Field Study Starter Toolkit:

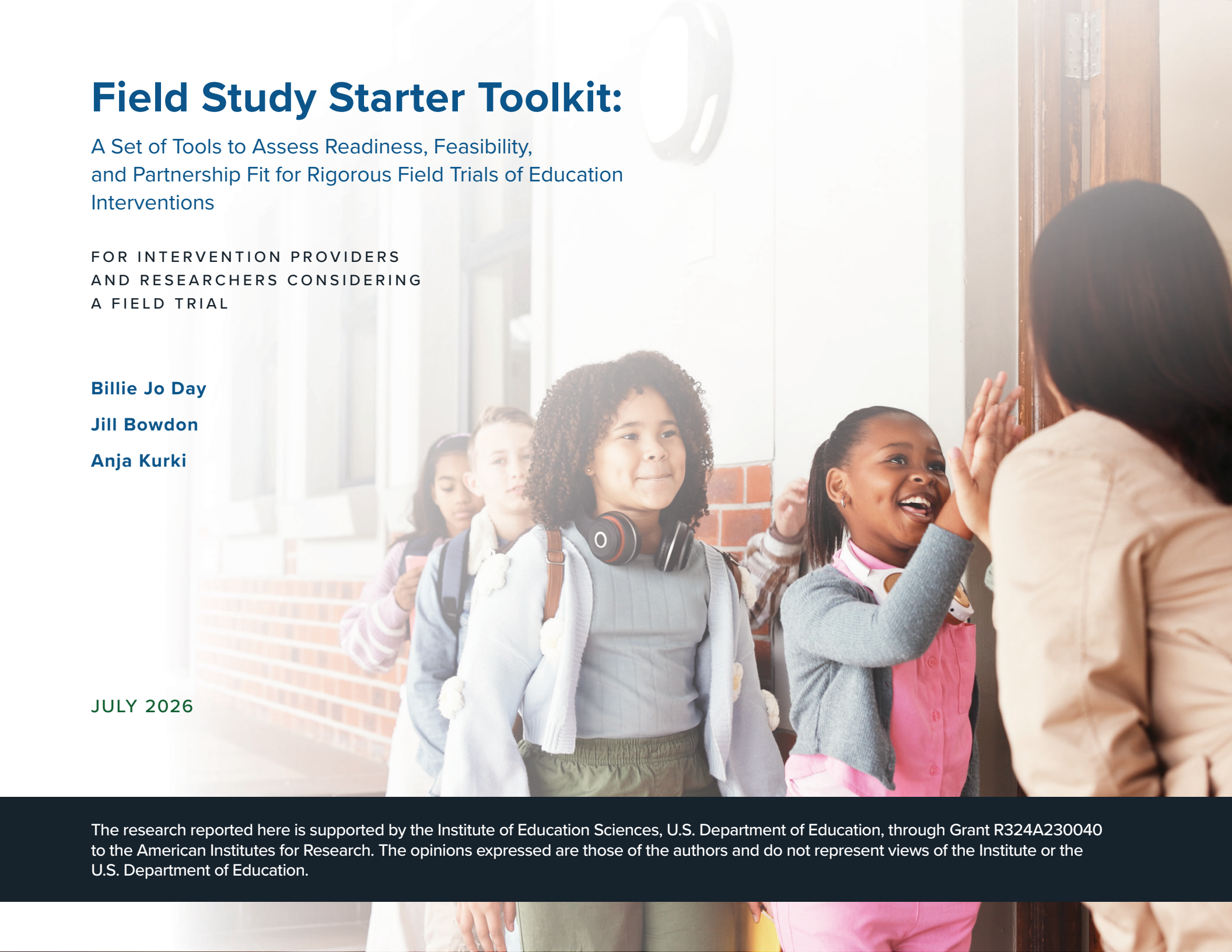
A Set of Tools to Assess Readiness, Feasibility, and Partnership Fit for Rigorous Field Trials of Education Interventions

FOR INTERVENTION PROVIDERS
AND RESEARCHERS CONSIDERING
A FIELD TRIAL

Billie Jo Day

Jill Bowdon

Anja Kurki



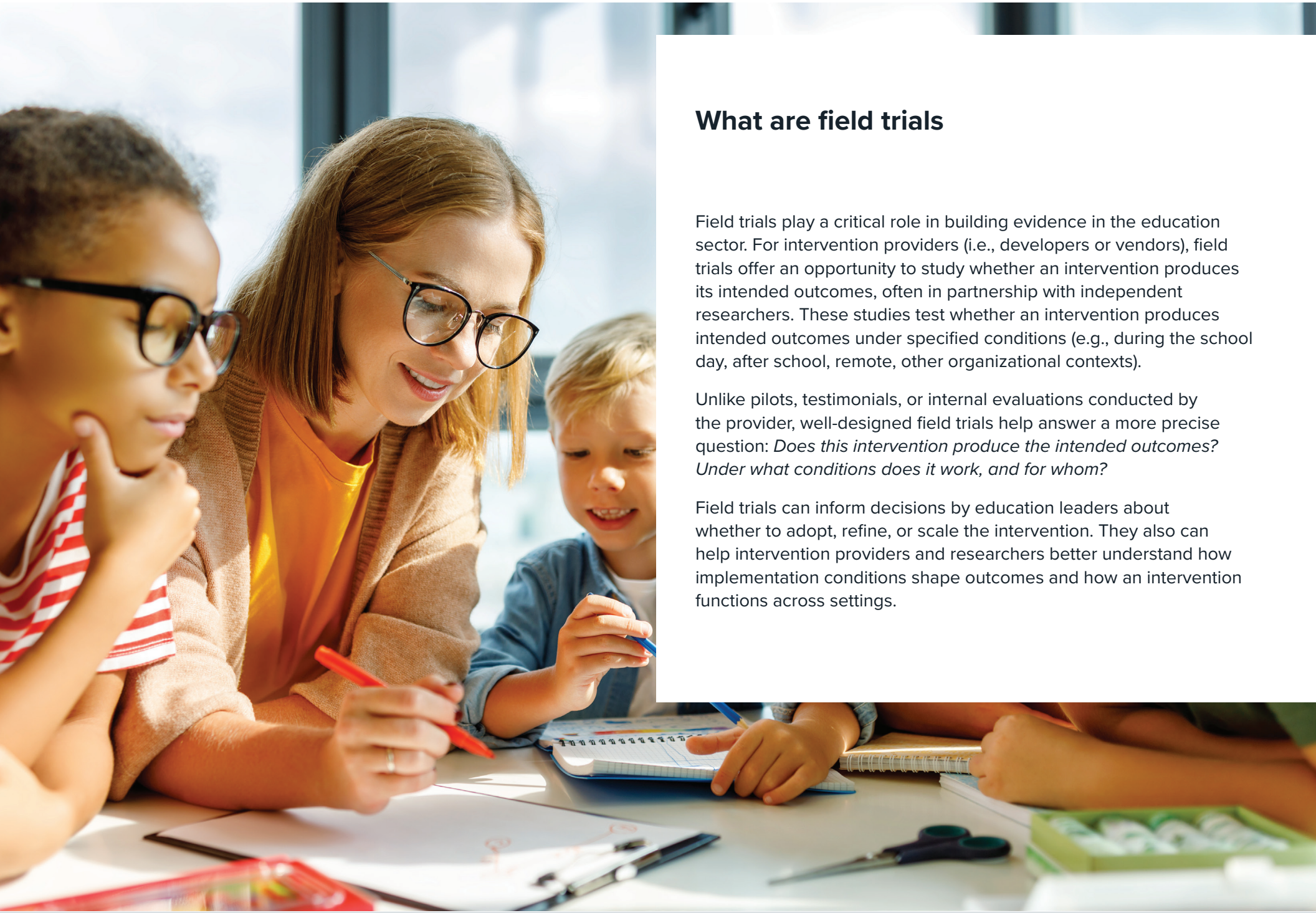
JULY 2026

The research reported here is supported by the Institute of Education Sciences, U.S. Department of Education, through Grant R324A230040 to the American Institutes for Research. The opinions expressed are those of the authors and do not represent views of the Institute or the U.S. Department of Education.

