180® on the reading achievement of adolescent readers to be medium to large for four outcomes—comprehension, general literacy achievement, reading fluency, and alphabets. (See the Effectiveness Summary on p. 7 for more details of effectiveness by domain.)

Effectiveness

READ 180® was found to have positive effects on comprehension and general literacy achievement, potentially positive effects on reading fluency, and no discernible effects on alphabets for adolescent readers.

Report Contents	
Overview	p. 1
Program Information	p. 2
Research Summary	p. 4
Effectiveness Summary	p. 7
References	p. 11
Research Details for Each Study	p. 22
Outcome Measures for Each Domain	p. 39
Findings Included in the Rating for Each Outcome Domain	p. 41
Supplemental Findings for Each Outcome Domain	p. 47
Endnotes	p. 54
Rating Criteria	p. 56
Glossary of Terms	p. 57

This intervention report presents findings from a systematic review of READ 180® conducted using the WWC Procedures and Standards Handbook, version 3.0, and the Adolescent Literacy review protocol, version 3.0.

Source: https://ies.ed.gov/ncee/wwc/Docs/InterventionReports/wwc_read180_112916.pdf

Educator Practice Guides

Educator Practice Guides

ESSA Tier	Practice Guide Rating	Overlap	Review Handbook Version
Strong (Tier 1)	Strong	Sample <u>and</u> setting	Version 2.1, 3.0 or 4.0 (September 2011 or later)
Moderate (Tier 2)	Strong or Moderate	Sample <u>or</u> setting	Version 2.1, 3.0 or 4.0 (September 2011 or later)
Promising (Tier 3)	Strong or Moderate	--	--

WWC Practice Guides

See main landing page for *handbook versions*.

PRACTICE GUIDES

A practice guide is a publication that presents recommendations for educators to address challenges in their classrooms and schools. They are based on reviews of research, the experiences of practitioners, and the expert opinions of a panel of nationally recognized experts.

To search by Topic or Keyword, use the [Practice Guide Search](#).

Instructional Tips for Teaching Elementary School Students to Be Effective Writers

Evidence-based tips based on recommendations from the WWC practice guide.



All of the WWC Practice Guides are listed below in chronological order, by date of release.



Improving Mathematical Problem Solving in Grades 4 Through 8

Released: October 2018*
Revised



Preventing Dropout in Secondary Schools

Released: September 2017



Strategies for Postsecondary Students in Developmental Education—A Practice Guide for College and University Administrators, Advisors, and Faculty

Released: November 2016



Teaching Secondary Students to Write Effectively

Released: November 2016



Foundational Skills to Support Reading for Understanding in Kindergarten Through 3rd Grade

Released: July 2016* Revised



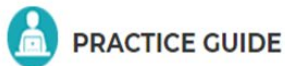
Teaching Strategies for Improving Algebra Knowledge in Middle and High School Students

Released: April 2015

(see [WWC Practice Guides](#))

WWC Practice Guides

See practice landing page for *evidence ratings*.



Preventing Dropout in Secondary Schools



Released: September 2017

PDF (4.4 MB)

Recommendations

Details

Panel

This practice guide provides school educators and administrators with four evidence-based recommendations for reducing dropout rates in middle and high schools and improving high school graduation rates. Each recommendation provides specific, actionable strategies; examples of how to implement the recommended practices in schools; advice on how to overcome potential obstacles; and a description of the supporting evidence.

<p>1 Monitor the progress of all students, and proactively intervene when students show early signs of attendance, behavior, or academic problems.</p> <p> MINIMAL EVIDENCE</p> <p>▼ Show More</p>	<p>2 Provide intensive, individualized support to students who have fallen off track and face significant challenges to success.</p> <p> MODERATE EVIDENCE</p> <p>▼ Show More</p>	<p>3 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.</p> <p> STRONG EVIDENCE</p> <p>▼ Show More</p>	<p>4 For schools with many at-risk students, create small, personalized communities to facilitate monitoring and support.</p> <p> MODERATE EVIDENCE</p> <p>▼ Show More</p>
---	--	--	---

Each Recommendation Includes the Action Steps That Received the Evidence Rating

Recommendation 3



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.

