

# Crafting Strong Measures for Indicators of Performance



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## **2M Research**

Nicole Togno, PhD  
Ashley Simpkins, MA  
Naorah Lockhart, PhD



Education  
Research



Clinical  
Research



Public Health  
Research and  
Practice



Social, Behavioral,  
and Methodological  
Sciences Research

The Education Practice currently has contracts with the **Department of Education**, the **National Science Foundation**, and the **Small Business Administration**.



2M provides technical assistance to the Department of Education's Arts in Education grantees—including review of goals, objectives, and performance measures.



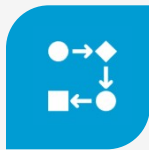
## Overview



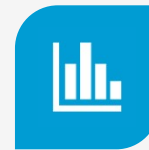
- The role of the evaluator
- How to demonstrate evidence of success
- How to implement a strong evaluation design
- Performance measures activity

# The Role of the Evaluator

A **high-quality evaluation design** includes the evaluator in planning, implementation, and evaluation.



Assist in the development of a **logic model**



Recommend analysis methods and perform **analyses**



Assist in the development of **performance measures**



**Interpret** analysis results



Define the **comparison group**



Assess the **impact** of program changes on the evaluation activities



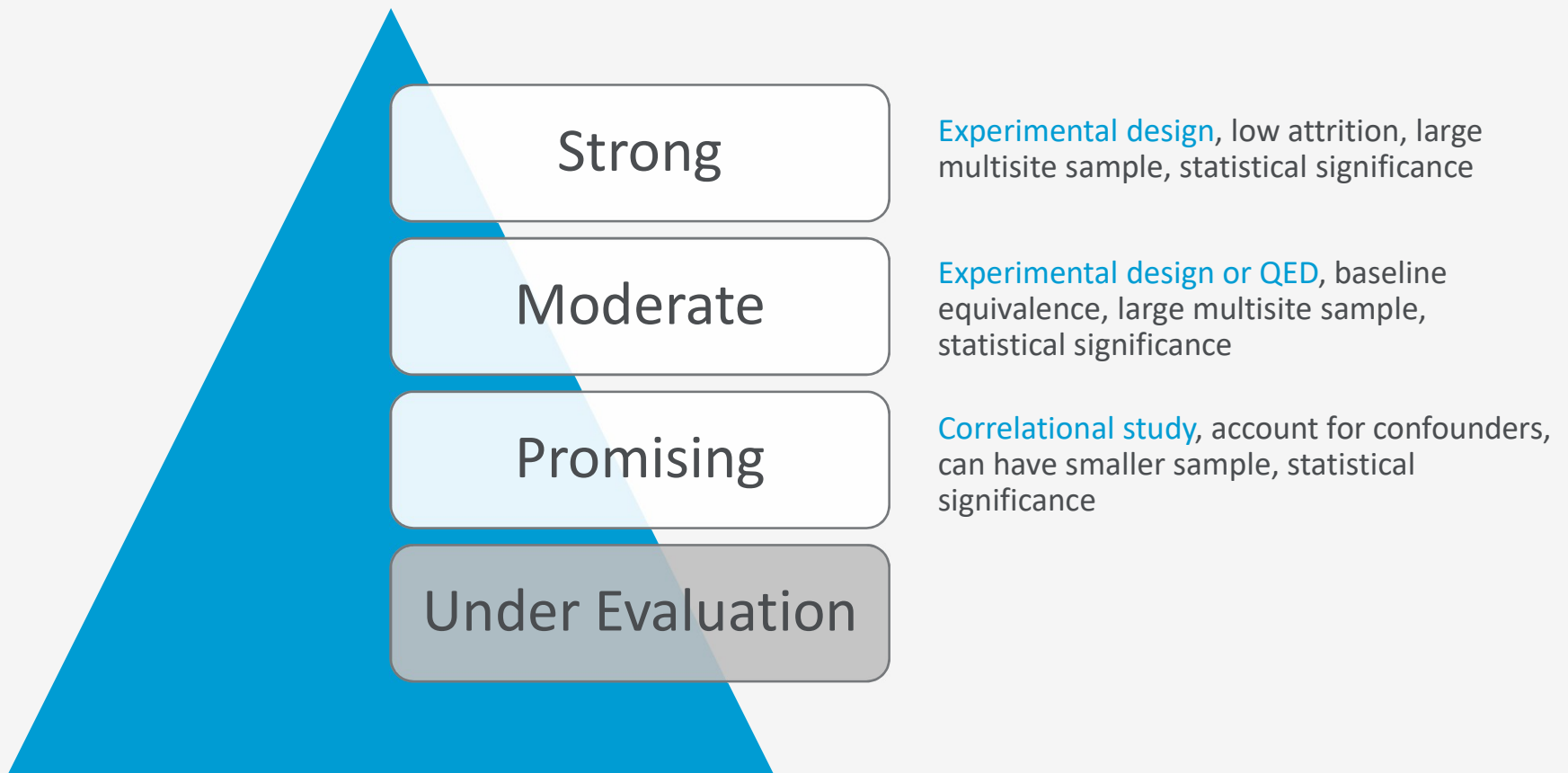
Recommend data collection plans and identify or develop **assessment tools**



## Evidence of Success



The Every Student Succeeds Act (ESSA) defines **four levels of evidence**, each offering an increasingly rigorous evidence base.