About This Toolkit

Randomized controlled field trials (e.g., efficacy or effectiveness studies) generate rigorous evidence about whether an education intervention (e.g., intervention, program, curriculum, practice) produces intended outcomes in typical education settings. Field trials are most challenging when interventions are not clearly defined, implementation demands are unrealistic, or partner expectations are misaligned. This toolkit is designed to help intervention providers and research partners support decision making about whether to proceed with a field trial. The toolkit includes a sequenced set of tools that intervention providers and researchers can use to assess readiness, examine implementation feasibility and fit, and clarify roles and expectations for conducting a field trial. Partners should use this toolkit prior to launching the study so that the implementation of the intervention takes place with fidelity and positions the study to produce meaningful, interpretable findings.

Table of Contents



What are field trials

Field trials play a critical role in building evidence in the education sector. For intervention providers (i.e., developers or vendors), field trials offer an opportunity to study whether an intervention produces its intended outcomes, often in partnership with independent researchers. These studies test whether an intervention produces intended outcomes under specified conditions (e.g., during the school day, after school, remote, other organizational contexts).

Unlike pilots, testimonials, or internal evaluations conducted by the provider, well-designed field trials help answer a more precise question: *Does this intervention produce the intended outcomes? Under what conditions does it work, and for whom?*

Field trials can inform decisions by education leaders about whether to adopt, refine, or scale the intervention. They also can help intervention providers and researchers better understand how implementation conditions shape outcomes and how an intervention functions across settings.

Why preparation matters

Although field trials can generate valuable evidence, they are also challenging to carry out well. If the intervention is not clearly specified, implementation expectations are unrealistic, or partner expectations are not aligned on roles and responsibilities, study findings may be difficult to interpret. In these cases, results may reflect variation in implementation or study conditions, rather than the intervention's potential impact.

For these reasons, deciding whether and how to engage in a field trial is a complex process. It requires careful reflection before a study begins so that partners are clear about the intervention, realistic about implementation under typical conditions, and aligned on how the work will proceed.

Purpose of This Toolkit

The Field Trial Starter Toolkit is designed to support structured decision making before a field trial begins. It helps intervention providers and researchers

- assess whether a field trial is appropriate at this time;
- evaluate implementation feasibility and fit under typical conditions; and
- align expectations, roles, and responsibilities before a study begins.

In doing so, the toolkit supports informed decisions about whether to proceed with a field trial, delay it, redesign key aspects of the intervention or implementation model, or sequence development work differently before launching a study.

The toolkit is intended to help partners assess readiness, strengthen collaboration, and plan for high quality implementation and evaluation integrity. By surfacing key assumptions, constraints, and decisions early, it helps ensure that studies are launched at an appropriate time so that findings are meaningful and actionable.

Although examples in the toolkit focus on classroom-based interventions, the tools are intended to be broadly applicable across a wide range of education contexts, including out-of-school settings, different user groups, and nonclassroom environments.

What is included in the toolkit

This toolkit includes three tools that build on one another. Together, they are intended to support stronger preparation for rigorous field trials and more interpretable study findings. Most intervention providers and researchers will benefit from completing them in order, but they also may be used selectively depending on readiness.

Partners are encouraged to review the glossary (see Appendix A) before using the tools to ensure consistent interpretation of key terms.

This toolkit supports readiness assessment and planning. It does not serve as a legal agreement, guarantee that a field trial should proceed or succeed, or replace required processes such as study design, IRB review, or memoranda of understanding (MOUs).

TOOL 1

Readiness for rigorous field trials

This tool assesses whether the intervention is sufficiently defined, supported by initial evidence, and ready for rigorous evaluation. It focuses on intervention clarity, theory of change, evidence base, and organizational readiness.

Primary question: Is this intervention ready for a field trial, and does a field trial make sense as a next step?

This tool provides

- a decision to proceed with a field trial, proceed with conditions, or pause and develop the intervention or its implementation model further; and
- identification of key risks or constraints that would affect study design or interpretation of findings.

TOOL 2

Implementation feasibility and fit

This tool examines whether the intervention's implementation requirements, including staffing, time, dosage, training, and cost, are realistic and achievable in typical implementation sites. It focuses on alignment between the intervention model and the realities of education settings.

Primary question: Can the intervention be implemented as intended under typical conditions in education settings?

This tool provides

- a clearer understanding of whether implementation demands are feasible across settings;
- identification of conditions required for successful implementation; and
- documentation of potential barriers that may affect study execution or interpretation.

TOOL 3

Partnership planning for field trials

This tool supports alignment between intervention providers and research partners on roles, responsibilities, communication, data use, and decision making. It is designed to help partners prepare for field-based evaluation by clarifying expectations and identifying key areas for coordination.

Primary question: How will partners work together to support a rigorous, well-implemented, and interpretable field trial?

This tool provides

- aligned expectations across partners;
- clear roles, responsibilities, and communication structures; and
- reduced risk of misunderstandings during the study.

Expected outputs

Depending on how far the intervention provider proceeds, this toolkit produces

- a documented decision about whether a field trial is an appropriate next step;
- assessment of whether the intervention can be implemented as intended under realistic conditions;
- aligned expectations and structures that support collaborative execution of the study and high-quality implementation of the intervention and protect the integrity of the study findings.

Together, these tools are intended to support more rigorous studies, clearer interpretation of findings, and more productive research partnerships.

How to Use This Toolkit

This toolkit may be used in different ways:

- By intervention providers independently, as a structured guide to assess readiness and identify areas for further development
- Jointly with researchers, as part of early partnering conversations to conduct a field trial
- By researchers, as a resource to share with intervention providers considering a field trial

The tools are designed to be used sequentially but also may be used selectively based on readiness and need. Users may complete all three tools or focus on the ones that are most relevant to their current stage of development. Thoughtful pacing is encouraged.

Throughout this toolkit, users will encounter interactive reflection questions and opportunities to capture notes. Use the response buttons to answer questions and the notes sections to document thinking. Responses and notes can be saved and revisited in future visits, helping track changes over time.

If the intervention is not yet clearly specified, users may find it helpful to begin with an optional resource, Clarifying Your Intervention for Field Trials, is available in Appendix B, either before or alongside this toolkit.

Completing the tools before launching a study helps ensure that the intervention is clearly specified, implementation expectations are realistic, and partners are aligned. These are essential conditions for producing meaningful, interpretable findings.

Tool 1 of 3:
Readiness for Rigorous Field Trials

Why this tool matters

Field trials are most informative when an intervention is clearly specified, supported by preliminary evidence, and stable enough to be implemented with fidelity. Use the *Readiness for Rigorous Field Trials* tool to assess whether the intervention is the appropriate next step.

Primary question: Is this intervention ready for a field trial, and does a field trial make sense as a next step?

Who should complete this

Intervention provider staff responsible for intervention development, research, or partnerships, often with input from a research partner as appropriate.

What you'll have at the end

- A documented decision to proceed, proceed with conditions, or pause/redesign
- A clearer understanding of key gaps, risks, or constraints that may affect a rigorous field trial

How this connects to the rest of the toolkit

If this tool suggests moving forward, Tool 2 will assess whether the intervention can be implemented under typical conditions. If it suggests pausing, the insights are to clarify or strengthen the intervention before future study.

TOOL
1

Readiness for Rigorous Field Trials

Directions:

Review each item and rate the extent to which it is currently in place:

- NOT YET IN PLACE
- PARTIALLY IN PLACE
- FULLY IN PLACE

Base ratings on available documentation, evidence, and shared understanding, not assumptions or isolated examples. Rate each item individually.

Not all items carry equal weight. Some are foundational for launching a field trial; others can be strengthened during planning. Items rated not yet in place, especially foundational ones, may indicate the need to delay or refine the study.

Section 1. Defining the intervention

A field trial requires a clearly defined and stable intervention.