Steps to carry out the recommendation

1. Directly connect schoolwork to students' options after high school.
2. Provide curricula and programs that help students build supportive relationships and teach students how to manage challenges.
3. Regularly assess student engagement to identify areas for improvement, and target interventions to students who are not meaningfully engaged.

WWC Practice Guides

See Appendix D for information on *sample*, *setting* and outcomes.

Appendix D

Table D.4. Studies providing evidence for Recommendation 3

Study and design	Participants and targeted grade range	Setting	Intervention condition as implemented in the study	Comparison condition as implemented in the study	Outcome domain and effect size
		Meets WWC	Group Design Standards Without Reservations		
Berger et al. (2013)^a <i>Randomized controlled trial</i>	2,458 high school students	10 <i>Early College High Schools</i> in 5 states (urban areas, mid-sized cities, and small towns)	Students attended <i>Early College High Schools</i> , which partnered with higher-education institutions and offered curricula that allowed students to complete high school and obtain college credits simultaneously. The schools focused on college readiness and preparation, as well as personalized and comprehensive supports to students. <i>Early College High Schools</i> are small, autonomous schools that serve grades 9–12 or 9–13 (4 or 5 years). Eight of the 10 schools were located on college campuses.	Students participated in regular classes and activities at traditional high schools.	Graduating school = 0.22 ^{ab}
Dynarski et al. (1998) (Albuquerque Middle School Leadership Program) <i>Randomized controlled trial</i>	290 8th-grade students	4 middle schools in Albuquerque, New Mexico	Students participated in the Albuquerque Middle School leadership program, a weekly workshop designed to build student self-esteem, academic skills, and/or leadership skills.	Students participated in regular classes and activities.	Staying in school (cohorts 1 and 2) = -0.33 ^c
Dynarski et al. (1998) (Boston)	212 high school students	3 alternative high schools in Boston,	Students attended alternative high schools that provided a competency-based curriculum and enhanced social services, including career	Students participated in regular classes and	Staying in school (cohort 1,

Other Clearinghouses

Four other clearinghouses have been mapped to the ESSA tier requirements:

- Social Programs That Work
- Blueprints for Health Youth Development
- Crime Solutions
- National Registry of EBPs & Programs (SAMHSA)

Social Programs That Work

Research topics focus on physical/mental health, early childhood, violence & drug abuse prevention

Clearinghouse Rating	Large sample?	ESSA Tier
Top tier	Yes	Tier 1
	No	Tier 3
Near top tier	--	Tier 3
Suggestive tier	--	Does not align

Source: <https://evidencebasedprograms.org>

Social Programs That Work

SOCIAL
PROGRAMS
THAT WORK

SOCIAL PROGRAMS REVIEWED

RELATED RESOURCES

ABOUT THIS SITE

Home | Policy Areas

K-12 Education

Career Academies

Small learning communities in low-income high schools, offering academic and career/technical courses as well as workplace opportunities

UPDATED: Nov 20, 2017 | **TOP TIER**

Randomized controlled trial shows a sizable positive impact on earnings of participants eight years after their scheduled high school graduation.

[Read More](#)

KIPP Charter Schools

A nonprofit network of 209 college-preparatory, public charter schools that serve a predominantly low-income, minority population of students from pre-K through high school.

UPDATED: May 07, 2018 | **TOP TIER**

Randomized controlled trials show sizable, statistically-significant effects on reading and math achievement in elementary and middle school two to three years after random assignment.

