

Education-to- Workforce Framework

Action Guide

Document Guidance

Where to start if...	Go to...
You are new to the E-W Framework or this process	Overview + How the Process Works
You already know your entry point	Jump directly to Action 1, 2, 3, or 4
You want to assess readiness	Readiness Reflection Tool
You need to choose which tools to use	Tools and Resources Guide

Overview

[TNTP](#), with the support of the Gates Foundation, partnered with state education agencies to leverage Mathematica's [Education to Workforce Framework](#) to guide data-informed [continuous improvement](#) work in service of stronger student outcomes. Through this work, teams leveraged available data, including state longitudinal data systems where available, to explore essential questions about student success, learning pathways, and workforce outcomes.

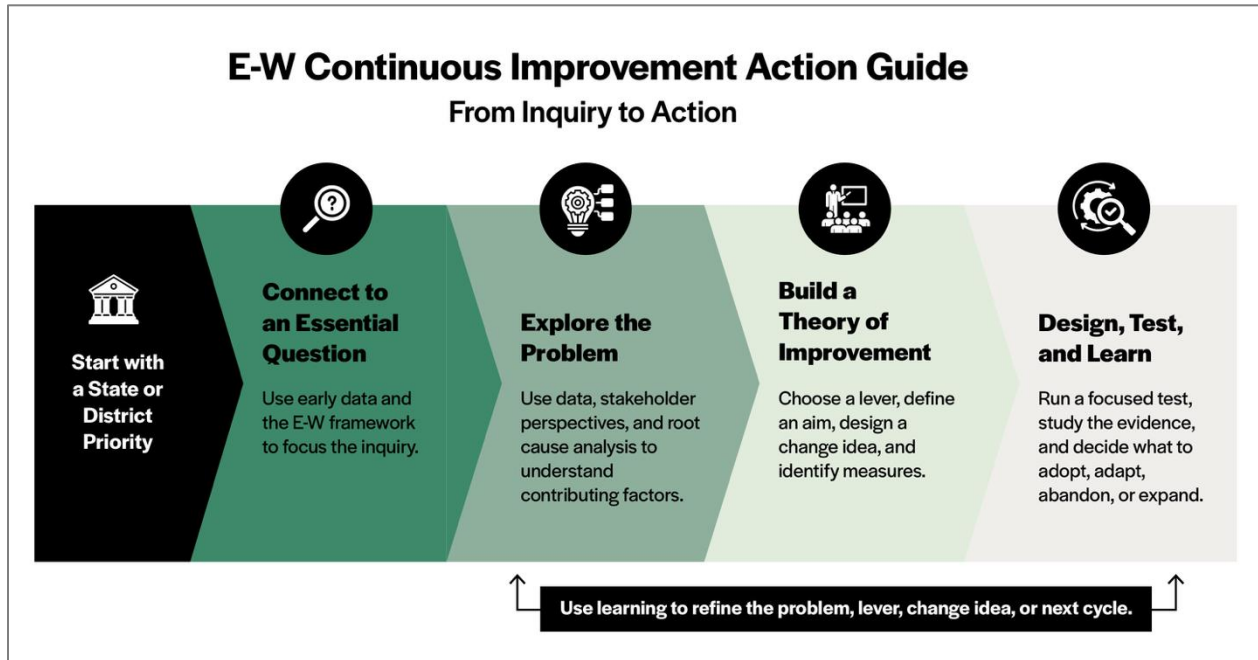
In our experience working across more than 6,000 school districts in 39 states across the country, TNTP has seen that designing, building and implementing transparent data systems is an important first step, but does not, by itself, improve outcomes for young people. The more important and challenging work is around leveraging data as information that can be used to build, execute, monitor, and adjust a strategy that is focused on improving young people's educational and workforce outcomes. Data and technology are not separate from teaching and learning. They are part of the infrastructure that helps this work happen consistently and effectively. That might include how educators access student information, how teams monitor progress, how systems reduce duplicate work, and how leaders learn what is working and where support is needed.

Through our work across three states and seven districts, we learned about practice, protocols, and processes that can enhance the utility of the framework to guide system-level change. This Action Guide is a result of our learnings in the field. The Action Guide offers a practical process for state and district teams to use the E-W Framework, available data, and continuous improvement practices to move from inquiry to action. The guide helps teams connect a broad priority or data trend to an essential question, explore the problem more deeply, build a theory of improvement, and design an improvement cycle that can be tested, studied, and refined.

This guide is grounded in the belief that data-informed continuous improvement is not only about accessing better data, it is about creating the routines, questions, and partnerships that help teams make meaning of information they already have, identify what they still need to understand, and use what they learn to guide action. In our work with state and district partners, some of the most powerful shifts happened when teams looked at familiar data through a new lens: connected to students' education-to-career trajectories, disaggregated in more revealing ways, or discussed through a structured inquiry process.

The Process

We have outlined a 4-step process to guide the work:



- **Action 1: Connect to an Essential Question:** Use early data and the E-W Framework to select a meaningful question and begin naming the problem space.
- **Action 2: Explore the Problem:** Use additional data (including [E-W Framework Indicators](#)), stakeholder perspectives, and root cause analysis to understand what is contributing to the issue and who is most impacted.
- **Action 3: Build a Theory of Improvement:** Define a focused aim, choose a priority lever, and select a change idea to test.
- **Action 4: Design, Test, and Learn from an Improvement Cycle:** Plan and implement a focused test of the change idea, collect evidence, evaluate what happened, and decide what to adopt, adapt, abandon, or expand.