	NOT YET IN PLACE	PARTIALLY IN PLACE	FULLY IN PLACE
The intervention provider has a defined intervention ready to be tested that:			
Has a documented implementation model (that is, a clear description of how the intervention is to be delivered)			
Has a clear plan for maintaining a stable version of the intervention during the study period (i.e., major changes are limited, planned, and documented)[1]			
The intervention provider has a documented theory of change that is understandable to external partners and specifies:			
The core problem that the intervention is designed to address			
The mechanisms through which the intervention is expected to affect practice or outcomes			
The expected outcomes and expected direction of change (this does not require precise estimates of effect size)			
The evidence supporting each link in the theory of change (e.g., prior studies, evaluations, relevant research)[2]			
The intervention provider has a clear implementation model that specifies how the intervention is delivered across settings and users:			
The critical components that must be delivered for the intervention to produce intended outcomes			
The adaptable components that can be modified without undermining effectiveness			
The rationale for how each critical component contributes to the intended outcomes			

[1]***Note***. *Major changes include any modifications that could affect implementation, user experience, or expected outcomes (e.g., adding new features, revising core instructional practices, changing delivery expectations)*
[2]***Note.*** *Evidence may include research on related interventions or contexts that support the proposed theory of change; direct evidence on the specific intervention is not required for this to be considered in place.*

The intervention provider can articulate where and how the intervention fits within existing practices and what it adds[3], including the following:	NOT YET IN PLACE	PARTIALLY IN PLACE	FULLY IN PLACE
A clear description of typical practices in the absence of the intervention (i.e., business-as-usual)			
How the intervention differs from or builds on those typical practices			
The specific needs, contexts, or user groups for which the intervention is intended (e.g., settings lacking X, seeking to strengthen Y)			
The features of the intervention that are necessary to produce the intended outcomes (e.g., increased instructional time, different grouping structures, use of specific materials or routines)			

[3]***Note.*** *This information complements the theory of change by clarifying where, for whom, and under what conditions the intervention is expected to add value beyond existing practice.*

Pause and reflect: Consider whether your responses in this section, especially related to how clearly defined and stable the intervention is, would limit your ability to design or interpret a field trial. If key elements (e.g., components, theory of change, stable version) are not yet in place, you may need to clarify and document the intervention before proceeding.

Notes:

Section 2. Evidence supporting the intervention

Assess whether there is preliminary evidence that the intervention can be implemented and shows promise in settings that resemble intended use. This evidence does not need to be causal, but it should be sufficient to inform whether a field trial is appropriate.

	NOT YET IN PLACE	PARTIALLY IN PLACE	FULLY IN PLACE
The intervention provider has evidence from real-world implementation where the intervention:			
Was associated with improved outcomes for educators and/or students (e.g., findings from prior studies, evaluations, or correlational analyses; or, for newer interventions, user feedback indicating improvements in engagement, practice, or perceived outcomes)			
The intervention provider has assessed:			
How prior implementation conditions compare to intended implementation settings (e.g., whether prior implementation occurred under conditions that are representative of typical sites or under more favorable or resource-intensive conditions)			
This includes considering whether prior implementation:			
Reflects typical practice in intended settings (e.g., staffing, time, resources, constraints)			
Occurred under more favorable or resource-intensive conditions (e.g., additional supports, specialized staff, intensive coaching, atypical settings)[4]			

[4]***Note.*** *Prior implementation under more favorable or resource-intensive conditions does not preclude a field trial. However, it may require careful consideration of how results will generalize to typical use and whether study design or implementation supports should be adjusted accordingly.*

Pause and reflect: Consider whether your responses in this section would limit your ability to design or interpret a field trial, particularly whether existing evidence is sufficient and reflects the settings in which the intervention is intended to be used. If evidence is limited or not reflective of intended settings, consider gathering additional evidence (e.g., through pilot work or analysis) or refining expectations about where and how the intervention can be meaningfully studied.

Notes:

Section 3. User learning and implementation readiness

A field trial requires that users can implement the intervention with sufficient competence. When implementation requires extended onboarding or specialized training, a field trial may capture early learning rather than stable implementation. In these cases, findings may be difficult to interpret.

	NOT YET IN PLACE	PARTIALLY IN PLACE	FULLY IN PLACE
The intervention provider has clearly defined:			
The level of training and support required for typical users to implement the intervention (e.g., whether the intervention can be implemented with standard training and materials, or requires specialized training, certification, or ongoing provider support)			
Has considered how these requirements affect feasibility in intended settings			
The intervention provider has clearly defined:			
The stage(s) of implementation that the field trial is expected to capture (e.g., early-stage implementation, mature implementation, a mix of both)[5]			
Has considered how this aligns with the purpose of the study and the interpretation of findings			

[5]***Note.*** *These conditions are not inherently problematic, but they should be explicit and aligned with the purpose of the study and the interpretation of findings.*

Pause and reflect: Consider whether your responses in this section would limit your ability to design or interpret a field trial, particularly related to the level of training, user learning, or implementation conditions required. If implementation depends on extended learning or specialized conditions, strengthen training supports or reconsider whether a field trial would adequately capture intended use.

Notes:

Section 4. Organizational readiness for rigorous evidence

Field trials are designed to produce rigorous, independent evidence. This means there is the possibility of null findings (e.g., no measurable effect), mixed findings (e.g., some positive effects, some negative effects), or negative findings (e.g., outcomes worse than comparison conditions). Organizations must be prepared to engage with results transparently and interpret findings in relation to study conditions and implementation. When clear expectations are lacking, internal pressures, such as expectations for positive results, may emerge that interrupt execution of the field trial.

	NOT YET IN PLACE	PARTIALLY IN PLACE	FULLY IN PLACE
The intervention provider has considered implications of study findings, including the following:			
The range of possible study findings, including null, mixed, or implementation-dependent results			
How these results would be interpreted and used to inform decision making, improvement, or future research			
How to engage with and communicate study findings, including null, mixed, or negative results, in ways that are accurate, transparent, and aligned with study conditions and context			
The intervention provider has established the internal capacity and alignment needed to support the study and its findings, including the following:			
Designated staff responsible for engaging in conversations related to study design, interpretation, and dissemination			
Alignment among internal stakeholders on the purpose, process, and expectations of the field trial			

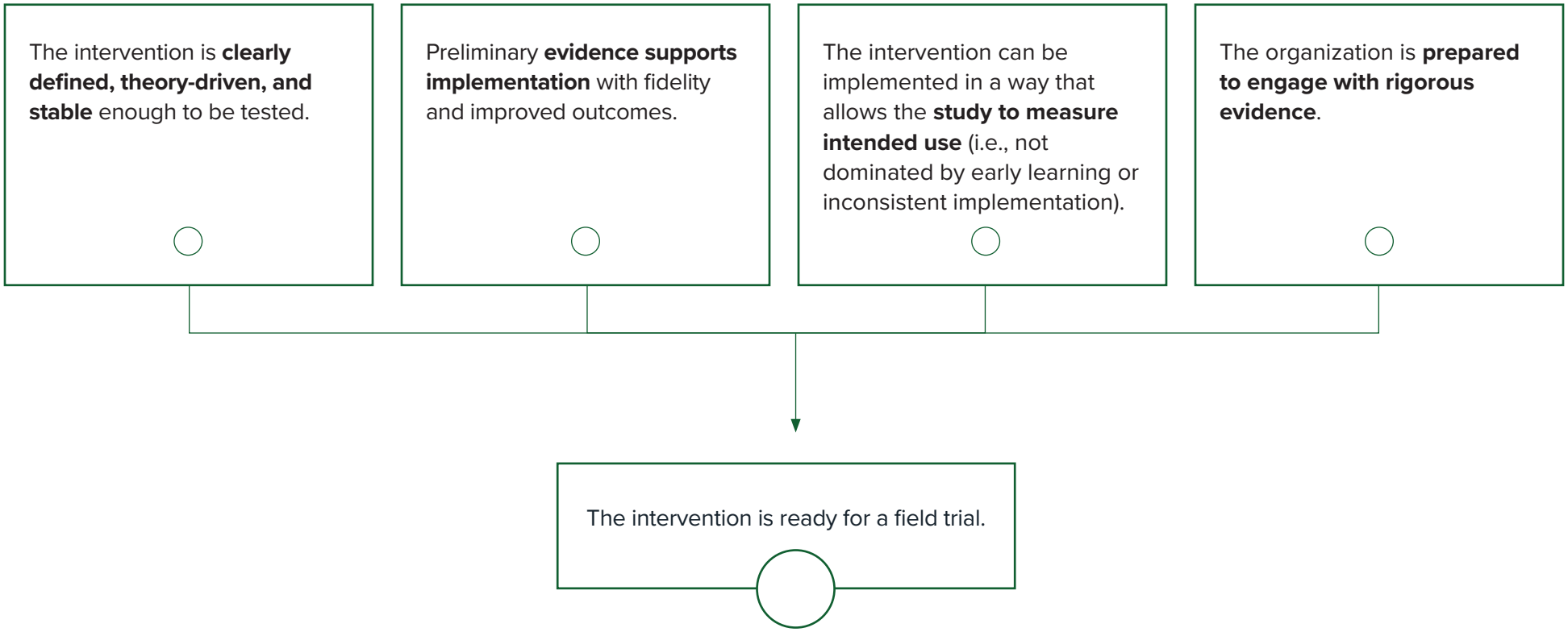
Pause and reflect: Consider whether your responses in this section would limit your ability to design or interpret a field trial, particularly related to organizational readiness, internal alignment, and expectations. If organizational readiness is limited, align internal stakeholders and expectations before engaging in a field trial.

