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

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Mara Schanfield, Project Lead, Midwest Comprehensive Center

January 30, 2019
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

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<tr>
<th>Tier Criterion</th>
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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.

Source: ESSA
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
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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
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Research Design

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

Practice
- Drop-out prevention program
- Instructional adjustments

Outcome
- Graduation rate increase
- Achievement score increase

Tier 1 and 2: Causal
Tier 3: Correlational
Research Design

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

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Research Design

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

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)

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

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<td></td>
<td></td>
</tr>
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<td>1.21***</td>
<td>(1.16, 1.26)</td>
</tr>
<tr>
<td>Black</td>
<td>1.25***</td>
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</tr>
<tr>
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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)
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**

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

**What Causes Attrition?**

- Lack of consent
- Inconsistent or missing data
- Transfer from study school
- Student absenteeism
- Refusal to participate
- Dropping out of the study
- Inability to locate

25
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**

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

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<th>Factors</th>
<th>Example</th>
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<td>![Race Icon]</td>
</tr>
<tr>
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<tr>
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**Group Equivalence:**

**Statistical Controls for Bias**

Tier 3 studies control for bias using covariates.

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**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?

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<td></td>
<td>Enrolling in 4-year college</td>
<td>Enrolling in 2-year college</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>1.06</td>
<td>-.07</td>
<td></td>
</tr>
<tr>
<td>Hispanic</td>
<td>-0.51</td>
<td>0.36</td>
<td></td>
</tr>
<tr>
<td>Free or reduced-price lunch</td>
<td>-0.09**</td>
<td>0.16*</td>
<td></td>
</tr>
<tr>
<td>Took dual/concurrent course</td>
<td>0.29***</td>
<td>-0.24</td>
<td></td>
</tr>
<tr>
<td>Took at least one AP course</td>
<td>0.46*</td>
<td>-0.23**</td>
<td></td>
</tr>
</tbody>
</table>

*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

<table>
<thead>
<tr>
<th></th>
<th>3rd Grade ELA achievement</th>
<th>3rd Grade Reading diagnostic</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>With Reading 180</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>English learner</td>
<td>.91*</td>
<td>.71**</td>
</tr>
<tr>
<td>Poverty status</td>
<td>.78</td>
<td>.90***</td>
</tr>
<tr>
<td><strong>Original Curriculum</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>English learner</td>
<td>.83*</td>
<td>.61**</td>
</tr>
<tr>
<td>Poverty status</td>
<td>.71</td>
<td>.82***</td>
</tr>
</tbody>
</table>

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

Magnitude of effect is not relevant; only should be positive
## Evidence Tier Criteria for Evaluating a Study

<table>
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<td>✔</td>
<td>✔</td>
<td>Includes evaluation plan</td>
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<tr>
<td><strong>4</strong> No significant unfavorable effect from Tier 1 or Tier 2 study <em>(by outcome)</em></td>
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<td>✔</td>
<td>✔</td>
<td>n/a</td>
</tr>
<tr>
<td><strong>5</strong> Large study sample</td>
<td>✔</td>
<td>✔</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td><strong>6</strong> Multisite study sample</td>
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<td>✔</td>
<td>n/a</td>
<td>n/a</td>
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<td>Students and setting</td>
<td>Students or setting</td>
<td>n/a</td>
<td>n/a</td>
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</table>
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.
## Evidence Tier Criteria for Evaluating a Study

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Large Study Sample

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

- Must have \textbf{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
Study Sample Overlap With Target Population

- For Tier 1, student population and setting
- For Tier 2, student population or 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 characteristics and/or setting
Determining Evidence Tier

1. Study Design
   - Experimental
   - Quasi-experimental
   - Correlational

2. Low attrition?
   - Yes
     - Statistical significant favorable effect?
       - Yes
         - Countervailing unfavorable effects from causal studies?
           - Yes
             - Tier 1: Strong Evidence
           - No
             - Large, multisite sample?
               - Yes
                 - Sample and setting overlap
               - No
                 - Tier 2: Moderate Evidence
       - No
         - Baseline equivalence?
           - Yes
             - Statistical controls for selection bias?
               - Yes
                 - Well-specified logic model?
                   - Yes
                     - Tier 4: Demonstrates a Rationale
                   - No
                     - No
                       - No
                         - Does not meet criteria for ESSA evidence tiers
           - No
             - Tier 3: Promising Evidence
       - No
         - No

3. Correlational
   - Statistical controls for selection bias?
     - Yes
       - Well-specified logic model?
         - Yes
           - Tier 4: Demonstrates a Rationale
         - No
           - No
             - No
               - Does not meet criteria for ESSA evidence tiers
     - No
       - No
         - No
           - No
             - No
               - Does not meet criteria for ESSA evidence tiers
   - No
     - No
       - No
         - No
           - No
             - No
               - Does not meet criteria for ESSA evidence tiers
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 susetted. 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-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.