Data-informed continuous improvement is more than reviewing reports or monitoring outcomes. It is a disciplined way of using information throughout the improvement process: to identify patterns, deepen understanding of student and stakeholder experiences, test assumptions, monitor implementation, and decide what to do next.

Who this guide is for & How to use it

This guide is intended for district, school, state, intermediary, and workforce partners engaged in Education-to-Workforce continuous improvement. It can be used whether you are beginning a new improvement effort or joining work already in progress.

Most teams will use this guide over time rather than reading it cover to cover. Start with the section or action that matches your current stage of work, then return to the guide as new questions arise. Throughout the guide, links direct you to tools, templates, and examples that can be adapted to your context.

Through this Action Guide, each step includes:

- **Why this matters:** The purpose of the action and why it is important to the overall process
- **What to do:** The key decisions and activities for the team
- **How to do it:** Practical guidance, prompts, and suggested approaches
- **Connected tools and resources:** Links to workbook sections, slide modules, protocols, E-W Framework resources, and continuous improvement tools

Teams can use the guide from beginning to end or enter at the point that best matches their current stage of work. For example, a team that already has a clear priority area may begin by connecting that priority to an essential question and reviewing available data. A team that already has a refined problem statement may use the guide to build a theory of improvement and design an improvement cycle. However, teams should be cautious about skipping too quickly to a change idea, and falling into the tempting “solutionitis.” The power of this process comes from slowing down enough to understand what the data are signaling, who is most impacted, what system conditions may be contributing to the issue, and what change is most worth testing.

To use this guide as a facilitation companion we have included tips throughout this guide. The [workbook](#) and [slides](#) support participants to do the work; this guide aims to support facilitators to support teams through the process.

How to know if you’re “ready”

The Action Guide is designed to be used somewhat flexibly; teams may adapt the process to their context, timeline, and available data. But, in our experience, the work is strongest when several enabling conditions are in place: a meaningful education-to-career priority, leadership commitment, access to usable information, people who can help interpret data, a willingness to examine gaps across student groups, a learning orientation, and a partnership orientation. Teams should use [this readiness tool](#) to guide reflection as they are just beginning this work. These conditions are not requirements, but should be considered honestly as teams prepare to use the Action Guide. Understanding the strengths and considerations of your team and your system can help guide early decision making around where to focus, who else to engage, and where additional support will be needed.

In this guide, data refers broadly to the information teams use to understand student experience and outcome:

- In Action 1, data supports teams to notice patterns and ask better questions
- In Action 2, your data helps test assumptions and understand the system behind the pattern
- In Action 3, it is data that will make the theory of improvement *testable* and actionable
- And in Action 4, your data guides the decision-making based on your learnings from the implementation of your change efforts.

Teams should draw from a broad continuum of evidence, including [E-W Framework indicators](#), local data, student and family perspectives, educator observations, implementation evidence, research, and information about the conditions shaping student experience. The goal is not to collect everything, but to use the smallest set of useful information needed to make a better decision. *In state-district partnerships, the work is especially powerful when state leaders create the conditions for districts to use longitudinal data not just for reporting or accountability, but for inquiry, strategy, and continuous improvement.*

Action 1: Connect to an Essential Question

Useful Links

- [Workbook](#)
- [PowerPoint](#)

Why This Matters:

The E-W Framework is grounded by 20 [Essential Questions](#) that touch on every aspect of a student's education to career journey, supporting leaders to review data through the lens of the connections to students' longer term trajectory. Used well, they help teams ask what the data may be signaling, whose experience needs closer attention, and what the team needs to understand before deciding what to do. Starting with an Essential Question pushes teams to step back from individual data points and ask a bigger question: what does this data tell us about where students are headed?

What to Do:

In Action 1, teams will clarify:

- The broader vision or priority they are trying to advance
- The essential question that will guide their inquiry
- The types of data they have that connects to the Essential Question
- Emerging trends/gaps that show up in the data to more deeply explore

Education organizations are grounded in priorities that drive their strategic plan, instructional priorities and/or school-based improvement plans. Through this process, teams will begin by considering these priorities, the data they have, and the essential question(s) that position the [core priority and connected data](#) in the context of students' education to career journey.

Through early conversations Arkansas Department of Education (ADE) leaders elevated an area of interest around Math skills and the connection with CTE pathways. Through a review of data and further discussions with the Math and CTE Directors a clearer problem statement emerged connecting emerging gaps in workforce readiness with gaps in math proficiency. As we brought this work to teams in Southwest Arkansas where the development of lithium plants is prompting analysis around workforce development, the district teams moved from the state's problem statement to connect to [Essential Question 15](#): Are there quality pathways for students who pursue career training that lead to employment in quality jobs?