Notes:

Decision:

Readiness for a field trial

Review responses across all sections and determine whether the following conditions are met:



Based on this assessment:

The intervention is ready for a field trial.	**PROCEED**		*Next step:* Use **Tool 2** to assess feasibility and fit under typical conditions.
The intervention appears promising but requires targeted refinements.	**PROCEED** WITH CONDITIONS		*Next step:* **Identify and address** specific gaps that could affect study quality or interpretation.
The intervention is not yet ready for a field trial.	**PAUSE / REDESIGN**		*Next step:* **Focus on intervention clarification, refinement**, or additional evidence building. If needed, use Clarifying Your Intervention for Field Trials (Optional Resource) in Appendix B.

Notes:

Tool 2 of 3:
Implementation Feasibility and Fit

Why this tool matters

Even when an intervention is ready for evaluation, a field trial will only produce meaningful evidence if the intervention can be implemented as intended under typical conditions. This tool helps intervention providers and research partners assess whether the implementation model is feasible in intended settings.

Primary question: Can the intervention be implemented as intended under typical conditions in education settings?

Who should complete this

Intervention provider staff responsible for implementation, research, or partnerships, with input from a research partner and, where possible, individuals familiar with conditions in intended implementation settings.

What you'll have at the end

- A determination of whether implementation is feasible, feasible with conditions, or not feasible as designed
- A clearer understanding of the barriers, constraints, or conditions that may affect implementation in a field trial

How this connects to the rest of the toolkit

Tool 2 builds on the readiness decision in Tool 1, Readiness for Rigorous Field Trials, by examining whether the intervention can be implemented under realistic conditions. If feasibility concerns are identified, partners may refine the implementation model or adjust study expectations before moving forward. If feasibility is established, Tool 3, Partnership Planning for Field Trials (Annotated Template), supports alignment on roles, responsibilities, and expectations for conducting the field trial.

TOOL 2

Implementation Feasibility and Fit

Directions:

Review each item and rate the extent to which it is currently in place:

- NOT YET IN PLACE
- PARTIALLY IN PLACE
- FULLY IN PLACE

Base ratings on available documentation, evidence, and shared understanding, not assumptions or isolated examples. Rate each item individually.

Not all items carry equal weight. Some are foundational for launching a field trial; others can be strengthened during planning. Items rated not yet in place, especially foundational ones, may indicate the need to delay or refine the study.

Section 1. Implementation model and feasibility

Building on Tool 1, this section assesses whether the implementation model can be carried out under typical conditions. This includes describing what the intervention adds or changes beyond what is typically done in intended settings, as these distinctions define what is being tested in a field trial. When key aspects of implementation, such as who delivers the intervention, how often it is used, and what supports are required, are not clearly defined, it is difficult to determine whether implementation expectations are realistic or achievable. Lack of clarity at this stage can lead to misaligned expectations and challenges during implementation.

This section moves from defining the implementation model to assessing whether it has been implemented successfully and can be sustained under typical conditions.

	NOT YET IN PLACE	PARTIALLY IN PLACE	FULLY IN PLACE
The intervention provider has clearly specified the implementation model, including the following:			
Who delivers the intervention (e.g., teacher, interventionist, coach)			
When and how often the intervention is delivered (e.g., schedule, duration, dosage)			
Required materials			
Training and ongoing supports provided to those delivering the intervention (e.g., professional learning, coaching, guidance, technical assistance)			
The critical components that must be delivered for the intervention to produce intended outcomes			
The adaptable components that can be modified without undermining effectiveness			
The intervention provider has identified how the intervention adds or changes relative to typical practice and whether those expectations are feasible, including the following:			
Whether the intervention, as designed, can be implemented within existing staffing, schedules, and resources			
Whether these added or different expectations (e.g., increased instructional time, different grouping structures, new materials or routines) require changes to typical structures			

	NOT YET IN PLACE	PARTIALLY IN PLACE	FULLY IN PLACE
The intervention provider has evidence from implementation in typical or similar conditions showing that the intervention:			
Can be delivered with fidelity consistent with the implementation model			
The intervention provider can identify the conditions that supported implementation, including the following:			
Expected level of use or engagement (e.g., time, sessions, interactions, feature usage)			
How time was structured for implementation, including any training and supports			
Who delivered or facilitated the intervention (if applicable)			
Key features of the implementation context (e.g., setting, staffing, resources)			
The intervention provider has evaluated whether the intervention fits within typical operating conditions, including the following:			
Scheduling and time constraints			
Staffing capacity and potential staff turnover			
Policy and compliance requirements (e.g., data privacy requirements)			
Technology and infrastructure access			
Competing organizational priorities			
The intervention provider has specified the expected dosage, including the following:			
Time, frequency, or number of sessions			
Required interactions, activities, or engagement with critical components			
A rationale linking dosage to expected outcomes			

	NOT YET IN PLACE	PARTIALLY IN PLACE	FULLY IN PLACE
The intervention provider has evidence that the expected dosage is achievable, including the following:			
Expected level of use or engagement (e.g., time, sessions, interactions, feature usage)			
How time was structured for implementation, including any training and supports			
Who delivered or facilitated the intervention (if applicable)			
Key features of the implementation context (e.g., setting, staffing, resources)			
The intervention provider has evaluated whether the intervention fits within typical operating conditions, including the following:			
Alignment with typical scheduling and time allocation			
Feasible staffing models and roles			
Access to required materials, technology, or infrastructure			
Adequate training and implementation supports			
Competing organizational priorities			

Pause and reflect: Consider whether your responses in this section would limit your ability to design or interpret a field trial. If the implementation model is not clearly specified, you may need to refine delivery expectations (e.g., staffing, scheduling, dosage, supports) before proceeding.

Notes:

Section 2. Resource requirements and sustainability

A field trial should test an intervention that implementation sites (e.g., districts, schools) could realistically adopt and sustain beyond the study period. Assess whether districts or schools can sustain the full set of resources required for implementation after study-provided resources fade. Consider resources such as staffing, time, training, and materials. Beyond the study itself, these resource expectations reflect the intervention's broader viability. Districts and schools often consider up front whether they could continue using the intervention under normal operating conditions. When resource requirements are unclear or exceed what typical sites can support, participation may be limited, and long-term adoption is less likely. Being explicit about these expectations helps ensure that a field trial tests a model that is both implementable and viable in practice, not one that depends on conditions unlikely to exist.