[Read More](#)

TOP TIER



Programs shown in well-conducted RCTs, carried out in typical community settings, to produce sizable, sustained effects on important outcomes. Top Tier evidence includes a requirement for replication – specifically, the demonstration of such effects in two or more RCTs conducted in different implementation sites, or, alternatively, in one large multi-site RCT. Such evidence provides confidence that the program would produce important effects if implemented faithfully in settings and populations similar to those in the original studies.

Source: <https://evidencebasedprograms.org>

Social Programs That Work

See “evaluation methods” and “full evidence summary” for sample size.

Career Academies

EVIDENCE RATING: **TOP TIER**

HIGHLIGHTS

- **PROGRAM:**
Small learning communities in low-income high schools, combining academic and technical/ career curricula, and offering workplace opportunities through partnership with local employers.
- **EVALUATION METHODS:**
A large, multi-site randomized controlled trial (RCT).
- **KEY FINDINGS:**
11% increase in average annual earnings (\$2,555 per year in 2017 dollars), sustained over the eight years after scheduled high school graduation. The effect was concentrated among men (who experienced a 17% earnings increase), and was not statistically significant for women.
- **OTHER:**
Strong evidence of effectiveness applies to the Career Academy model evaluated in this trial (as opposed to other types of Career Academies).

TO SEE OUR FULL EVIDENCE SUMMARY:

[DOWNLOAD PDF](#)

Source: <https://evidencebasedprograms.org>

Social Programs That Work

Sample size described in full evidence summary

SOCIAL
PROGRAMS
THAT WORK

Overview of the Study Design: Large, multi-site randomized controlled trial of Career Academies in nine urban U.S. school districts, with follow-up 11-12 years after random assignment.

The trial evaluated nine Career Academies in high schools located in or near large urban school districts across the United States. These Academies had each implemented and sustained the core features of the Academy model for at least two years. They represented a variety of the career themes that Academies typically offer (e.g., technical, service-oriented, or business-related).

The study randomly assigned 1,764 8th and 9th grade students who had applied to one of these Academies and met the eligibility requirements to (i) a group that was invited to participate in the Academy (“Career Academy group”); or (ii) a control group that remained in the regular high school curriculum. 58% of those assigned to the Career Academy group enrolled in the Academy and remained in the program through the end of their 12th grade year.

Source: <https://evidencebasedprograms.org>

Blueprints for Healthy Youth Development

Research topics focus on bullying, delinquency, substance abuse, health, violence prevention

Clearinghouse tier	Research design	Large sample and multisite?	ESSA tier
Model + program	--	Yes	Tier 1
	--	No or not available	Tier 3
Model programs	--	Yes	Tier 1
	--	No or not available	Tier 3
Promising program	Experimental	Yes	Tier 1
	Quasi-experimental	Yes	Tier 2
	--	No or not available	Tier 3
Effective outcome	Experimental	Yes	Tier 1
	Quasi-experimental	Yes	Tier 2
	--	No or not available	Tier 3
No effects	--	--	Not aligned

Source: <https://www.blueprintsprograms.org/>

Blueprints






ABOUT US ASSESS NEEDS BLUEPRINTS CRITERIA VIEW ALL PROGRAMS PROGRAM SEARCH NOMINATE PROGRAM RESOURCES

WE HELP CHILDREN SUCCEED

OUR YOUTH PROGRAMS HELP CHILDREN REACH THEIR FULL POTENTIAL

[VIEW ALL PROGRAMS >>](#)