We recognize that not every leadership team will enter this process in the same way. Some start with a specific indicator, like in Nebraska where leaders were focused on [consistent attendance](#) (and even more specifically on chronic absenteeism). Others start with a broader challenge, as in Tennessee and Arkansas, where leaders were looking at regional industry growth ([employment in quality job](#)), math data ([high school math proficiency](#)) and asking whether students were prepared for emerging opportunities ([access to CTE in-demand pathways](#)). However, in all cases, there is a set of data that prompts the same core discussion: What do we need to better understand about the student experience to ensure growing potential for economic and social mobility? Starting with an essential question prompts teams at each level of the system to grapple with what the data is actually signaling and what it means for students' real lives.

What do you want to better understand to drive improvement in your students' education to career journey?

How to Do It?

With your team, begin to explore the question through available data. Each essential question includes an array of [data points](#) that begin to illuminate the current state for students as they are transitioning into the workforce. The E-W Framework provides several helpful tools in both [identifying the data](#) that are connected to your essential questions and facilitating the work of sense-making. Start with usable information, not every possible data point. The goal is not to conduct a comprehensive analysis. It is to identify a meaningful pattern, ask a better question, and decide what to explore next.

A key component here is the work of [disaggregating](#) your data to better understand if there are particular groups of students who are having different experiences. As you work through the data, the goal of this step is to identify an area of focus for the work - what is a gap or trend in your data that you want to better understand?

Data We Have	Emerging Trends <i>What are you noticing?</i>
<i>Emerging Problem Area: We want to better understand [essential question] because early data suggest [emerging trend or gap], particularly for [student group/population/context]. This matters because [connection to key priority, or student outcomes].</i>	

Action 2: Explore the Problem

Useful Links

- [Workbook](#)
- [PowerPoint](#)
- [Data for Equity Workbook](#)
- [Fishbone Template \(Action 2\)](#)
- [Virtual Fishbone Facilitator Guide](#)
- [Research Pause Planning Guide \(Actions 2 & 3\)](#)

Why This Matters:

Once teams have identified the data trend or gap to explore, the next step is to explore the myriad factors that are influencing this problem, ensuring that the improvement efforts are targeting a root cause. This step in the process ensures that teams are not jumping to solutions before understanding the *exact* problem to be solved.

Teams use additional data and stakeholder perspectives to build a fuller understanding of the problem, including who is most impacted, what conditions may be shaping the current experience, and which contributing factors are within the team's influence.

The E-W Framework is especially useful in this step because it helps teams look beyond individual outcomes and consider the broader system and adjacent conditions that influence students' education-to-career journey.

In Nebraska district leadership teams reflected on what is causing absences, and what is in their locus of control. While two districts had similar problem statements, and defined similar causes, when they designed their change efforts - each team selected a different root cause to focus their improvement efforts based on what was in their locus of control, and where they could make the deepest impact based on their context. One district selected student engagement, the other focused on parent/family partnership.

What to Do:

In Action 2, teams will:

- Define what they already know about the problem area, and what they want to know more about/additional data to gather
- Continue to gather and review data to build understanding about the problem (particularly data from the students, families and teachers)
- Engage in a root cause analysis to determine the key system conditions that are influencing/impacting the problem
- Define the problem statement and an area of focus for improvement efforts

Teams will continue to work with data, but the purpose shifts. In Action 1, teams used early data to identify an initial focus. In Action 2, teams use deeper data analysis and stakeholder perspectives to test assumptions, surface root causes, and refine the problem statement. The problem statement grounds the improvement work as a specific, evidence-based description of what is happening for which students and why it matters.

As teams begin to use the data they have, and consider additional data to gather, the Framework's [Data Equity Principles](#) provides an ethical foundation for how data are gathered and used - protecting and respecting our stakeholders, and keeping attention on the systems shaping student experiences and outcomes. We encourage teams to engage with these principles and articulate as a group how they will uphold them through this work. As you gather and interpret data, ask: Who has access to this information? Who is making meaning from it? Whose experience is missing? What assumptions, stigma, or potential harm should the team avoid?

How to Do It:

At this stage of the work, it is important for the team to orient to the process as [systems work](#). This orientation supports discussions that focus on the impact and consequences of system design, not the fault of the individual members of the system. Rather than jumping directly from a data point to a solution, the team will look across the factors that may be contributing to the current pattern and define the problem through the perspectives of the people closest to it — including students, families, educators, and school leaders. Grounded in improvement science, and reflected throughout the [data equity principles](#), to improve outcomes, teams must understand the system producing the current results and make the work both problem-specific and user-centered. To build understanding of the problem:

- Locate your problem within the larger systems of people, policies and attitudes
- Look at all the factors that contribute to the problem
- Define the problem through the perspective of the users (students, families, teachers, etc.)

Revisit the Problem Area

The team begins with the available data and reorienting to the problem area, using a data review protocol (such as [this one](#)) to elevate early observations about the problem. This is a critical moment to engage additional perspectives to reflect on the data, and explore additional sense-making. We strongly advocate for the use of a protocol to guide the group through the review of the data. A closely facilitated process makes the space for team members to focus on the work of inquiry and exploration and stay away from brainstorming solutions and ideas.

If the current data you have allows for it, be sure to [disaggregate](#) data across different subgroups (i.e. race, gender, grade level, region, student need, etc.) to reveal differences in access, experience, and outcomes that averages can hide. In addition, as the team is beginning to build understanding of the current state, teams should engage with research around the emerging problem area. Understanding the field's current understanding of the issue can help prompt discussion around the additional information and data needed to explore the issue in your context.