	NOT YET IN PLACE	PARTIALLY IN PLACE	FULLY IN PLACE
The intervention provider has identified the full resource requirements for the intervention, including the following:			
Materials needed to implement the intervention			
The training required for those delivering the intervention to implement it as intended			
Coaching needed to support the strong fidelity of implementation of the intervention			
Staff time needed to prepare for and deliver the intervention with fidelity			
Ongoing support to ensure that implementation is strong			
The intervention provider has assessed whether the intervention is:			
Affordable/sustainable for typical implementation sites; or			
Affordable/sustainable for well-resourced implementation sites only[6]			

[6]***Note.*** *Sites are less likely to participate in or sustain an intervention that depends on resources they cannot realistically maintain.*

Pause and reflect: Consider whether your responses in this section would limit your ability to design or interpret a field trial. If evidence reflects atypical levels of staffing, time, or support, clarify whether the study is testing a scalable model or a higher-resource version of the intervention.

Notes:

Section 3. User learning and implementation capacity

A field trial should capture implementation that reasonably reflects intended use. This includes aligning the intervention's training and learning demands with the time, resources, and support conditions typical of implementation sites. When interventions require extended onboarding or prolonged learning periods before competent implementation is achieved, implementation during a field trial may reflect early-stage use rather than mature implementation.

	NOT YET IN PLACE	PARTIALLY IN PLACE	FULLY IN PLACE
The intervention provider can specify:			
The time required for users to reach competent implementation			
When the intervention is expected to become consistent and high quality across sites (e.g., early, mid, or late in the study period)			
The intervention provider has assessed whether the study will capture:			
Implementation after users reach competent implementation; or			
Implementation that mixes early-stage and mature implementation[7]			

[7]***Note.*** *Early-stage implementation is not necessarily inappropriate, but it should be explicit and aligned with the purpose of the study and the interpretation of findings.*

Pause and reflect: Consider whether your responses in this section would limit your ability to design or interpret a field trial. If the study is likely to capture mostly early learning, consider whether the design and interpretation plan adequately account for that.

Notes:

Section 4. Sustainability under turnover

Implementation must be maintainable over time in typical settings and with routine staff turnover. Determine whether the intervention can be sustained as implementers leave or transition, and whether new staff can be trained efficiently using resources commonly available in these settings. When implementation depends on stable staffing or intensive, ongoing support from the intervention provider, sites may struggle to maintain the intervention over time.

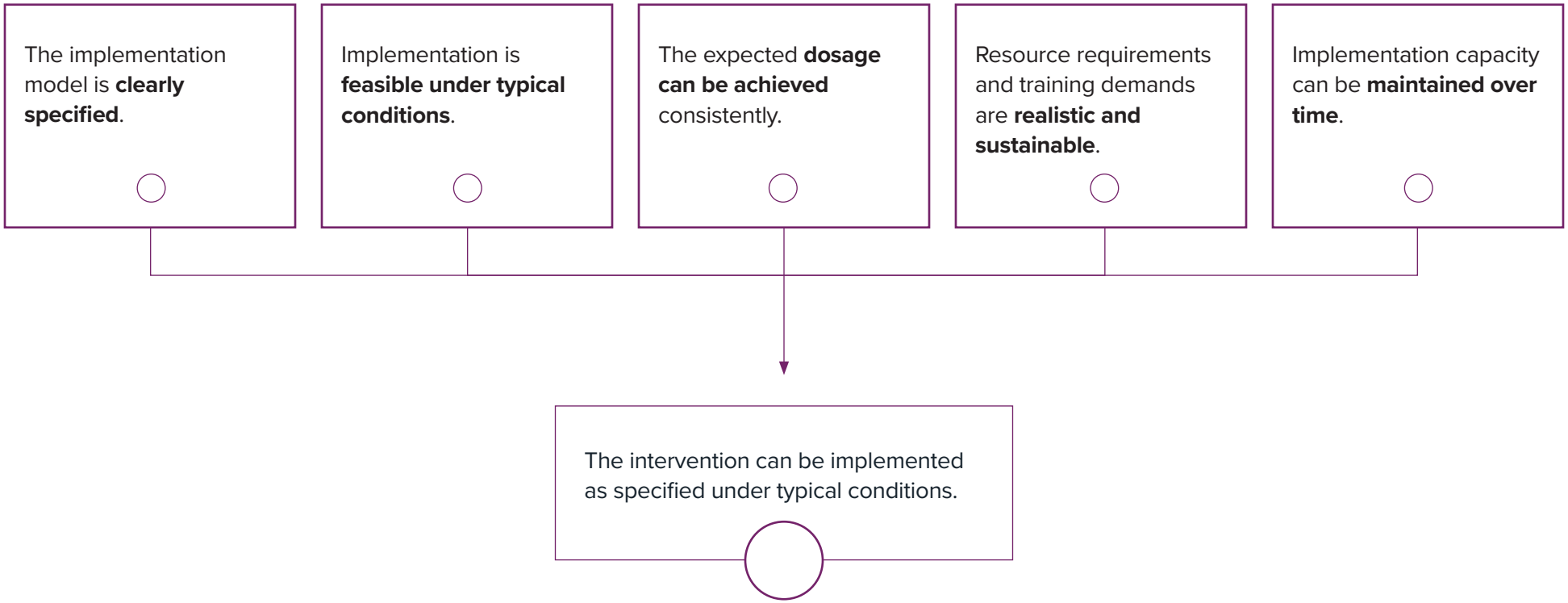
	NOT YET IN PLACE	PARTIALLY IN PLACE	FULLY IN PLACE
The intervention provider has planned for:			
Routine implementer turnover			
A clear process for training new staff			
A realistic time frame and level of effort required for new staff to reach competent implementation			
If ongoing support is required, the intervention provider can specify:			
The type and frequency of training and ongoing support			
Who would provide training for new staff over time			
The associated cost and resource requirements			
The intervention provider can assess whether:			
Implementation can be maintained without ongoing provider involvement; or			
Implementation depends on continued external support			

Pause and reflect: Consider whether your responses in this section would limit your ability to design or interpret a field trial. If implementation depends heavily on stable staffing or ongoing provider support, clarify whether that reflects realistic use conditions.

Notes:

Decision: Implementation feasibility and fit

Review responses across all sections and determine whether the following conditions are met:



Based on this assessment:

The intervention can be implemented as specified under typical conditions.	**FEASIBLE**	*Next step:* Proceed to **Tool 3** for partnership alignment.
The intervention can be implemented with targeted adjustments	**FEASIBLE** WITH CONDITIONS	*Next step:* **Identify and address all feasibility constraints** most likely to affect implementation or interpretation.
Implementation cannot be implemented realistically under typical conditions.	**NOT FEASIBLE AS DESIGNED**	*Next step:* **Revise the implementation model** before proceeding.

Notes:

Tool 3 of 3:
Partnership Planning for Field Trials

Why this tool matters

Field trials are collaborative by nature, requiring close coordination between intervention providers, researchers, and implementation sites. Even when an intervention is ready and implementation is feasible, studies can encounter challenges if roles, responsibilities, and expectations are not clearly aligned at the outset. Misalignment in implementation expectations, decision making, or interpretation of findings can lead to confusion, delays, or threats to study integrity.

This tool, Partnership Planning for Field Trials, includes an annotated template designed to help intervention providers and research partners clarify expectations before a field trial begins. It is intended to support early alignment and prepare partners for formal agreements (e.g., memoranda of understanding [MOUs], memoranda of agreement [MOAs]); it is not a legal agreement and does not replace institutional or legal requirements.

Primary question: How will partners work together to support a rigorous, well-implemented, and interpretable field trial?

Who should complete this

Intervention providers and research partners, with input from implementation sites and legal or institutional representatives as appropriate. Implementation sites are not expected to use this tool directly; rather, this tool helps providers and researchers align expectations for working with sites.

What you'll have at the end

- A shared understanding of roles, responsibilities, and decision-making processes
- Clear expectations for communication, data use, reporting, and dispute resolution
- A structured set of inputs to support development of a formal agreement (e.g., MOU, MOA)
- Reduced risk of misunderstandings or conflicts during the study

How this connects to the rest of the toolkit

This tool builds on the decisions from Tool 1, Readiness for a Field Trial, and Tool 2, Implementation Feasibility and Fit. Once partners agree that a field trial is appropriate and feasible, this tool supports alignment on how the work will be carried out and how partners will coordinate during the study.