### What Works Clearinghouse (WWC) Standards

#### Strong evidence

- ***Always*** meets WWC standards **without reservations**

#### Moderate evidence

- ***Always*** meets WWC standards **with reservations**

#### Promising evidence

- ***May*** meet WWC standards **with reservations** if there is a valid comparison group and baseline equivalence



## Evaluation Design



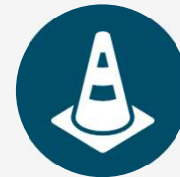
Regardless of the level of evidence, all evaluations should **monitor progress** and **assess fidelity**.

**Monitor progress**  
toward goals and  
objectives of the project

**Assess fidelity**  
or whether and to what  
extent the project is  
implemented as  
intended



Understand if and to  
what extent the  
intervention has  
impacted the population



Understand areas  
where improvement  
in project activities  
is needed



Communicate the  
successes and  
lessons learned  
from a project



Complete required  
reports clearly and  
efficiently



## Evaluation Design



Ensure there is alignment between the **goals**, **objectives**, and **performance measures**.



A **goal** is a general statement that describes what the program seeks to accomplish.

*Improve student achievement in English Language Arts (ELA)*

An **objective** is a targeted statement that specifies how a project goal will be met.

*Expose students to arts-integrated curriculum units to increase content knowledge in ELA*

A **performance measure** is a metric used to gauge progress toward a project goal.

*90 percent or more of participating students improve on an assessment of ELA knowledge by Fall 2019*





## Monitoring Progress

- Utilize performance measures to gauge progress toward each goal and objective of the project
- May be required by program guidelines (e.g., GPRA)
- Five components of **strong** performance measures





# Evaluation Design



Select the appropriate **tools** to measure outcomes.

## Student Achievement



- Standardized assessments and course assessments
- Grades

## Student Skills



- Teacher evaluations
- Student surveys

## Teacher Capacity



- Teacher surveys
- Assessments of content knowledge pre- and post-project

## Classroom Climate



- Teacher and student surveys
- Classroom referrals
- Attendance logs

## Parent or Community Involvement



- Parent attendance logs
- Parent or community surveys
- Community involvement checklist



# Evaluation Design



Ensure the **reliability** and **validity** of selected tools.

## Validity

The extent to which an instrument measures what it is supposed to measure

An end-of-year ELA assessment

- Does the assessment fairly and accurately capture proficiency in ELA knowledge?
- If not, the assessment is not *valid*.

## Reliability

The extent to which the instrument consistently measures the same construct

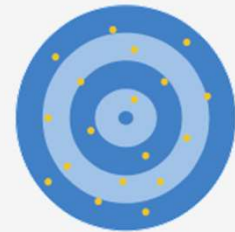
A teacher survey with questions about student engagement

- Are the answers teachers give to each question consistently reflecting a similar level of engagement?
- If answers (pertaining to same students) differ significantly across question, time, or teacher, the survey is not *reliable*.

High  
Reliability  
and Low  
Validity



Low  
Reliability  
and Low  
Validity



High  
Reliability  
and High  
Validity





# The Evaluation Planning Matrix (EPM)



Ensures that **goals and objectives** have associated **performance measures and data sources**

Focuses evaluation activities on **collecting evidence that speaks directly to progress toward the goals** of the project

Ensures that the **entire project team is on the same page**

Helps identify potential **challenges and resources** to address them

Serves as a **management tool**

### Example:

Goal	Objective	Performance Measure	Data Source/Tool
Improve student achievement in ELA	Expose students to arts-integrated curriculum units to increase content knowledge in ELA	90 percent or more of participating students improve on an assessment of ELA knowledge by fall 2019	Standardized assessment



## Example of a Problematic EPM

Goal	Objective	Performance Measure	Data Source/Tool
Increase student engagement in the classroom	Expose students to arts-integrated curriculum to increase engagement in math class	Students will appear more engaged by Spring 2019	Pre-post classroom observation
Improve teacher content knowledge of the arts	Expose teachers to learning opportunities	Treatment teachers will score significantly better on an assessment of arts content knowledge than comparison teachers by Fall 2019	A pre-post assessment of teacher perceptions of arts integration
Improve student reading comprehension	Implement professional development workshops for teachers	95% of students will experience a statistically significant increase in reading comprehension from Fall 2018 to Fall 2019	A standardized assessment of student reading comprehension given at the end of the intervention



## Example of a Problematic EPM

Non-specific language

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↖ **Lacks detail**

↖ **Limited content validity**



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**Not aligned to goal**



**Unrealistic and not measurable**





## Performance Measures Activity

1. Think about the three most important goals of a current or previous project.
2. Develop an EPM with at least one objective and one performance measure for each goal, and the data source/tool you plan to use or are using to capture the information.
3. Discuss each EPM as a group.

Goal	Objective	Performance Measure	Data Source/Tool