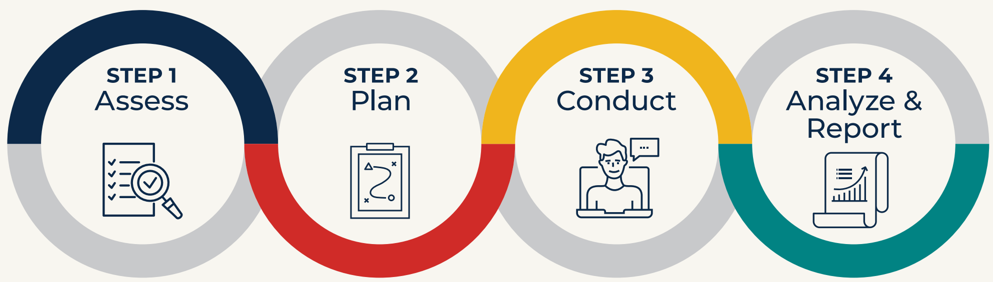
Measurement and Evaluation Checklist

This tool is part of Mathematica's suite of measurement and evaluation (M&E) tools, which provides a road map for generating timely and actionable evidence about what works for whom, and in what context. The tools were designed to promote rapid innovation and scaling of promising solutions (such as programs, practices, or products). The Measurement and Evaluation Checklist is used in Step 2 and Step 4 of the M&E process.



Learn more about the M&E process and other tools here:
https://www.mathematica.org/features/advancing-educational-equity

Who should use the Measurement and Evaluation Checklist?

Funders and organizations, with support from a research partner, can use or adapt the checklist.

What is the Measurement and Evaluation Checklist?

The M&E Checklist is a resource that guides users through an evidence-building process as they design, refine, and test a solution in collaboration with community partners. The M&E Checklist includes four documents—one for each of the evidence-building phases: Design the Solution (Phase 1), Refine the Solution (Phase 2), Assess for Early Evidence of Success (Phase 3), and Validate Effectiveness (Phase 4). The checklist activities focus on iterative learning, which may mean completing a phase multiple times, moving backwards to a previous phase, or abandoning a solution altogether. The checklist serves several purposes:

- ✓ **Design and evaluation planning.** Organizations designing and implementing solutions can use the M&E Checklist with support from a research partner during Step 2, Plan M&E, as a guide to develop a detailed M&E Plan—or road map—to address key research questions for a given phase of the solution's development.
- ✓ **Reporting.** Organizations—and funders, where relevant—can also use the M&E Checklist during Step 4, Analyze and Report Results, to assess the extent to which the plan was executed as intended and the extent to which the targets for a given phase of the development were met (as reported in the M&E Reporting Template).

- ✓ **Organizational or grantee alignment.** The M&E Checklist can also be used to align goals and objectives for the M&E work across an organization and its funder, when applicable. For funders working with multiple organizations, the M&E Checklist also promotes continuity across M&E Plans, allowing for streamlined review, improved understanding, and cross-solution comparisons**.**

In each phase, the checklist includes the following:

- **Key assumptions.** The activities organizations should have completed or targets they should have achieved before entering the current phase. If your organization did not complete the activities described in the key assumptions, consider starting at an earlier phase.
- **Reflection questions.** The questions that organizations can ask themselves to help them revisit their assumptions, center equity in their work, and plan next steps.
- **Principles.** Focus areas that guide the work across all phases. The principles include equity and community voice, program articulation, implementation, outcomes, scalability, and knowledge sharing.
- **Planning and execution activities.** The activities organizations should plan for and then complete before exiting the phase. Although organizations may plan for and execute *some* activities within a phase at first, all activities should be completed before exiting the phase.
- **Checkpoints.** Prompts for organizations to pause and reflect on learnings to-date to inform improvements to the solution design and updates to the M&E Plan. At each checkpoint, organizations can review the findings to determine whether to advance to the next phase, continue iterating in the same phase, or return to an earlier phase.

Phase 2: Refine the Solution

The goal of Phase 2 is to refine the solution based on lessons learned during implementation, with the goal of developing descriptive evidence that the refined solution was successfully implemented in the community in focus.

Before entering Phase 2, organizations should have partnered with a defined community to design a solution and develop a theory of change. During Phase 2, organizations and community collaborators work together to implement the solution for the first time in the community in focus and refine the solution design based on feedback and lessons learned during implementation. By the end of Phase 2, the solution should be successfully implemented in the community in focus, with the theory of change updated to reflect improvements made to the solution. It is common to repeat Phase 2 multiple times before moving on to Phase 3. Organizations that are implementing the solution for the first time with a community that was not involved in the solution design should prioritize establishing a partnership with the community and understanding the implementation context before beginning the activities in this phase (see Phase 1).