Through further exploration of the available data related to the problem area, the team will elevate additional questions and data needs. Guide the team to explore what else they need to know, and what data needs to be gathered to identify what is really “underneath” this problem. Building an understanding of a problem requires gathering data from the stakeholders “closest” to the problem; consider ways to gather qualitative data from students, families and teachers.(i.e [empathy interviews](#), [shadow a student](#), [student engagement survey](#), [classroom observations](#), etc.).

Before gathering new information, clarify what question the team is trying to answer and whether existing data, stakeholder perspectives, or implementation evidence can help answer it. When new data collection is necessary, identify who will gather it, where it will live, and how the team will avoid duplicate requests to students, families, educators, or schools.

Facilitation Note:

Supporting the work of disaggregating the data to inform the work: While outcome data helps teams see where gaps are emerging; system condition data help teams understand whether students are experiencing different supports, relationships, opportunities, or conditions. For example, a team may disaggregate chronic absenteeism by grade level and find a 7th-grade spike, then disaggregate belonging survey data by attendance-risk group and find that students with early attendance concerns are less likely to report having a trusted adult. For additional guidance consider consulting the information and resources [here](#).

The team in TN wanted to better understand how their students currently understand their career options, and connections to the available CTE pathways, so they administered a survey across the students and were able to see differences and trends across grade levels and CTE pathways.

What We Need to Know More About	Data We Need to Gather

Review Additional Data and Perspectives

There may be a significant pause in the process as the team [plans for](#), and gathers additional data. When the team is able to come back together be sure to create an opportunity for the group to return to the [data protocol](#) to make sense of the additional data that is now available to further expand the teams' understanding of the problem.

Refine the Problem Statement

As teams explore the problem, guiding questions include:

- What is the current condition or gap?
- Who is most impacted?
- What do we know from the data?
- What do we still need to understand?
- What are students, families, educators, or partners telling us?
- What factors may be contributing to this pattern?
- Which factors are symptoms, and which may be deeper causes?
- Which factors are within our influence?
- What assumptions are we making that need to be tested?

Facilitation Note:

Narrow the problem. As teams are analyzing a large array of data, it can be difficult to narrow in on a specific problem. Begin by reconnecting to the essential question to prompt reflection around where to focus the work. As teams explain why the problem matters, make space to (re)connect the Essential Question to student experience, equity, and longer-term education-to-career outcomes. And if the problem statement feels too broad, consider guiding the team to name one student group, one pattern, and one point in time.

Problem Statement:

[Student group] are experiencing [current condition or gap], as shown by [data/evidence]. This matters because [connection to the Essential question].

Facilitate a Root Cause Analysis

Structured continuous improvement tools can help teams organize this thinking. In our work we have found the [Fishbone Diagram](#) to be a constructive protocol to guide the root cause analysis work. Other options include the [Five Whys protocol](#) and [interrelationship digraph](#). Across our work we generally found the [Fishbone Diagram](#) to be the most effective tool. Importantly, this approach allows teams to name *all* the “causes” of the problem that may include external factors as well as those within their locus of control. In our experience, it was important for teams to be able to list out all the contributing factors to be able to identify what is in their locus of control, and ultimately, where to focus improvement efforts initially.

As teams work through this step, it is important to avoid defining the problem as the absence of a preferred solution. Rather, systems work requires that designers work from a place of two assumptions, informed by [improvement science](#) and [user-centered design](#):

- People in our systems *want* to do a good job, they are not the cause of the problem we aim to solve.
- We cannot see the entire system ourselves, and must actively engage diverse perspectives.

What is contributing/causing the issue? Work together to generate a [Fishbone Diagram](#).

The work of facilitating a root cause analysis requires that the team commit to honoring [norms](#) and practices that ensure a space that is iterative and expansive. Through this activity, the team will be most effective if the space allows for continuous brainstorming and exploration of all the different factors that are contributing to the problem. Practices like “yes, and...” and shared accountability to hold up the group norms can be meaningful here. In addition, facilitators should consider if there should be ways to contribute ideas through a format that is anonymous to ensure that power dynamics are not influencing the discussion of the group. The process of generating a Fishbone Diagram is as follows:

- Align on the problem statement.
- Brainstorm causes
- Group into Levers
- Reflect on the levers/conditions

At this point, teams have a refined problem statement and 1–2 priority lever candidates. Final lever selection and shared commitment happen in Action 3.

NE districts explored higher absenteeism rates at the transition grades, uncovering system conditions that spanned school-based conditions including student engagement to external factors like transportation and illness. In AR, district teams elevated external factors including transportation alongside student engagement and family partnerships.

[Research Pause - Exploring the Problem](#): This is an important moment to pause, and make space to engage with the research and expert resources on your topic. This pause can support teams to check

their assumptions and refine their understanding of the issue before selecting a lever. The goal is not to identify a solution yet. The goal is to ask what the field already knows about the causes, conditions, and patterns connected to the problem and to use that knowledge to strengthen the team's analysis. Facilitators should choose resources that surface patterns, causes, contributing factors, and system conditions. If resources include strategies or interventions, use them to understand what conditions they are designed to address, not as recommendations for what the team should do next.