TOOL
3

Partnership Planning for Field Trials

Directions:

Use this template to guide early discussions between intervention providers and research partners. Review each section together, adapt it as needed for the participating organizations and study context, and document agreed-upon expectations. The resulting content can then be used to inform formal agreements and partnership documents.

This tool is intended to surface key assumptions, responsibilities, and decision points before the field trial begins. It supports planning and alignment; it does not replace legal review, data sharing agreements, IRB requirements, or other institutional processes.

Section 1. Partners and purpose of the partnership

Directions:

Clearly identify the organizations or entities entering into this agreement. State the name of the study, funder of the study, and describe the shared purpose of the partnership, including the problem or opportunity that brings the partners together, the overarching goals they intend to pursue, and the shared expectations or guiding principles that will shape how the work is conducted and interpreted. This section also should specify the expected duration of the study and the period during which the partnership will be in effect.

Notes:

Example

This partnership is between the research partner, intervention provider, and implementation sites for the purpose of conducting the [Full Study Title] ("the Study"). This partnership is funded by [type of funding, funder, amount funded]. The purpose of this partnership is to conduct a field trial to examine whether the intervention produces intended outcomes when implemented as intended [under specified conditions].

The study is expected to occur from [Month/Year] through [Month/Year], and this agreement will remain in effect for the duration of the study unless otherwise modified by mutual written agreement or if the funder cancels funding for the study.

In pursuing this work, all parties acknowledge and agree that

- *the primary goal of the field trial is to generate rigorous and objective evidence;*
- *the field trial will be conducted following an agreed-on study design, and data are analyzed based on an agreed-upon analysis plan;*
- *impact findings will be reported regardless of whether they indicate positive, negative, null, or mixed outcomes;*
- *implementation data will be collected and used to document how the intervention was used across implementation sites, including whether it was implemented as intended;*
- *impact estimates and implementation data will be analyzed separately and interpreted together;*
- *impact findings will be interpreted alongside implementation evidence to understand whether results reflect the intervention itself or the conditions under which it was used (e.g., level of use, variation across implementation sites, differences from intended implementation); and*
- *implementation challenges are expected and will be documented transparently.*

Section 2. Roles and responsibilities

Directions:

Describe the roles and responsibilities of each partner in this agreement as they relate to the design, support, implementation, and study of a field trial. Clearly defining responsibilities helps establish shared accountability, preserve the integrity of the study, and prevent overlapping or role confusion across partners. Role descriptions should reflect the efficacy focused nature of the work, be proportional to the scope of the partnership, and be sufficient to meet applicable research and reporting requirements without extending partners beyond their intended roles.

Example:

The researcher's partner is expected to

- *prespecify the study design, including research questions, comparison conditions, outcome measures, and analytic methods intended to support strong causal claims under defined conditions;*
- *develop, select, or oversee the development of data collection instruments and protocols that are sensitive to hypothesized mechanisms of impact and appropriate for use in controlled or semi controlled implementation contexts;*
- *systematically monitor implementation for research purposes by reviewing fidelity data (i.e., whether the intervention was implemented as specified), logs, and partner documentation, and by documenting adaptations and deviations from planned implementation as inputs to interpretation, not as implementation management; and*
- *lead analysis and reporting focused on estimating impacts under the specified conditions of the study, and interpreting findings, positive, null, or mixed, in relation to the degree to which critical implementation requirements were met, while clearly distinguishing between efficacy and broader applicability.*

***Note**. The following example template is designed to support planning and alignment among research and provider partners. It is not intended to be used as-is with districts or other implementation sites. Partners should adapt expectations to fit the roles and responsibilities appropriate for each participating organization and the specific study context.*

The intervention provider is expected to

- *clearly articulate intervention design assumptions, and document decision rules related to dosage, grouping, staffing, and instructional routines;*
- *clearly articulate and document the rationale for critical implementation requirements that define the tested version of the intervention (e.g., minimum dosage, group size assumptions, sequencing, training expectations), recognizing that these conditions represent the theory driven version of the intervention being tested;*
- *provide training, materials, and implementation support that are sufficient for implementation sites to implement the intervention as intended (e.g., clear manuals, lesson plans or guidance, structured training aligned to the implementation model);*
- *ensure that training, materials, and supports are usable by typical implementers and can support consistent implementation across implementation sites, including during staff turnover;*
- *provide consistent implementation guidance to potential implementation sites during the study recruitment phase;*
- *ensure that guidance shared with implementation sites aligns with the study protocol;*
- *participate in decisions that may affect implementation fidelity or internal validity;*
- *support transparency about what the intervention can and cannot reasonably require in implementation site contexts;*
- *clearly articulate and document the critical components and their intended use for the intervention to be tested, including components that are required for the study's defined implementation conditions, and share documentation with the research team;*
- *support the study by providing materials, documentation, and training resources necessary to enable partners to implement the prespecified version of the intervention under the study's conditions;*
- *adhere to the defined implementation parameters for the duration of the study and refrain from introducing substantive intervention changes, enhancements, or component modifications that would alter the version of the intervention being tested;*
- *collaborate with implementation sites and research partners to identify and problem-solve implementation challenges as they arise, within the bounds of the defined implementation model and study protocol;*
- *participate in implementation documentation activities relevant to the research (e.g., providing usage data, implementation logs, technical context)—the intervention provider supports implementation but does not manage or direct the research activities; and*
- *engage with the research team in reviewing findings and reports to ensure an accurate description of the intervention, implementation conditions, and context, while respecting the independence of the analysis and interpretation.*

Implementation sites are expected to

- *implement the intervention as specified for the study, including adhering to agreed upon critical components, dosage expectations, scheduling parameters, and participant eligibility criteria that define the tested version of the intervention;*
- *designate appropriate staff and settings for participation and support access to the learning context (e.g., school), and data sources as outlined in the study plan;*
- *facilitate the study consent process with educators and students and support their participation in data collection activities (e.g., assessments, surveys, logs, observations) and promote consistent administration according to established protocols;*
- *communicate implementation challenges, deviations, or contextual changes to the research team in a timely manner to support accurate documentation and interpretation; and*
- *recognize that the purpose of the study is to test the intervention under defined conditions and that implementation requirements during the study may differ from typical practice or future scale up efforts.*

Notes:

Section 3. Shared understanding of implementation requirements

Directions:

Write up the core implementation requirements that define the version of the intervention being tested in this field trial. This section should document the expectations that must be clarified, discussed, and agreed upon prior to launching the field trial to support a valid interpretation of findings. Include both the intended implementation parameters and a shared understanding of how real world constraints and deviations will be handled and documented for research purposes.

Example:

Write up a clear, concise description of the implementation requirements that define the version of the intervention to be tested. Include the following elements when relevant (see the following example). These requirements should be specified in concrete, operational terms (e.g., defined schedules, staffing roles, training hours, materials) so that participating sites can implement the model as intended without additional interpretation.

Include the following, when relevant:

- ***Intended dosage*** *(e.g., minutes per day/week; specify minimum and ideal dosage expectations)*
  - » *Identify minimum viable dosage alongside ideal dosage where possible.*
  - » *Track actual dosage delivered rather than assuming compliance.*
  - » *Revisit expectations if dosage cannot be sustained across implementation sites.*
- ***Group size and student placement criteria*** *(e.g., number of students per group, eligibility criteria, assignment process)*
- ***Staffing expectations and roles*** *(e.g., who delivers the intervention, required qualifications, time allocation)*
- ***Training model associated with the study*** *(e.g., duration, format, required participants, timing relative to implementation)*
  - » *Provide booster or refresher supports as feasible.*
- ***Coaching model associated with the study*** *(e.g., frequency, format, provider, duration)*
  - » *Ensure support adheres to the prespecified model.*
  - » *Maintain stability in coaching assignments when possible.*
  - » *Address early resistance or discomfort (e.g., observation concerns) proactively.*
- ***Materials and technology requirements necessary to implement the intervention as specified*** *(e.g., specific materials, platforms, devices, access requirements)*
- ***Feasibility of critical components*** *within sites' schedules prior to launch*

EXAMPLE:

Grade 3 students receive 30 minutes of small-group instruction (3–5 students) four times per week, delivered by interventionists using the intervention's defined lesson sequence. Staff complete a 6-hour initial training before implementation, followed by biweekly virtual coaching sessions. All lessons are delivered using provider-developed materials and supported by a web-based platform accessible during the school day.