<table>
<thead>
<tr>
<th>Clearinghouse</th>
<th>Description</th>
<th>Resources</th>
</tr>
</thead>
</table>
| **What Works Clearinghouse (WWC)** | The What Works Clearinghouse 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. Goal: 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?” 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. | - Review Process  
What We Do:  
https://ies.ed.gov/ncee/wwc/WhatWeDo  
- Topics:  
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  
- Practice Guides with Recommendations  
https://ies.ed.gov/ncee/wwc/PracticeGuides  
- Videos & Reviews of Individual Studies |

Minnesota Department of Education | Midwest Comprehensive Center
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

Filter by topic

- Literacy
- Mathematics
- Science
- Behavior
- Children and Youth with Disabilities
- English Language Learners
- Teacher Experience
- Charter Schools
- Early Childhood (pre-K)
- Kindergarten to 12th Grade

Path to Graduation

Evidence of effectiveness

- Dual Enrolment Programs
- Accelerated Middle Schools
- Check & Connect
- ACT/SAT Test Preparation and Coaching Programs
- Green Dot Public Schools
- Summer Counseling
- Financial Incentives for Teen Parents to Stay in School
- Career Academies
- Achievement for Latino/as through Academic Success (ALAS)
- First year experience courses
- High School Redirection
- Talent Search

Grades examined

- 9-12
- 6-8
- 9-12
- 10-12
- 9-12
- 12-15
- 11-12
- 9-12
- 7-9
- P5
- 9-12
- 11-12

Compare

- Preventing Dropout in Secondary Schools Practice Guide Summary

Edreeduca's 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.

Introduction

Students who do not complete high school face economic and social challenges throughout their lifetimes. They are more likely to be unemployed, earn lower wages, have poor health, engage in criminal activity, and receive public assistance. The Preventing Dropout in Secondary Schools practice guide from the What Works Clearinghouse is based on research 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. Recommendation 4 should be implemented primarily in schools with high dropout rates.
Find What Works
Visit the WWC Website

Source: https://ies.ed.gov/ncee/wwc/
# Evidence Tier Criteria for Evaluating a Study

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## Find What Works

<table>
<thead>
<tr>
<th>Clearinghouse tier</th>
<th>Favorable statistical significance and no unfavorable significant impact from other Tier 1 or Tier 2 studies?</th>
<th>Sample/setting overlap</th>
<th>ESSA tier</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meets standards without reservations</td>
<td>Yes</td>
<td>Sample and setting</td>
<td>Tier 1</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>Sample or setting</td>
<td>Tier 2</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
<td>Tier 3</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>--</td>
<td>Not aligned</td>
</tr>
<tr>
<td>Meets standards without reservations</td>
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<td>Tier 2</td>
</tr>
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<td></td>
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<td>Does not meet design standards</td>
<td>Yes</td>
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Select a Topic Area That Aligns With Your Outcome of Interest or Practice

Source: https://ies.ed.gov/ncee/wwc/
Select Multiple Filters to Narrow Your Search

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

“Leveled Literacy Intervention”

| **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 |
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

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:

<table>
<thead>
<tr>
<th>- -</th>
<th>-</th>
<th>0</th>
<th>+ -</th>
<th>+</th>
<th>++</th>
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- -  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
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Select a Specific Study to Determine:

- **Research design**
- **Group equivalence**

Meets WWC Standards Without Reservations

Signifies criteria #1 and #2 meet Tier 1 requirements

Source: https://ies.ed.gov/ncee/wwc/Study/85470
Meets WWC Standards With Reservations

Signifies criteria #1 and #2 meet Tier 2 requirements

Reviewed: January 2018

For:

Knowledge is Power Program (KIPP) Intervention Report - Charter Schools

Using:

- Charter Schools Review Protocol 3.0
- Review Standards 3.0

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

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Sample Size

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

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

Source: [https://ies.ed.gov/ncee/wwc/Study/78712](https://ies.ed.gov/ncee/wwc/Study/78712)
Multisite Study:

- See “Study Details” for more explicit information

Source: [https://ies.ed.gov/ncee/wwc/Study/78712](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](https://ies.ed.gov/ncee/wwc/Study/78712)
See “Intervention Report” for Additional Contextual Information

### Reviewed Research

<table>
<thead>
<tr>
<th>Outcome Domain</th>
<th>Effectiveness Rating</th>
<th>Studies Meeting Standards</th>
<th>Grades Examined</th>
<th>Students</th>
<th>Improvement Index</th>
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<tbody>
<tr>
<td>Alphabets</td>
<td>0</td>
<td>1 study meets standards</td>
<td>K-2</td>
<td>422</td>
<td>--</td>
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<tr>
<td>Reading achievement</td>
<td>++</td>
<td>2 studies meet standards</td>
<td>K-2</td>
<td>747</td>
<td>11</td>
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<tr>
<td>Reading fluency</td>
<td>++</td>
<td>1 study meets standards</td>
<td>K-2</td>
<td>281</td>
<td>11</td>
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Source: [https://ies.ed.gov/ncee/wwc/Study/78712](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

Educator Practice Guides
## Educator Practice Guides

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Strong (Tier 1)</td>
<td>Strong</td>
<td>Sample and setting</td>
<td>Version 2.1, 3.0 or 4.0 (September 2011 or later)</td>
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<td>Moderate (Tier 2)</td>
<td>Strong or Moderate</td>
<td>Sample or setting</td>
<td>Version 2.1, 3.0 or 4.0 (September 2011 or later)</td>
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<td>Promising (Tier 3)</td>
<td>Strong or Moderate</td>
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</tbody>
</table>
WWC Practice Guides
See main landing page for handbook versions.

