



Chapter 3



Requirements for Evidence of Effectiveness and Design Standards



Requirements for Evidence of Effectiveness and Design Standards

- The strength of evidence you require may influence your selection of an appropriate evaluation design.
- If you want to provide stronger evidence of a program's effectiveness, you must adhere to more rigorous standards of evaluation design.^{1,2}

Every Student Succeeds Act Tiers of Evidence^{1,2}

- The Every Student Succeeds Act (ESSA) encourages state and local education agencies to use evidence-based programs.
- Evidence-based programs have evidence of their effectiveness in producing results and improving outcomes when implemented.
- Four ESSA tiers of evidence:
 - Tier 1 – Strong evidence
 - Tier 2 – Moderate evidence
 - Tier 3 – Promising evidence
 - Tier 4 – Demonstrates a rationale



What Works Clearinghouse Design Standards²

- The What Works Clearinghouse (WWC) is part of the Institute of Education Sciences within the U.S. Department of Education.
- The WWC reviews existing research on education programs, summarizes the findings of these reviews, and assigns evidence ratings to individual studies.
- These reviews help educators understand whether a given program has been found to be effective.

What Works Clearinghouse Design Standards (cont.)

- A study may be found to
 - meet WWC standards without reservations,
 - meet WWC standards with reservations, or
 - not meet WWC standards.
- For more information on the WWC standards, visit the website:
<https://ies.ed.gov/ncee/wwc/>.

Connecting the ESSA Tiers of Evidence and WWC Design Standards

	ESSA Tier	WWC Standard
Strong evidence	A well-designed and well-implemented randomized controlled trial (RCT).	Meets WWC group design standards without reservations (a well-implemented RCT with low attrition).
Moderate evidence	A well-designed and well-implemented quasi-experimental design (QED).	Meets WWC group design standards with reservations (a well-implemented RCT with high attrition, or a well-implemented QED, where baseline equivalence is met).
Promising evidence	A well-designed and well-implemented correlational design with statistical control for selection bias.	Does not meet WWC standards.

ESSA Tier 1: At Least One Finding Shows Strong Evidence of Effectiveness¹

- To be supported by strong evidence, a program must have at least one study that “meets WWC group design standards without reservations.”
 - This rating is limited to well-implemented RCTs with low attrition.
- The study must also have a large multisite sample and at least one outcome that is statistically significant and positive.

ESSA Tier 2: At Least One Finding Shows Moderate Evidence of Effectiveness¹

- To be supported by moderate evidence, a program must have at least one study that “meets WWC group design standards with reservations.”
 - This includes well-implemented RCTs with high attrition or well-implemented QEDs in which baseline equivalence is met.
- The study must also have a large, multisite sample and at least one outcome that is statistically significant and positive.

ESSA Tier 3: Promising¹

- To be supported by promising evidence, a program must have at least one study that used a correlational design comparing outcomes for a treatment group and a comparison group, and that used statistical controls for selection bias.
- The statistical controls can help account for preexisting differences between the treatment and comparison groups.
- Studies that provide promising evidence must show a statistically significant and positive effect, but they do not meet WWC standards.

ESSA Tier 4: Demonstrates a Rationale¹

- To demonstrate a rationale, a program must have a well-specified logic model with one intended outcome of interest that aligns with a stakeholder need.
- The program must be supported by existing or ongoing research demonstrating how it is likely to improve the outcomes identified in the logic model.

Guiding Questions: Evidence and Standards

- See the handout *Guiding Questions: Evidence and Standards* for a series of questions to help you align your evaluation design to the desired tiers of evidence and standards.

Guiding Questions Evidence and Standards

Directions: Use the following guiding questions to help you align your evaluation design to the desired tiers of evidence and standards.

Questions	Notes
What types of claims do you hope to make from the evaluation?	
What tier of evidence is needed to understand whether the program is working as intended?	
What tier of evidence is needed to satisfy stakeholders?	
Does this approach align with local priorities and community values?	
Are there adequate staffing, data systems, and administration to pursue a given tier of evidence?	
What is the time frame of your evaluation?	
What level of statistical expertise does your team have?	
Do you have funds to hire an external evaluator?	
Is random assignment feasible?	
Is there a minimum tier of evidence required to meet funding requirements (for example, section 1003 funds, school improvement plans, or other grants)?	

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Additional Resources

- *Guiding Questions: Evidence and Standards*



Evaluation Design Selection Worksheet

- Complete the *Evaluation Design Selection Worksheet* to see which evaluation design category makes the most sense for you.

Evaluation Design Selection Worksheet

Directions: Answer the following questions by circling *yes* or *no* for each design category. Include additional context as necessary.

Question	Descriptive design	Correlational design	Quasi-experimental design (QED)	Randomized controlled trial (RCT)
Are there evaluation questions that align with this design category? (If yes, identify the evaluation questions that align with this design category)	Yes / No Additional context:	Yes / No Additional context:	Yes / No Additional context:	Yes / No Additional context:
Does funding require this design to meet design standards? (If yes, identify the evaluation questions that require this design category)	Yes / No Additional context:	Yes / No Additional context:	Yes / No Additional context:	Yes / No Additional context:
Are there concerns about your organizational capacity to conduct an evaluation with this design? (If yes, explain)	Yes / No Additional context:	Yes / No Additional context:	Yes / No Additional context:	Yes / No Additional context:



Additional Resources

- *Evaluation Design Selection Worksheet*





Chapter 3 Complete

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2

3

Recommended next: Module 4 – Evaluation Samples



Thank You

Please visit our website and follow us on Twitter
for information about our events, priorities, and research alliances,
and for access to our many free resources.

ies.ed.gov/ncee/edlabs/regions/central/index.asp

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Reference

1. U.S. Department of Education. (September 2016). *Non-regulatory guidance: Using evidence to strengthen education investments*. U.S. Department of Education, Office of Elementary and Secondary Education.
<https://www2.ed.gov/policy/elsec/leg/essa/guidanceuseinvestme nt.pdf>
2. What Works Clearinghouse. (n.d.). *Using the WWC to find ESSA tiers of evidence*. U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance. <https://ies.ed.gov/ncee/wwc/essa>