Notes:

Defined implementation guidance and study relevant decisions will be documented in a shared space accessible to all partners.

All parties acknowledge that

- *implementation sites operate within real and sometimes competing constraints (e.g., master schedules, staffing availability, individualized education program requirements);*
- *requirements that cannot reasonably be met across implementation sites will be flagged as risks to study interpretation, not treated as implementation noncompliance; and*
- *deviations from intended implementation may occur and will be documented systematically and treated as data for purposes of analysis and interpretation, not as indicators of failure.*

Partners agree to

- *document what changed, why it changed, and when it changed;*
- *avoid retroactive reinterpretation of requirements; and*
- *discuss implications for internal validity collaboratively.*

Section 4. Coordination and communication

Directions:

Describe how partners will communicate, coordinate, and make decisions throughout the partnership, including the frequency of regular meetings, communication channels, and escalation procedures for issues affecting implementation or study integrity.

Notes:

Example:

The partnership agrees to

- *establish a regular meeting cadence (e.g., weekly, monthly, quarterly, as appropriate to the phase of the study) to support coordination, share updates, and review implementation and study progress;*
- *use agreed upon communication channels between meetings to ensure timely information sharing, documentation, and follow up;*
- *maintain shared coordination structures that may evolve across study phases (e.g., prelaunch, active implementation, data collection, analysis);*
- *identify clear procedures for raising time-sensitive concerns; and*
- *create clear expectations for documentation and follow-up.*

Section 5. Dispute resolution

Directions:

Describe how partners will address and resolve disagreements that arise during the study (e.g., data interpretation, timeline adjustments), including clear escalation steps if issues cannot be resolved at the project level to maintain the integrity of the research process and working relationship.

Notes:

Example:

The partnership agrees to

- *identify the categories of disputes most likely to arise, such as those related to implementation expectations, data use or interpretation, timelines, or changes to study design;*
- *designate points of contact at each organization to serve as the first line of resolution, including individuals responsible for addressing issues, facilitating communication, and coordinating responses; and*
- *establish a clear escalation process, specifying when and how issues move beyond the project team, including escalation to organizational leadership or a neutral third party if resolution is not achieved at the project level.*

Section 6. Data use, reporting, and communication

Directions:

Specify the types of data to be shared, the timing and format of required reporting, and the responsibilities of each partner related to compliance with applicable research, privacy, and reporting requirements. Expectations should be clearly defined, limited to what is necessary for the study, and aligned with the scope of the partnership. Formal data use agreements should be established, as appropriate, to govern the collection, sharing, and use of data across partners.

Notes:

Example:

The partnership agrees that

- *participating partners will provide required study related data to the research partner as specified in the study plan and applicable grant requirements;*
- *data will be collected, shared, and used solely for approved research purposes, in a manner that protects confidentiality and minimizes burden on districts and other implementing partners;*
- *reporting responsibilities related to the field trial will be led by the research partner, in alignment with funder and regulatory requirements; and*
- *formal data use agreements (DUAs) will be established, as needed, to govern data sharing and use. These agreements may be executed between the research partner and the intervention provider, the research partner and implementation sites, and/or the intervention provider and implementation sites, and will specify data elements, timelines, access, storage, and security provisions.*

All parties commit to

- *complying with all applicable federal, state, and local data privacy and research regulations (e.g., FERPA, IRB requirements);*
- *ensuring that data requests are feasible, aligned to study needs, and do not create unnecessary burden on implementation sites; and*
- *using findings to inform future intervention development, research design, and implementation planning.*

Section 7. Budget and payment terms

Directions:

Clarify the general approach to funding, budget structure, and payment expectations associated with the study. Note. Some organizations may include this information in a separate document, but if needed, see the following example.

Notes:

Example:

The partnership agrees to

- *define the total study budget and scope of work, including the activities each partner is responsible for, the level of effort required, and how resources are allocated across study design, implementation, data collection, analysis, and reporting;*
- *establish a payment schedule aligned to deliverable milestones, specifying when payments will be made, what deliverables trigger payment, and how completion of deliverables will be documented and approved; and*
- *outline policies for expense reimbursement and financial procedures, including allowable costs (e.g., travel, materials), required documentation, invoicing processes, and expected payment timelines.*

Section 8. Summary of alignment

Directions:

Partners should confirm shared understanding of the study purpose, expectations, and roles outlined earlier. These elements should be reflected in formal agreements as appropriate.

Notes:

Example:

By signing below, all parties affirm that they

- *understand the purpose and demands of a field trial;*
- *agree to the roles and expectations outlined above; and*
- *commit to transparent, collaborative participation.*

Research organization:

_____

Name / Title / Date

Intervention provider:

_____

Name / Title / Date

Closing: Next Steps

Completion of this toolkit provides a structured understanding of whether a field trial is an appropriate next step, whether the intervention can be implemented under typical conditions, and whether partners are aligned on how the work will be carried out.

These tools are intended to serve as working documents. Intervention providers and research partners should revisit and refine the responses as study plans evolve, implementation realities emerge, and new questions arise. Clear documentation, shared expectations, and ongoing communication are essential to supporting rigorous research and effective partnerships.

Before moving forward, partners should confirm that:

- **the readiness decision documented** in **Tool 1**, including confirmation that the intervention is clearly defined and stable enough to be tested, is shared and understood across partners;
- **implementation expectations** outlined in **Tool 2** are feasible and realistic under typical conditions;
- **key roles, responsibilities, and expectations** described in **Tool 3** are aligned across partners; and
- **key risks or open questions have been identified and documented**, with a shared understanding of how they will be monitored and addressed during the study.

Findings from a field trial, whether positive, null, or mixed, should be interpreted in light of the implementation conditions and expectations established through this process. Partners are encouraged to communicate findings transparently, avoid overstating claims beyond the tested conditions, and use results to inform future development and decision making.

Whether the next step is to proceed with a study, make targeted adjustments, or pause intentionally, the work completed here provides a strong foundation for responsible evidence building and informed decision making across intervention provider–researcher partnerships.

Appendix A. Glossary

These definitions are used consistently throughout the toolkit. Partners are encouraged to review them before completing the tools to support shared understanding.

Adaptation: A deliberate change to the implementation of the intervention to better fit local needs or constraints. Adaptations should not alter critical components.

Critical component: The essential features of an intervention that must be implemented as specified for the intervention to produce intended outcomes. Changes to these components may reduce the effectiveness of the intervention.

Dosage (level of use): The amount of exposure to the intervention (e.g., time, frequency, sessions, interactions) in order for outcomes to be observed.

Field trial (e.g., efficacy, effectiveness study**):** A rigorous study minimally meeting What Works Clearinghouse standards with reservations that tests whether an intervention produces intended outcomes in education settings.

Feasibility: Whether a program or intervention can be implemented within typical constraints (e.g., time, staffing, scheduling, resources, policy).

Fidelity: The degree to which the intervention is delivered, including adherence to its critical components and prescribed implementation parameters.

Intervention: The specific version of a program, intervention, curriculum, practice, or model being tested, including its content, structure, and delivery approach.

Implementation sites: Schools, districts, programs, or other education settings where the intervention is implemented and studied.

Implementation supports: The training, coaching, materials, and technical assistance required to deliver the intervention as intended. Implementation supports are distinguished from the intervention itself. These supports enable delivery of the intervention but are not considered part of its core design unless explicitly defined as critical components.

Null findings: Study results showing no statistically significant difference between groups on the measured outcomes. Null findings may reflect limited impact, implementation challenges, or measurement limitations.

Theory of change: A clear explanation of how and why an intervention is expected to lead to improved outcomes, linking activities and short-term changes (e.g., in practice or engagement) to longer-term results.