Blueprints Programs - POSITIVE YOUTH DEVELOPMENT

<p>BLUEPRINTS PROGRAMS WHO WE ARE</p>  <p>BLUEPRINTS FOR HEALTHY YOUTH DEVELOPMENT helps you easily identify evidence-based programs that help young people reach their full potential. Get ahead of serious challenges that influence children's success with programs that have the highest standards for promoting prosocial behavior, academic success, emotional well-being, physical health and positive relationships. More about evidence-based programs here.</p>	<p>EVIDENCE-BASED PROGRAMS REVIEWED BY BLUEPRINTS PREVENT:</p>  <ul style="list-style-type: none">BULLYING IN SCHOOLSYOUTH VIOLENCETEEN SUBSTANCE ABUSEANTISOCIAL, AGGRESSIVE BEHAVIORCHILDHOOD OBESITYSCHOOL FAILUREDELINQUENCYYOUTH DEPRESSION/ANXIETY	<p>LEARN MORE ABOUT BLUEPRINTS VIEW VIDEOS</p>  <div><p>WHY USE BLUEPRINTS</p></div> <div><p>HOW BLUEPRINTS HELPS</p></div>
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We review and rate programs that promote positive youth development.
Find a program that matches your needs with the tools below or [VIEW ALL PROGRAMS »](#)

<p>SEARCH ALL CRITERIA STEP BY STEP</p> <p>This approach walks you through our PROGRAM SELECTOR to view all criteria IN 4 EASY STEPS.</p> <p>START >></p>	<p>SEARCH ALL CRITERIA AT ONCE</p> <p>This approach allows you to view all criteria of our PROGRAM SELECTOR AT ONCE.</p> <p>START >></p>	<p>SEARCH BY KEYWORD</p> <p>USE TERMS AND PHRASES to search our database.</p> <p><input type="text" value="Enter Keyword..."/> >></p> <p>Optional: Narrow search to a specific category:</p> <p><input type="text"/></p>
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Source: <https://www.blueprintsprograms.org/>

Blueprints

Blueprints
FOR HEALTHY YOUTH DEVELOPMENT

ABOUT US | ASSESS NEEDS | BLUEPRINTS CRITERIA | VIEW ALL PROGRAMS | PROGRAM SEARCH | NOMINATE PROGRAM | RESOURCES

I was born 8lbs, 4 oz.

PROGRAM SELECTOR
To revise your search, select or deselect the choices below.

PROGRAM OUTCOMES

- PROBLEM BEHAVIOR
- EDUCATION
- EMOTIONAL WELL-BEING
- PHYSICAL HEALTH
- POSITIVE RELATIONSHIPS

TARGET POPULATION

- AGE
 - Infant (0-2)
 - Early Childhood (3-4) - Preschool
 - Late Childhood (5-11) - K/Elementary
 - Early Adolescence (12-14) - Middle School
 - Late Adolescence (15-18) - High School
 - Early Adulthood (19-22)
 - Adult
- GENDER
- RACE/ETHNICITY

PROGRAM SPECIFICS

- PROGRAM TYPE
- PROGRAM SETTING
 - Adult Corrections
 - Community (e.g., religious, recreation)

SEARCH RESULTS

You may refine your search to the left by using our **Program Selector**. The more categories selected from the interactive search, the more specific the results of the program search will be and the fewer programs identified.

Please take a moment to take our brief survey so we can continue to improve upon your experience. Your feedback is appreciated! [Survey >>](#)

14 PROGRAMS MATCHED YOUR SEARCH.

YOU SEARCHED ON THE FOLLOWING CRITERIA: Infant (0-2), Early Childhood (3-4) - Preschool, Late Childhood (5-11) - K/Elementary, Early Adolescence (12-14) - Middle School, Late Adolescence (15-18) - High School, School

Risk and Protective Factors: Risk Factors: Low school commitment and attachment

COMPARE Select the checkboxes on the left below for programs you wish to compare, then click the "Compare" button.

To sort the list, click on the underlined Program or Rating column headings.