Teams should return to their fishbone and ask:

- What does the research confirm?
- What does it challenge?
- What does it help us see that we missed?
- What should we add, remove, or revise?
- What do we still need to learn from stakeholders in our own context?

At the end of this step, teams will be able to connect their problem statement to root cause(s), opening the door to identify a key area to focus improvement efforts.

Facilitation Note:

Redirect solutionitis. In our experience this is a moment when teams instinctively begin brainstorming “solutions.” The work of building a deeper understanding of the problem illuminates an array of gaps and opportunities for improvement, and educators are invested in solving for these gaps. However, it is key at this moment to support the team to continue through the process to next name the key lever where they will focus improvement efforts *and then* get to change ideas. We have found that the discussion and reflection that emerges in the next steps of selecting a key lever pushes teams to think deeply about their locus of control, where the greatest impact can be, and so on. That said, if participants begin naming solutions, capture the idea in a parking lot and redirect to the cause underneath it. (i.e. “That may become a change idea later. For now, what cause or system condition is that solution pointing us toward?”)

In our work in AR, the team facilitated a root cause analysis related to “Not enough students/families are aware of career opportunities in the region and how to support their future careers.” As the team engaged in their conversation about the myriad contributing causes, their conversation quickly shifted to focus on parent and family engagement discussing possible solutions to mitigate adults’ realities of work schedules, transportation, mindsets, etc. Notably, as they paused to reflect across the levers they had identified, and talk through their locus of control and potential impact, they shifted to focus on student exposure to career pathways opportunities. IsFrom here they and building student understanding of local career opportunities and the education to career experiences of alumni students.

Updated Problem Statement:

[Student group] are experiencing [current condition or gap], as shown by [data/evidence]. This matters because [connection to the Essential question]. Based on data and stakeholder perspectives, contributing factors include [priority causes].

Action 3: Build a Theory of Improvement

Useful Links

- [Workbook](#)
- [PowerPoint](#)
- [Virtual Theory of Improvement Facilitator Guide](#)
- [Research Pause Planning Guide \(Actions 2 & 3\)](#)
- [Measurement Logic Template \(Action 3\)](#)

Why This Matters:

After teams have explored the problem and identified priority contributing factors, the next step is to define their approach to improvement. A theory of improvement creates the bridge between understanding the problem and testing a change idea. This is where the team moves from problem exploration into improvement design.

Often we see systems jump from identifying a problem to implementing a solution. A theory of improvement helps teams make their logic explicit: what they are aiming to improve, which lever they believe will matter most, what change idea they will test, and how they will know whether the change is beginning to work.

This action is also important for stakeholder engagement. When teams can clearly explain their theory of improvement, they are better able to bring others into the work. The theory helps colleagues, students, families, and partners understand not only what the team is doing, but why the team believes it will make a difference.

What to Do:

In Action 3, teams will:

- Identify the key lever/system condition where they will focus their improvement efforts
- Define a measurable aim for the improvement work
- Engage with research and promising practices to inform the design of the change idea.
- Co-design a change idea that is feasible to implement and connected to the key system condition.
- Identify metrics for progress monitoring
- Codify the theory of improvement and check for consensus across the team

Teams will build on their work exploring the problem to narrow in on a lever/system condition and defining a measurable goal for their improvement work. And from there, teams co-design a change idea that they believe they can effectively implement, and is likely to positively impact the system condition that is influencing their identified problem. As teams design the theory of improvement, they will identify metrics of progress that will help the team understand whether the change is happening and whether it is beginning to influence the intended condition.



The [E-W Framework](#) can support this step by helping teams connect their aim and lever to relevant outcomes, milestones, [system conditions](#), [adjacent conditions](#), and [evidence-based practices](#). The [Education-to-Workforce Data Tool](#) can help teams get initial insights on these aspects that can be supplemented by locally held data. [Continuous improvement tools](#) such as driver diagrams and the Framework's [Evidence-based Practices](#) can help teams organize their logic and identify what to test first.

Note: Throughout this guide, we use **lever** to refer to the system condition the team chooses to focus on first (this is sometimes called a "driver."). The lever should emerge from the root cause analysis and should be within the team's influence.

In NE, there was quite a bit of alignment across their problem statements and the conditions that showed up in their root cause analyses. But as they considered the best lever to prioritize in their context (low lift/high impact), one district prioritized student engagement ([sense of belonging](#)), and the other parent partnership ([school-family engagement](#)).

How to Do It:

Choose the Lever:

Teams will likely transition from Action 2 to Action 3 with a strong candidate for the priority lever; the goal here is not just to confirm that candidate but to surface any remaining disagreements, test it against new information gathered between sessions, and build genuine shared understanding before designing the change idea.

The key step of identifying shared perspectives across low effort/high impact supports the team to identify the key lever (system condition) to target for their improvement efforts. In our experience guiding this work at the district and school level, teams were typically able to move from this step right to designing a change idea. However, continuous improvement tools can be used to further narrow to an area for improvement. In larger, more complex system analysis a step of connecting the [systems and structures](#) to each of the levers can support identifying a place to focus.

At this stage the team should grapple with the different system conditions that emerged through the root cause analysis. Each participant should propose a lever to focus on, and share their thinking. Through the discussion, as trends continue to emerge across the group, the team should consider the following:

- Do we have a shared understanding of what this lever is?
- Do we agree that improvement in this area could meaningfully impact the problem area?
- Is this lever in our locus of control?