Key Assumptions. Before beginning activities in Phase 2, organizations should have completed the following activities in partnership with the community[1] (Please see Phase 1 activities for more guidance):

- ✓ Unpacked the identified problem and designed a solution that is specific to the implementation context
- ✓ Developed a well-defined theory of change (specific to the implementation context) that includes outputs and outcomes meaningful to the community in focus

[1] We recommend that organizations enter at Phase 2 if this is the first time implementing the solution in a specific community.

As a fictitious illustrative example, before entering Phase 2, an organization and the community in focus might have created the following solution:

- A mobile application for students that builds on city tracking data to alert students of transit delays to avoid long wait times at bus stops, with the long-term goal of addressing chronic absenteeism

Equity and community voice activities are central to the evidence-building process and are integrated throughout this checklist.

When organizations partner with communities and include the voices and interests of the community in designing the solution and planning and executing the evaluation, both the solution and the evaluation will be more relevant and meaningful to the community in focus and are more likely to be successful. Activities associated with equity and community voice focus on identifying community collaborators who will partner and work with your organization to plan and execute all activities in each phase. Collaborators can also help organizations identify the best ways to engage and learn from the community in focus during each phase.

How are you planning to use this checklist?

Select one:

☐ **Planning.** Make a plan for how you will complete these activities.

☐ **Execution.** Confirm that the activities were completed.

☐ Planning ☐ Execution

Principle: Equity and Community Voice

Solutions are designed, improved, and tested through partnership with community collaborators.

Planning and execution activities

Organizations should plan for and complete the following tasks in Phase 2.

- ☐ Clearly and narrowly define the community in focus in which implementation will occur and specify the solution users.
- ☐ Identify community collaborators and partner with them to develop the implementation plan and execute checklist activities, including interpreting findings.
- ☐ Define and share the purpose of the implementation study with additional members of the community in focus before the study begins.
- ☐ Describe how you plan to partner and work with community collaborators to incorporate their perspectives throughout evaluation planning and execution to design, refine, and test the solution.

Notes

Reflection questions

1. Who will represent the community in focus? For example, is there a community liaison who understands the cultural context and can help navigate and communicate the design and evaluation process for the community in focus? Can a group of community collaborators be established?
2. What strategies will you use to partner with and engage the community in focus as early as possible and throughout the evaluation planning and execution in ways that authentically include their perspectives but are not overly burdensome? How will you build trust and get their buy-in?
3. How much time will be required of collaborators throughout planning and execution? How will you compensate them for their time? Do collaborators have flexibility in how and how much they are involved?
4. Do you have experience working with or learning from the community in focus? If not, how can you engage someone who has?
5. How will you address disagreement between collaborators? Whose voice will be prioritized if there is disagreement between you and the community in focus? Whose voice will not be prioritized?
6. How will you demonstrate that you partnered with collaborators and incorporated their perspectives throughout this process?
7. How will you identify and address possibilities of risk and harm from your solution for the community in focus?

Checkpoint

Organizations should routinely pause and reflect on the perspectives of the community and ensure evaluation activities and solution improvements align with those perspectives.

Principle: Program Articulation

Solutions are well-articulated and continuously refined.

Planning and execution activities

- ☐ Describe how you considered (or did not consider) the community assets, strengths, and needs of the community in focus while designing the solution.
- ☐ Iteratively refine the solution's activities and strategies, outputs, and outcomes based on implementation and outcome findings, and update the theory of change to reflect these changes.
- ☐ Describe how you refined the solution based on implementation findings.

Notes

Organizations and research partners should collaborate and partner with community members to plan and execute all activities.

Phase 2: Refine the Solution

Reflection questions

1. If the solution was not designed with or for the community in focus, who designed it and who was it designed for? Who was the solution not designed for? How do you know the solution is a good fit and relevant for the community in focus?
2. If the solution was not designed with or for the community in focus, how will you adapt the solution to account for the assets, strengths and needs, and implementation context of the community? When and how will you engage the community to ensure lived experiences inform improvements to the solution?

Checkpoint

Organization refines the solution's theory of change based on implementation learnings before proceeding to Phase 3.

☐ Planning ☐ Execution

Principle: Implementation

Solutions account for implementation context and are successfully implemented in the community in focus.