PROGRAM ▶	RATING ▲	BENEFITS AND COSTS	IMPACT
MULTISYSTEMIC THERAPY® (MST®) <input type="checkbox"/> PROGRAM INFORMATION <input type="checkbox"/> TARGET POPULATION <input type="checkbox"/> FUNDING STRATEGIES	Model Plus	<input type="checkbox"/> BENEFITS MINUS COSTS	Close Relationships with Parents, Conduct Problems, Delinquency and Criminal Behavior, Externalizing, Illicit Drug Use, Internalizing, Mental Health - Other, Positive Social/Prosocial Behavior, Prosocial with Peers, Violence
POSITIVE ACTION <input type="checkbox"/> PROGRAM INFORMATION <input type="checkbox"/> TARGET POPULATION <input type="checkbox"/> FUNDING STRATEGIES	Model	<input type="checkbox"/> BENEFITS MINUS COSTS	Academic Performance, Alcohol, Anxiety, Bullying, Delinquency and Criminal Behavior, Depression, Emotional Regulation, Illicit Drug Use, Positive Social/Prosocial Behavior, Sexual Risk Behaviors,
COPING POWER <input checked="" type="checkbox"/> PROGRAM INFORMATION <input type="checkbox"/> TARGET POPULATION <input type="checkbox"/> FUNDING STRATEGIES	Promising	<input type="checkbox"/> BENEFITS MINUS COSTS	Academic Performance, Alcohol, Antisocial-aggressive Behavior, Delinquency and Criminal Behavior, Illicit Drug Use

Source: <https://www.blueprintsprograms.org/>

Blueprints

COPING POWER

Blueprints Program Rating: Promising

A 16-month preventive group intervention for at-risk children in late elementary to early middle school years that includes a parent and child focus to prevent substance abuse and reduce aggressive attitudes and behaviors and, in a universal version of the program, among all school children.



FACT SHEET

PROGRAM COSTS

FUNDING STRATEGIES

DETAILED EVALUATION ABSTRACT

VIDEO

BRIEF DESCRIPTION OF THE PROGRAM

Coping Power for parents and their at-risk children consists of two components (Parent Focus and Child Focus) designed to impact four variables that have been identified as predicting substance abuse (lack of social competence, poor self-regulation and self-control, poor bonding with school, and poor caregiver involvement with child). The program's Child component emphasizes problem-solving and conflict management techniques, coping mechanisms, positive social supports, and social skill development. The Parent component teaches parents skills to manage stress, identify disruptive child behaviors, effectively discipline and reward their children, establish effective communication structures, and manage child behavior outside the home. Coping Power is a 16-month program delivered during the 5th and 6th grade school years. Children attend 22 group sessions in 5th grade and 12 group sessions in 6th grade. Groups are led by a school-family program specialist and a guidance counselor. Children also receive half hour individual sessions once every two months. Parents attend 11 group sessions during their children's 5th grade year and 5 sessions during the 6th grade year.

+ RISK AND PROTECTIVE FACTORS

+ TRAINING AND TECHNICAL ASSISTANCE

+ BRIEF EVALUATION METHODOLOGY

See "Brief Evaluation Methodology" to determine *research design* and *sample/multisite* criteria

Source: <https://www.blueprintsprograms.org/>

Blueprints

See “Brief Evaluation Methodology” for *sample size* and *site* information.

COPING POWER

Blueprints Program Rating: Promising

A 16-month preventive group intervention for at-risk children in late elementary to early middle school years that includes a parent and child focus to prevent substance abuse and reduce aggressive attitudes and behaviors and, in a universal version of the program, among all school children.



BRIEF EVALUATION METHODOLOGY

Coping Power has been evaluated in five studies. The first study (Lochman & Wells 2002b; Lochman & Wells 2003; Lochman et al. 2013) examined the effects of Coping Power in comparison to, and in combination with, a universal intervention program (Coping with Middle School Transitions). It randomized 245 students in 17 schools to a universal intervention or universal control condition and high-risk children were further randomized in these groups to individual intervention or individual control groups. Assessments measuring substance use, self-regulation, social competence, school bonding, and parenting practices were implemented at baseline, midway, posttest, one-year post-intervention follow-up, and three-year post-intervention follow-up.