As you reflect on the Fishbone, and your root cause analysis — what are the areas that are in your locus of control? And what is highest leverage?

Once you have narrowed in on the key lever you will address, how will you measure if you are seeing positive shifts in that area?

Define Your Aim:

Once the team has identified the lever to focus their improvement efforts, the team is ready to define their aim for this work. The aim should be specific enough to guide action and measurable enough to support learning. It should name what will improve, for whom, by how much, and by when.

Once you have narrowed in on the key lever you will address, how will you measure if you are seeing positive shifts in that area?

How will you know if you have met your aim? What are the data points you will look at?

Research Pause - Designing the Change: Once teams have selected a priority lever, this is another opportunity to pause and engage with the Framework's [evidence-based practices](#) and field experts

guidance connected to that lever. This pause helps teams design change ideas that make sense in their local context, while being research-informed. It is important to note that the goal is not to copy a program exactly, but to understand what practices have promise, what conditions make them work, and what small test could help the team learn whether a similar approach may work in its own setting.

Teams should ask:

- What practices are connected to our selected lever?
- What conditions need to be in place for the practice to work?
- What would need to be true for it to work here?
- What is the smallest version we could test?
- What implementation supports would be needed?
- What process and leading indicators should we track?

Design the Change Idea:

The change idea is the specific practice or routine the team will test. It should be small enough to try in a short cycle, specific enough that people know what to do, and measurable enough that the team can learn from it. At this stage we found teams were well served to consult the relevant research and [evidence-based practices](#) to better understand some of the tested efforts that are connected to the system condition you are aiming to influence (see Research Pause above). However, it is critical that the change idea be reflective of the team's perception of what they can implement, and measure.

Measurement Logic

Finally, develop the measurement logic. Teams should be able to connect the aim, lever, change idea, and measures in one coherent sentence. Throughout Action 3, teams are infusing discussions about measurement into the design process.

This structure helps teams distinguish among different kinds of measures:

- **Aim (Outcome Measures):** Typically lagging indicators, these metrics show progress toward the longer-term outcome or milestone. Then Framework's [Outcome/Milestone Indicators](#) can be helpful to guide these discussions. These metrics should connect to the Aim and Essential Question that the team is focusing on. (Important to note, through the improvement cycle process you may find that over time your lever, and your change idea, may shift, and therefore those metrics of progress may change. *However*, the measurement of your Aim should not change.)
- **Key Lever (System Condition Measures):** Typically leading indicators, these metrics show improvement in the system condition the team has identified to focus their improvement efforts. In this case, the Framework's [System Conditions](#) can be helpful to guide these discussions. When teams select their key lever they are identifying a place in the system to improve that is essentially an enabling condition for progress toward the Aim. These metrics should give the team the ability to measure progress around that enabling condition.
- **Change Idea (Process Indicators):** These measurement tools are focused on: *is* the change idea happening as the team intended it to. It is critical that these measures be easy to collect, reflective of both the activity and intended implementation, and provide the team with information about what barriers might be getting in the way.

Theory of Improvement	Question Addressed	Examples
"If we want to AIM , then we need to	Are we making progress toward the aim?	Chronic absenteeism rate ; high school graduation ; math proficiency ; CTE pathway completion
focus on THIS LEVER ,	Is the lever beginning to shift?	Student sense of belonging survey items; family engagement survey responses; effective college/career advising
and the best way I can think of doing this is to CHANGE IDEA. "	Is the change happening as intended?	Number/percentage of targeted students connecting with a mentor ; consistent implementation of advisory curriculum ; number of advising conferences completed

This measurement logic is critical as it helps teams learn whether the change idea is actually influencing the lever they care about. Teams should select measures not only because they are available, but because they are useful. Useful measures are timely enough to inform action, simple enough to interpret, feasible enough to collect consistently, and connected to a decision the team expects to make.

Theory of Improvement:

- If we want to **[aim]**, we will know we are making progress by looking at **[lagging indicator]**.
- To get there, we are going to focus on **[key lever]** and will track indicators of progress by looking at **[leading indicators]**.
- We are testing **[change idea]**, and will know if it is happening as intended by tracking **[process indicators]**

For each measure, clarify: Where will the information come from? Who will collect, access, or organize it? How often will it be available? Who needs to review it? What decision will it inform?

Check with the team:

Before moving into Action 4, teams should codify their theory of improvement and check for consensus. Use the sentence frame above to make the team's logic visible: what you aim to improve, which lever you believe will matter most, what change idea you will test, and how you will know whether the change is happening and making progress. Read the completed sentence aloud and ask whether the theory is clear, plausible, measurable, and grounded in your understanding of the problem. If the team cannot explain why the change idea should influence the selected lever, or how the measures will help them learn, pause and refine the theory before designing the improvement cycle.

Facilitation Note:

Is there an enabling action that needs to come before the change idea? Sometimes, as teams design a theory of improvement and their change idea, they may realize that the next necessary move is not yet an improvement cycle. Instead, the team may need to implement a discrete enabling action before a meaningful cycle can be tested. This is appropriate when the team has identified a prerequisite that must be in place for the improvement work to happen at all. For example, there may be a communication protocol that needs to be reinstated, a scheduling issue that needs to be resolved, or a data access limitation that has to be mitigated before the change idea can be implemented. When this happens, teams should name the enabling action clearly and complete it before returning to the improvement cycle. Once this enabling action is complete, the team can come back to the improvement cycle process.