(see WWC Practice Guides)
WWC Practice Guides

See practice landing page for evidence ratings.

Preventing Dropout in Secondary Schools

Recommendations

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.

Details

Panel

Released: September 2017

PDF (4.4 MB)

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.
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

<table>
<thead>
<tr>
<th>Study and design</th>
<th>Participants and targeted grade range</th>
<th>Setting</th>
<th>Intervention condition as implemented in the study</th>
<th>Comparison condition as implemented in the study</th>
<th>Outcome domain and effect size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Berger et al. (2013)* Randomized controlled trial</td>
<td>2,458 high school students</td>
<td>10 Early College High Schools in 5 states (urban areas, mid-sized cities, and small towns)</td>
<td>Students attended Early College High Schools, 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. Early College High Schools 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.</td>
<td>Students participated in regular classes and activities at traditional high schools.</td>
<td>Graduating school = 0.22*^b</td>
</tr>
<tr>
<td>Dynarski et al. (1998) (Albuquerque Middle School Leadership Program) Randomized controlled trial</td>
<td>290 8th-grade students</td>
<td>4 middle schools in Albuquerque, New Mexico</td>
<td>Students participated in the Albuquerque Middle School leadership program, a weekly workshop designed to build student self-esteem, academic skills, and/or leadership skills.</td>
<td>Students participated in regular classes and activities.</td>
<td>Staying in school (cohorts 1 and 2) = −0.33*</td>
</tr>
<tr>
<td>Dynarski et al. (1998) (Boston)</td>
<td>212 high school students</td>
<td>3 alternative high schools in Boston,</td>
<td>Students attended alternative high schools that provided a competency-based curriculum and enhanced social services, including career</td>
<td>Students participated in regular classes and</td>
<td>Staying in school (cohort 1,</td>
</tr>
</tbody>
</table>
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

<table>
<thead>
<tr>
<th>Clearinghouse Rating</th>
<th>Large sample?</th>
<th>ESSA Tier</th>
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<tbody>
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<td>Top tier</td>
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<td></td>
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<td>Near top tier</td>
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<td>Tier 3</td>
</tr>
<tr>
<td>Suggestive tier</td>
<td>--</td>
<td>Does not align</td>
</tr>
</tbody>
</table>

Source: [https://evidencebasedprograms.org](https://evidencebasedprograms.org)
Social Programs That Work

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

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.

Read More

Source: https://evidencebasedprograms.org
Social Programs That Work

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

Source: https://evidencebasedprograms.org
Social Programs That Work

Sample size described in full evidence summary

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

<table>
<thead>
<tr>
<th>Clearinghouse tier</th>
<th>Research design</th>
<th>Large sample and multisite?</th>
<th>ESSA tier</th>
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<td></td>
<td>--</td>
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<td>Tier 3</td>
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<tr>
<td>Promising program</td>
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</table>

Source: [https://www.blueprintsprograms.org/](https://www.blueprintsprograms.org/)
Blueprints

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.

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.

Source: [https://www.blueprintsprograms.org/](https://www.blueprintsprograms.org/)
**Crime Solutions**

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

<table>
<thead>
<tr>
<th>Clearinghouse Tier</th>
<th>Research Design</th>
<th>Large, Multisite Study?</th>
<th>ESSA Tier</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effective</td>
<td>--</td>
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<td>Tier 1</td>
</tr>
<tr>
<td></td>
<td>--</td>
<td>No or not available</td>
<td>Tier 3</td>
</tr>
<tr>
<td>Promising</td>
<td>Experimental (at least 1 study)</td>
<td>Yes</td>
<td>Tier 1</td>
</tr>
<tr>
<td>Quasi-experimental only</td>
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<td>Yes</td>
<td>Tier 2</td>
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<td></td>
<td>--</td>
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</tr>
<tr>
<td>No effects</td>
<td>--</td>
<td>--</td>
<td>Not aligned</td>
</tr>
</tbody>
</table>

Source: [https://www.crimesolutions.gov/](https://www.crimesolutions.gov/)
Crime Solutions

Source: https://www.crimesolutions.gov/
Crime Solutions

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

Source: https://www.crimesolutions.gov/
Crime Solutions

Sample and site information at “Evaluation Methodology”

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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References


References (continued)


References (continued)