The second study (Lochman & Wells 2004), with a one-year post-intervention follow-up, compared the effects of the Coping Power program to that of the Child Component alone. It randomized 183 boys in 11 schools, scoring in the top 22% on aggression ratings, to a control group, the child intervention, or the child-parent intervention. There were 33 child sessions and 16 parent sessions and assessments measuring delinquency, substance use, and school behavior were completed at baseline, posttest, and one-year post-intervention follow-up.

A third study (Lochman et al. 2009; Lochman et al. 2012) randomized counselors in 57 schools to 1 of 3 conditions: Coping Power Training Plus Feedback, Coping Power Basic Training, or comparison condition. At-risk children were screened in the 3rd grade by teachers. Based on ratings, the 30% most aggressive children (n=531) across all classes were selected for inclusion in the study. Intervention was in grades 4 and 5, with pre-assessments prior to intervention and a post assessment in the summer after fifth grade, two years after the baseline assessment. A follow-up assessment occurred at the end of seventh grade, two years after completion of the program.

A fourth study (Muratori et al. 2015; Muratori et al. 2016) examined a universal version of the program using first- and second-grade students in two schools in Italy. The study randomized nine classrooms (184 students) into intervention and control conditions and assessed measures of emotional, behavioral, and peer problems at pretest, posttest, and at 12-month follow-up.

A fifth study (Muratori et al. 2017) examined a universal version of the program using third- and fourth-grade students in 6 schools in Italy. The study randomized 40 classrooms (901 students) into conditions (20 classrooms and 488 students in treatment) and assessed measures of conduct problems, hyperactivity, emotional symptoms, and overall stress. A pretest and a posttest were conducted in September 2014 and May 2015, respectively.

Source: <https://www.blueprintsprograms.org/>

Crime Solutions

Research topics focus on root causes of crime, such as mental and physical health.

Clearinghouse Tier	Research Design	Large, Multisite Study?	ESSA Tier
Effective	--	Yes	Tier 1
	--	No or not available	Tier 3
Promising	Experimental (at least 1 study)	Yes	Tier 1
	Quasi-experimental only	Yes	Tier 2
	--	No	Tier 3
No effects	--	--	Not aligned

Source: <https://www.crimesolutions.gov/>

Crime Solutions

The screenshot shows the homepage of Crime Solutions.gov. At the top left is the NIJ logo with the text "National Institute of Justice" and "STRENGTHEN SCIENCE. ADVANCE JUSTICE." To the right is the "OFFICE OF JUSTICE PROGRAMS" logo. Below the logo is a navigation bar with links for "Home | Help | Contact Us | Site Map | Glossary". The main header features the "Crime SOLUTIONS.gov" logo and the tagline "RELIABLE RESEARCH. REAL RESULTS." Below this is a search bar with the placeholder text "Enter your keyword(s)" and buttons for "Search Site" and "Advanced Search". A green navigation bar contains links for "TOPICS", "All Programs & Practices", "About CrimeSolutions.gov", "Resources", "FAQs", and "Nominate". On the left side, there is a "Topics A-Z" menu with categories like "Corrections & Reentry", "Courts", "Crime & Crime Prevention", "Drugs & Substance Abuse", "Juvéniles", "Law Enforcement", "Technology & Forensics", and "Victims & Victimization". The "Juvéniles" category is expanded, showing sub-topics: "Child Protection/Health", "Children Exposed to Violence", "Delinquency Prevention", "Risk & Protective Factors", "Schools", and "Special Populations". The "Schools" sub-topic is highlighted. In the center, there is a banner titled "See the Impact" with the text "See how CrimeSolutions.gov can be used to help address criminal activity in your community." Below the banner are several small images, including a "CHALLENGE" graphic and a "Crime SOLUTIONS.gov" logo. At the bottom left, there is a red-bordered box with text: "The Office of Justice... currently operational through 5:00 p.m. (EST) on March 1, 2019. OJP staff, systems, and services are available to assist grantees, stakeholders, and the public. While OJP remains operational, grantee payment requests received through the Grants Payment...". At the bottom right, there are social media icons (email, print, mail, RSS) and a section titled "I would like to:" with a link: "Learn how programs and practices are rated".