Typical conditions: Conditions commonly observed in implementation sites, such as scheduling, staffing, resources, and constraints.

Typical practices: The practices, materials, and supports that are already in place in implementation settings, used as a comparison condition in a field trial.

Appendix B. Clarifying Your Intervention for Field Trials (Optional Resource)

When to use this resource

This optional resource is intended for use when an intervention is not yet fully specified or when additional clarity is needed to communicate critical components and implementation requirements to partners. It may be especially useful if **Tool 1** (Readiness for Rigorous Field Trials) or **Tool 2** (Implementation Feasibility and Fit) identified gaps in how the intervention is defined or described.

This tool supports providers and research partners in clearly specifying the intervention so that it can be consistently implemented, studied, and interpreted across settings.

Introduction

This tool supports a structured process to identify and describe key components of an intervention, distinguish critical components from adaptable components, and translate the intervention into clear implementation guidance. It is designed to help intervention providers communicate what must be delivered as designed and what can vary across settings.

This level of clarity supports consistent implementation, meaningful interpretation of study findings, and effective communication with implementation sites.

Step 1: Identify and describe each intervention component

This table is adapted from Hill et al. (2023)[i] and includes additional guidance to support clearer specification of intervention components for use in field studies. In this section, list each component of the intervention and describe it across key dimensions: content, quantity, mode of delivery, and quality. Each row should represent one component. Components may be critical or adaptable. Examples include major features of the intervention, routines, activities, or structures (e.g., instructional routines, coaching supports, digital features).

For each component:

- **Indicate whether it is a critical component.** A critical component is a component that is essential to the intervention's theory of change and must be delivered as specified for the intervention to be considered implemented as intended.
- **Describe each component across the following dimensions:**
  - » **Content:** what is delivered (e.g., materials, activities, topics)
  - » **Quantity:** how much or how often it is delivered (e.g., duration, frequency)
  - » **Mode:** how it is delivered (e.g., in person, virtual, whole group, small group)
  - » **Quality:** expectations for how well it is delivered (e.g., adherence to protocols, level of instructional rigor)

Identify which components have allowable adaptations, and specify what those adaptations may be (i.e., aspects that may be adjusted without changing critical features). Clearly distinguishing critical components from allowable adaptations helps ensure consistent implementation and supports accurate interpretation of study findings.

See Table 1 for an example illustration of how to describe a component across all dimensions. This example uses the Structured Decoding and Fluency Instruction routine from the Providing Reading Instruction to Students in Middle School (PRISMS) toolkit (https://ies.ed.gov/ncee/rel/reading-intervention-grades-6-8). It reflects a classroom-based instructional routine. Users should adapt this template to fit their intervention type (e.g., digital platforms, administrative tools, student-facing applications, out-of-school-time programs).

Table 1: Intervention components, dimensions and adaptations

Component	Critical component flag	Dimension				Allowable adaptations
		Content	Quantity	Mode	Quality	
Example. Structured Decoding and Fluency Instruction (Routine)	☉	*Explicit, systematic instruction in decoding and fluency using evidence-based routines (e.g., modeling, guided practice, cumulative review) aligned to PRISMS modules*	*30 minutes per session, 4–5 times per week for the duration of the intervention period*	*Small-group instruction (i.e., 3–6 students), delivered in-person by a trained implementer; virtual delivery permissible with comparable structure*	*Instruction follows PRISMS routines with high adherence, including explicit modeling, active student responses, immediate feedback, and opportunities for cumulative practice; pacing matches student needs while maintaining routine structure*	*Scheduling (time of day), staffing role (e.g., interventionist vs. classroom teacher), and specific examples/ materials may vary; group size may range within defined limits; sessions may be delivered virtually if instructional routines and interaction quality are maintained*
	☐					
	☐					
	☐					

[i]This table is adapted from Hill, C. J., Scher, L., Haimson, J., & Granito, K. (2023). *Conducting implementation research in impact studies of education interventions: A guide for researchers* (NCEE 2023-005; Exhibit 4). National Center for Education Evaluation and Regional Assistance.

Step 2: Translate each component into implementation details and decision points

In this step, build on the components identified in Step 1 by further specifying how each will be implemented in practice. Use this section to expand and operationalize the details reflected in the table previously. For each component, describe how it will function in typical education settings, and identify the key decisions implementation sites must make.

For each component:

- Complete the Implementation Site Snapshot to describe how the component will operate in practice.
- Identify Implementation Site Decision Points and Questions that must be addressed to implement the component as intended.

Implementation site snapshot

- Describe how the component will be delivered in practice:
  - **Who uses or delivers it:** role(s) responsible for delivery (e.g., teacher, interventionist, coach)
  - **When and where is it used:** timing, frequency, and setting (e.g., during intervention block, pull-out setting, after school)
  - **How users are grouped (if applicable):** whole class, small group, or individual
  - **What materials or technology if required:** what is needed and who provides it

Implementation site decision points and questions

Identify the key decisions implementation sites must make to implement the component consistently and feasibly, such as

- staffing assignments and role clarity;
- scheduling and instructional time;
- grouping structures;
- materials, technology, and data system requirements;
- coordination across staff or departments; and
- approvals, policies, or resource constraints.

These entries should surface key decisions that may vary by context while remaining within the bounds of allowable adaptations identified in Step 1.

Guidance for use

- For critical components, clearly specify who delivers the component, how often it occurs, and under what conditions it must be implemented.
- Use the Decision Points to highlight where flexibility exists and what must be determined locally.
- Ensure that requirements and potential constraints are clearly documented, particularly when implementation depends on coordination, materials, or technology.

See Table 2 for an example illustration of how to translate a component from Step 1 (Structured Decoding and Fluency Instruction) is translated and expanded into a complete implementation snapshot and set of decision points. Although some information will overlap with Table 1, Table 2 provides more detailed, practice-level specifications to support implementation.

Table 2: Template for detailing implementation and implementation site decision points

Component	Implementation site snapshot				Notes for implementation site points/questions
	Who uses or implements it	**When/where is it used**	**User grouping** (whole class/small group/1:1)	**Materials or technology needed (who provides it)**	
Example. Structured Decoding and Fluency Instruction (Routine)	*Daily (30 minutes), scheduled during intervention block or designated literacy period; occurs in classroom or pull-out intervention setting*	*Small group (3–6 students) based on identified reading need*	*PRISMS instructional routines and materials (e.g., lesson guides, practice materials); student texts aligned to decoding/fluency level; optional digital tools for practice; district typically provides core materials, school ensures access*	*Who will deliver instruction (teacher vs. interventionist)? When will the intervention block occur within the master schedule? How will students be grouped and regrouped over time? What materials will be used, and are they already available or need to be procured? Are there space constraints for small-group instruction? How will coaches support fidelity (e.g., observation, feedback)?*	*Scheduling (time of day), staffing role (e.g., interventionist vs. classroom teacher), and specific examples/ materials may vary; group size may range within defined limits; sessions may be delivered virtually if instructional routines and interaction quality are maintained*

This specification can be used to support readiness (Tool 1: *Readiness for Rigorous Field Trials*), inform feasibility discussions (Tool 2: *Implementation Feasibility and Fit*), and strengthen alignment with research partners.

[i]This table is adapted from Hill, C. J., Scher, L., Haimson, J., & Granito, K. (2023). *Conducting implementation research in impact studies of education interventions: A guide for researchers* (NCEE 2023-005; Exhibit 4). National Center for Education Evaluation and Regional Assistance.

AIR®

Established in 1946, the American Institutes for Research® (AIR®) is a nonpartisan, not-for-profit organization that conducts behavioral and social science research and delivers technical assistance both domestically and internationally in the areas of education, health, and the workforce. AIR's work is driven by its mission to generate and use rigorous evidence that contributes to a better, more equitable world. With headquarters in Arlington, Virginia, AIR has offices across the U.S. and abroad. For more information, visit AIR.ORG.

The research reported here is supported by the Institute of Education Sciences, U.S. Department of Education, through Grant R324A230040 to the American Institutes for Research. The opinions expressed are those of the authors and do not represent views of the Institute or the U.S. Department of Education.