Planning and execution activities

- ☐ Engage solution users and community collaborators to understand if the solution is usable, useful, or utilized and why (or why not). Review the "3Us – Usability, Usefulness, Utilization" document for more information, including establishing measurable implementation thresholds.
- ☐ Meet or exceed "good" targets for implementation if using quantitative measures.
- ☐ Describe how process targets for qualitative measures informed solution improvement.
- ☐ Describe how intended implementation differed from actual implementation.
- ☐ Describe the conditions, factors, or context necessary for implementation success.

Notes

Organizations and research partners should collaborate and partner with community members to plan and execute all activities.

Reflection questions

1. How can you adapt the solution to account for the intended implementation context (including anticipated facilitators and barriers)? If the solution was previously implemented, what was the implementation context, and how is it similar to or different from this implementation context?
2. Does the community in focus demonstrate readiness and willingness to use the solution?
3. If the solution is not useable or useful to the community in focus, how can it be refined?
4. What solution adaptations are solution users making and why? Were they by choice, by accident, or due to constraints? How can you learn from these adaptations to refine the solution?

Checkpoint

Organization implements solution as intended at least once before proceeding to Phase 3.

☐ Planning ☐ Execution

Principle: **Outcomes**

Solutions generate evidence of improving outcomes for students and their teachers.

Planning and execution activities

- ☐ Analyze at least one preliminary indicator of a short-term or long-term outcome to show that the solution implemented *might* achieve desired short-term or long-term outcomes, such as:
  - ☐ Student interest in math or writing
  - ☐ Student enjoyment, mindsets, and engagement
  - ☐ Student short-term improvement in math or writing knowledge or skills
- ☐ Identify, develop, or select measures with input from the community in focus.
- ☐ Describe the research methods you will use to conduct the implementation study.
- ☐ Define the planned number of solution users and non-users (if you are using a comparison group). Please review the **Sample Size Guidance** for more information on the recommended sample size for the study.

Notes

Organizations and research partners should collaborate and partner with community members to plan and execute all activities.

Reflection questions

1. What preliminary indicators of short-term or long-term outcomes are important to community collaborators?
2. What preliminary indicator can you measure that is quick, low-burden, and low cost?
3. If the solution, when successfully implemented, does not show early indicators of improving the desired outcomes, can you improve it? Why might the solution not lead to the desired outcomes?
4. How can you work with collaborators to ensure research methods are culturally appropriate for the community in focus? Are there opportunities to pilot data collection instruments with the community in focus before conducting the evaluation?

☐ Planning ☐ Execution

Principle: **Scalability**

Solutions can be expanded, replicated, and adapted to improve outcomes for more students.

Planning and execution activities

- ☐ Describe how users in the community in focus overcome practical implementation challenges.
- ☐ Provide rough estimates of the costs of implementing the solution in the community in focus.
- ☐ Document the observed implementation facilitators and barriers and the likelihood that similar facilitators and barriers will arise in a wider context.

Notes

Organizations and research partners should collaborate and partner with community members to plan and execute all activities.

Reflection questions

1. Is the estimated cost of the solution a barrier to adoption?
2. Have solution users adapted the solution in ways that would make it easier to expand to or be more applicable for new contexts?

☐ Planning ☐ Execution

Principle: Knowledge Sharing

Presentation of research findings is easy to understand and is shared with others including the community in focus.

Planning and execution activities

- ☐ Co-interpret study findings with collaborators before they are finalized and shared.
- ☐ Share findings in accessible ways with the community in focus. Include key takeaways from Phase 2 and ways that you will use the findings to refine the solution.

Notes

Organizations and research partners should collaborate and partner with community members to plan and execute all activities.

Reflection questions

1. How can you engage the community in focus in co-interpreting findings and determining next steps?
2. Are there differences between your interpretation of key findings and collaborators' interpretations?
3. How can you share findings that are actionable, easy to understand, and relevant for the community in focus?

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In addition, we also consulted the following resources and standards to inform the development of this checklist:

- Loper, A., Woo, B., & Metz, A. (2021). **Equity is fundamental to implementation science**. *Stanford Social Innovation Review*, *19*(3), A3–A5.
- Regional Educational Laboratory Midwest at American Institutes for Research. (2018). **Aligning evidence-based clearinghouses with the ESSA tiers of evidence**.
- Richman, S., Maxwell, N., Needels, K., & Anderson, M. A. (2020). **Scaling Checklists: Assessing Your Level of Evidence and Readiness (SCALER). A guide for practitioners** (Final report submitted to the Corporation for National and Community Service). Mathematica.
- U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, What Works Clearinghouse. **(Click here to reference the WWC Handbook** and **click here to reference Common Guidelines for Education Research and Development**).
- Woodson, T. (2020). **Using a Culturally Responsive and Equitable Evaluation Approach to Guide Research and Evaluation**. Mathematica.

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