Source: <https://www.crimesolutions.gov/>



Crime Solutions

Research design is indicated at “Randomized Control Trial” column.

Enter your keywords

All Programs & Practices | About CrimeSolutions.gov | Resources

[Home](#) > [Topics](#) > [Juveniles](#) > Schools



Juveniles

Schools

- [Overview](#)
- [Programs](#)
- [Practices](#)

CrimeSolutions.gov reviews programs and practices that address issues of school safety and violence, school discipline, school climate and attachment, truancy, and dropout rates. These programs and practices include those that take place during the school day, afterschool programs and at alternative schools.

Programs

View All Programs (165)	<input checked="" type="checkbox"/> View Effective (27)	<input checked="" type="checkbox"/> View Promising (98)	<input type="checkbox"/> View No Effects (40)	Filter Results
Showing 1 to 5 of 98 entries		Records per Page: 5		
Title	Evidence Rating	Topics	Summary	Randomized Controlled Trial ?
4th R Curriculum	<input checked="" type="checkbox"/>	<ul style="list-style-type: none">Crime & Crime PreventionJuvenilesVictims & Victimization	The 4th R is an interactive classroom curriculum that aims to reduce youth dating violence by addressing youth violence	Randomized Controlled Trial

Source: <https://www.crimesolutions.gov/>

Crime Solutions

Sample and site information at “Evaluation Methodology”

Program Profile: 4th R Curriculum

Evidence Rating: Promising - One study 

Evaluation Methodology

Study 1

Wolfe and colleagues (2009) used an experimental design to evaluate the 4th R Curriculum. Thirty rural and urban high schools in Southwest Ontario in Canada were recruited for the study, based on general school populations and the agreement of principals to conduct randomization, teacher training, delivery of the assigned intervention, and evaluation; and to restrict similar programs during delivery. The participants were all students enrolled in the ninth grade Health and Physical Education curriculum within those schools. Schools were randomly assigned to the intervention or control group.

Students in the experimental schools received the 21-lesson intervention curriculum, “Fourth R: Skills for Youth Relationships.” The program was implemented for one-year prior to the evaluation. Students in the comparison schools received a standard Health and Physical Education curriculum in sex-segregated classrooms. Teachers in the comparison schools were required to cover the topics of the three units being taught in the intervention schools, but without any background or training on these topics or access to a structured curriculum.

All participating schools (20 total) had a large student body, were split equally between urban and rural locations, and had comparably experienced teachers. The control and experimental groups were similar in characteristics. More than 80 percent of students’ parents were married and employed, and more than half of the parents had a college degree. Both groups had similar levels of risk behaviors, with 1 percent of participants in both groups showing physical dating violence in the past year. A total of 1,722 students participated in the study (754 in the control group and 968 in the intervention group). Intervention schools had higher consent rates, possibly due to teachers’ efforts in these schools to obtain consent as a result of greater familiarity with the program from the previous pilot year.

Source: <https://www.crimesolutions.gov/>

Next Steps

For any given CSI or TSI school, find a study that measures the relationship between the intervention and outcome of interest, through various sources:

- Online clearinghouses that compile and evaluate research studies
- Research studies not evaluated in clearinghouses
- Single-study reviews commissioned through IES