Action 4: Design, Test, and Learn from Improvement Cycle(s)

Useful Links

- [Workbook](#)
- [PowerPoint](#)
- [Virtual Theory of Improvement Facilitator Guide](#)

Why This Matters:

Improvement cycles are the way that teams will implement their change idea in a systematic way, including built in time for data-informed reflection and refinement. Through this process teams have the opportunity to “test” their change idea, building understanding around challenges of implementation as well as potential impact. Too often systems quickly move from a problem statement to implementing “solutions” without a process for understanding how, *and if*, it works.

This step also reinforces the continuous learning embedded in this process. Teams use evidence throughout implementation to understand whether the change idea is happening as intended, whether it is influencing the intended lever, and what needs to be adjusted.

One of the AR districts was prioritizing the system condition of student exposure and access to career-connected learning. In their change idea they began with facilitating 1:1 conversations between students and CTE and Math teachers to discuss career interests and their own career journeys. Through this test, they discovered early indications that this was a powerful move for the Math teachers as they were engaging students in a different way, but data from CTE teachers indicated that these career-focused conversations were already integrated into their practices so this change idea was not actually new for them (or the students). As a result they continued to facilitate explicit connections between the Math teachers and students and then reached out to alumni to gather videos and testimonials as their next effort to expand exposure for students around potential career opportunities connected to their current CTE pathways.

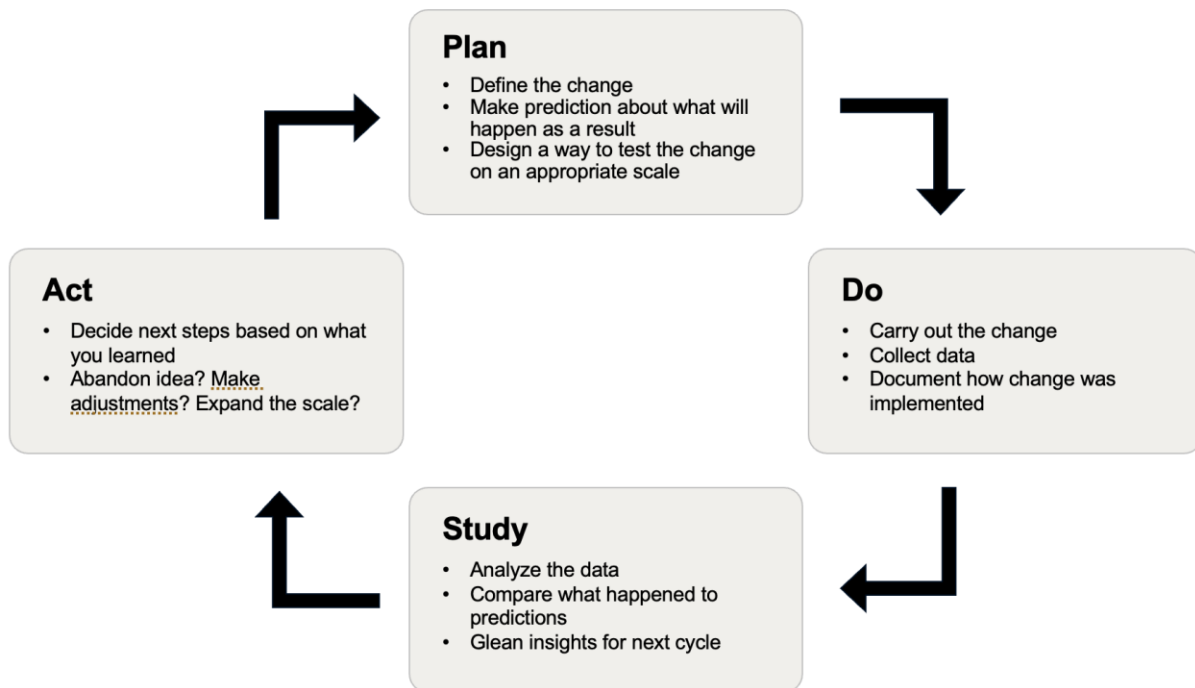
What to Do:

In Action 4, teams will:

- Design the improvement cycle implementation plan
- Build out a system to reflect on the cycle and determine next steps
- Define the team and process to come back together quarterly/biannually to reflect on the leading indicators/measures of progress for the driver

Improvement cycles typically follow a PDSA structure: Plan, Do, Study, Act. This design of these cycles is in service of actionable learning and reflection. In addition to designing the implementation of the change

idea, they should also consider implementation support. Too often change ideas will fail if the people responsible for carrying it out do not have the clarity, time, tools, or conditions they need.



How to Do It:

Action 4 is the work of implementing the Theory of Improvement from Action 3. The team has named an aim, a priority lever, a change idea, and measures. In this action, the team turns that theory into a concrete plan for testing the change idea in practice. The goal is not to prove that the change idea works at full scale. The goal is to learn whether the change can be implemented as intended, whether it is beginning to influence the selected lever, and what needs to be refined before the next cycle.