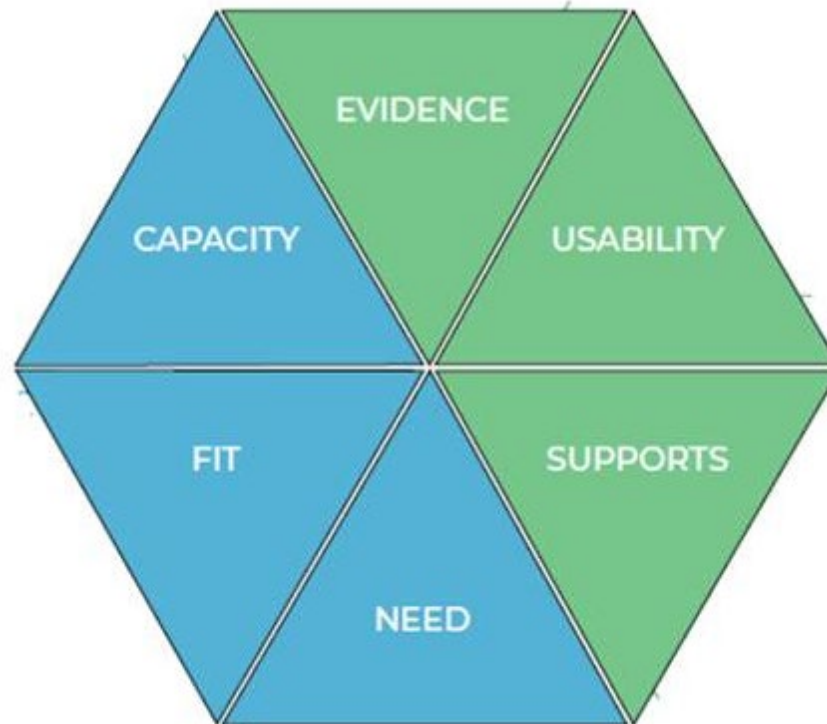
Next Steps (continued)

Determine rigor of study:

- Ensure the study meets at least Tier 3
- Select Tier 1 or Tier 2 studies for better fit with your student population and setting and more rigorous results based on causal inference

Next Steps (continued)

Consider the broader context beyond evidence to make final EBP selections.



Source: Metz & Louison, 2018

Q & A

Thank you!



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Comprehensive Center

at American Institutes for Research ■

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References

- Davis, E., Smither, C., Zhu, B., & Stephan, J. (2017). *Characteristics and postsecondary pathways of students who participate in acceleration programs in Minnesota* (REL 2017–234). Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory Midwest. Retrieved from <http://ies.ed.gov/ncee/edlabs>
- Every Student Succeeds Act of 2015, Pub. L. No. 114-95 (2015). Retrieved from <https://www.govinfo.gov/content/pkg/PLAW-114publ95/html/PLAW-114publ95.htm>

References (continued)

Institute of Education Sciences, What Works Clearinghouse. (n.d.). *Practice guides*. Retrieved from <https://ies.ed.gov/ncee/wwc/PracticeGuides>

Institute of Education Sciences, What Works Clearinghouse. (n.d.). *Select topics to Find What Works based on the evidence*. Retrieved from <https://ies.ed.gov/ncee/wwc/>

Metz, A., & Louison, L. (2018). *The Hexagon Tool: Exploring context*. Chapel Hill, NC: National Implementation Research Network, Frank Porter Graham Child Development Institute, University of North Carolina at Chapel Hill. Based on Kiser, Zabel, Zachik, & Smith (2007) and Blase, Kiser, & Van Dyke (2013).

National Institute of Justice. (n.d.). *Crime Solutions.gov* [website]. Retrieved from <https://www.crimesolutions.gov/>

References (continued)

Substance Abuse and Mental Health Services Administration. (2018, April 3). *Evidence-based practices: Resource center*. Retrieved from <https://www.samhsa.gov/ebp-resource-center>

Social Programs That Work. (2019). *What works in social policy? Programs with credible evidence from well-conducted randomized controlled trials (RCTs) of important effects on people's lives*. Retrieved from <https://evidencebasedprograms.org/>

University of Colorado Boulder, Institute of Behavioral Science, Center for the Study and Prevention of Violence. (2019). *Blueprints for healthy youth development*. Retrieved from <https://www.blueprintsprograms.org/>