Use the [Continuous Improvement Cycle Planner](#) as the primary working document for Action 4. The planner guides the team through the full improvement cycle: confirming roles, identifying whether an enabling action is needed, planning the test, preparing for implementation, collecting evidence, studying what happened, and deciding what comes next.

Plan the Cycle:

With your team, begin by returning to the theory of improvement and measurement plan from Action 3 and shift the focus to implementation. An improvement cycle should be small enough to implement quickly and study carefully to determine if scaling the idea makes sense, or not yet. Teams should resist the urge to launch the change idea everywhere at once, rather, they should identify the smallest meaningful test that can generate useful learning. Teams might start with one grade level, one classroom, one counselor caseload, one advisory group, one school, or one small group of students. The test should be small enough that the team can monitor it closely, but meaningful enough that the team can learn something about the change idea.

Before launching an improvement cycle, teams should schedule the time to come back together. The reflection is not an optional add-on; it is the part of the cycle that turns implementation into learning.

Teams should identify when they will review process data, when they will examine leading indicators, and who needs to be present to interpret what happened.

Facilitation Note:

Schedule the reflection before launching. A cycle is only a learning cycle if the team comes back together to study what happened. Before implementation begins, work with the team to name when they will come back together to review process data, leading indicators, and who needs to be in the room.

Do the Change Idea:

Before launching the cycle, teams should consider what implementers need in order to carry out the change idea consistently. Even a small test requires clarity and support. The [Cycle Planner](#) includes an implementation readiness check to help teams clarify that implementers have what they need to test the change idea.

As the change idea is implemented, teams should use the [Cycle Planner](#) to record evidence and observations along the way; capturing evidence during implementation ensures the Study phase is meaningful.

Facilitation Note:

Ask the team to imagine the change idea from the perspective of the person responsible for carrying it out. What would they need to know, have, do, or document for the change to happen as intended?

Study the Cycle:

In the Study phase, teams make meaning of the evidence. The team should consider whether the change idea happened as intended, what helped or hindered implementation, and what students, families, educators, or partners experienced.

This conversation should stay grounded in the evidence gathered through the cycle, including process data, leading indicators, stakeholder feedback, observations, and implementation notes.

Facilitation Note:

Support the team to stay focused on the evidence gathered through the cycle, and ground reflections and “conclusions” through the lens of this evidence (data, feedback, observations).

One of our AR districts was working to facilitate co-planning across the Math and CTE teachers. Through this effort the team identified that the challenges and tradeoffs that arose from trying to join the Math teams' PLC pushed them to revisit the change idea. While the lever of co-planning continued to feel like the right place to focus, ongoing planning resulted in unintended consequences. As a result, the team opted to revise their approach and facilitate discrete sessions to create a crosswalk of the Math standards/skills and CTE standards. Making time for this enabling action will then allow the team to schedule targeted co-planning that explicitly targets overlap, alignment and gaps in the crosswalk over the course of the school year.

Act on the Learning:

In the Act phase, teams decide what to do next: adopt, adapt, abandon, expand, gather more data, or revisit an earlier part of the process.

Teams should avoid expanding too quickly. A promising first test is an indication that the team should test the change effort again under slightly different conditions, not that the change is ready for full-scale implementation.

As teams reflect on an improvement cycle, they will learn if the change idea should be adopted, adapted, or abandoned. They may also learn something deeper: that the selected lever needs to be reconsidered, that an important stakeholder perspective was missing, that another system condition is shaping the problem, or that the problem statement itself needs to be revised. This is not a sign that the process failed. It is the work of continuous improvement. Each cycle should help the team sharpen its understanding of the problem, the system conditions shaping it, and the changes most likely to improve student experiences and outcomes. The goal is not to defend the first theory of improvement; the goal is to learn what it will take to improve the system over time

After completing the Study/Act reflection in the [Cycle Planner](#), teams should return to the workbook to capture the learning summary:

We tested **[change idea]** with **[population/context]** during **[timeframe]**. We learned **[key learning]** based on **[data and stakeholder evidence]**. Our next decision is to **[adopt/adapt/abandon/expand]** because **[rationale]**.

Facilitation Note:

Learning may send the team back into earlier steps in the process. If learning from the cycle sends the team back to an earlier step, help the team treat that as useful evidence. The team may need to return to the fishbone, gather additional data, revise the problem statement, or select a different lever before designing the next cycle.

Conclusion

Improving education-to-career outcomes requires more than access to better data. It requires a clear process for using data to ask better questions, build shared understanding, and test actions that can be refined over time. The E-W Framework helps teams ask more expansive questions about students' trajectories, while continuous improvement helps teams act on those questions in ways that are specific, measurable, and responsive to local context. This work is strongest when leaders engage the people, processes, and tools needed to make information usable—so teams can access relevant evidence, interpret it together, and use it to make timely decisions.

This guide is intended to help system leaders facilitate that process. The work does not end with one problem statement, one theory of improvement, or one improvement cycle. As teams test change ideas, gather evidence, and engage the people closest to the work, they will continue to learn more about the system they are trying to improve. That learning may confirm the current direction, sharpen the change idea, point to a different lever, or surface a new problem to explore. In each case, the goal is the same: to build the habits, routines, and partnerships that allow systems to use data not only to understand student experiences, but to improve them.