EMPOWER

Creating AIMs and PDSAs

Co-Authored by:
Kari Nelsestuen
Jenny Gillet
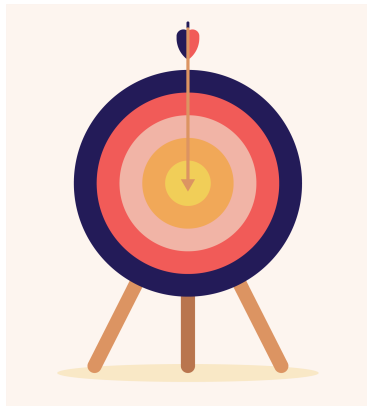Bahia Overton
Julie Smith
Annie Tronco
Erin Whitlock

AIM Statements

It is a mistake to think that moving fast is the same as actually going somewhere. — Steve Goodier
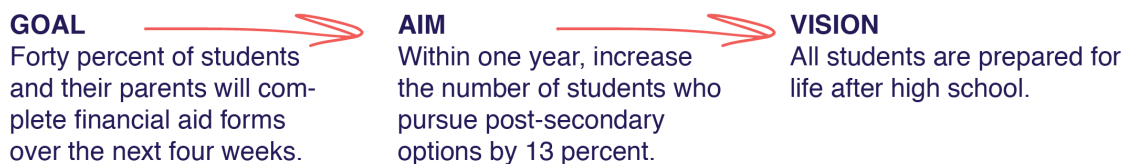
Often, when we have a systemic problem, we respond by throwing changes at the problem and hope that enough of them hit the mark to make a difference. In other words, we practice solutionitis.

One way to fight solutionitis is for teams to have a common aim, a target you know you are heading for. After teams have invested in deeply uncovering the root cause of a problem, including a strengths-based mindset and authentic participation by those whose life stories inform how the system is being experienced, a collaboratively developed target clarifies the community's vision of success. Consider these examples:

- By June 2019, increase from 30 percent to 50 percent the percentage of California Community College students that successfully complete their degree or diploma.
- By December 2020, 90 percent of African American middle school students will agree or strongly agree with the statement, "I feel respected and trusted by the adults in our school".
- By June 2019, increase kindergarten through third grade attendance rates by 25 percent for students identified as chronically absent.
- By January 2020, increase the number of students of color going directly to a four-year college from 34 percent to 40 percent.
- Increase the number of teachers utilizing peer support opportunities from 30 percent to 70 percent by 2022.

A powerful AIM statement can be a team's motivation and inspiration. The AIM statement can bring people on board and focus team members' energy around collective efforts. In addition, an AIM statement serves as an excellent communication tool for explaining your work to those outside your team.

An AIM statement is different from a vision or a goal. A vision sets a collective direction, but it is often large and unspecific. A goal identifies a quantifiable outcome or achievement. An AIM lives between the two, combining the aspirations of a vision and the measurable details of a goal. For example:

GOAL
Forty percent of students and their parents will complete financial aid forms over the next four weeks.

AIM
Within one year, increase the number of students who pursue post-secondary options by 13 percent.

VISION
All students are prepared for life after high school.

EMPOWER

Creating an AIM Statement

Your AIM statement should precisely answer the following four questions in order to make it specific and measurable:
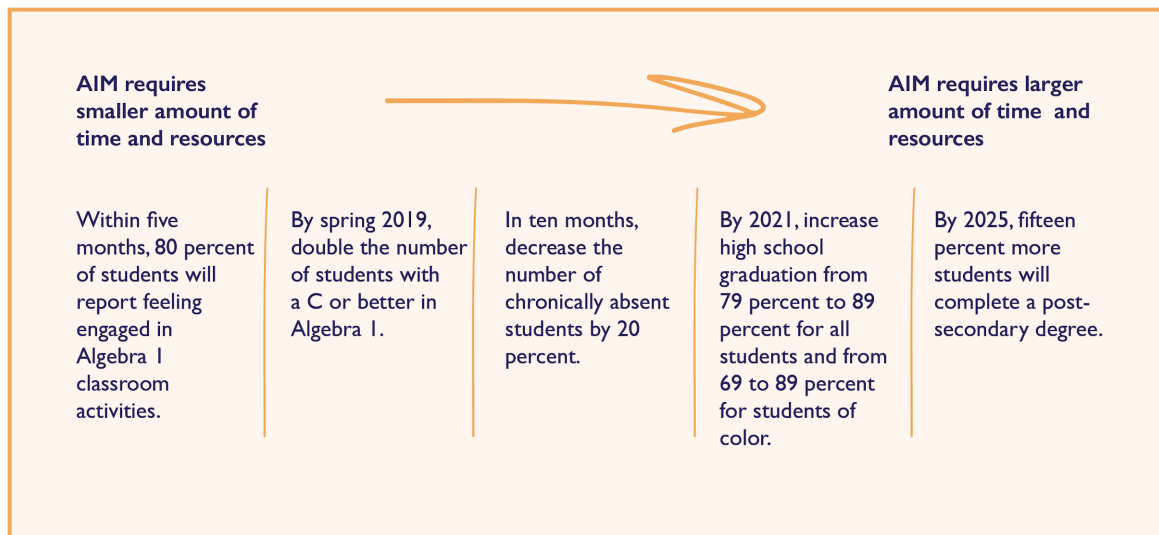
What? What are we trying to change?
By how much? Measurable, specific, and numerical goals.
By when? Time frame.
With whom? Target population, setting, and system to be improved.

The process of creating an AIM statement requires teams to consider several additional questions:

- Who is creating this AIM statement? Who isn't?
- How can we be inclusive of more voices, particularly those who have historically been excluded from the design process?
- Are we focusing on the *why* instead of the *what*? The AIM should be the outcome you expect to see, not the thing you are going to do.
- Is our AIM compelling? For whom? Why? An AIM might be compelling to the team members, but additional feedback from community members could highlight different priorities or provide missing insight.
- Who benefits from this AIM and who does not? Does this AIM guide our efforts in ways that directly address inequities? For example, is our AIM focused on those who have been historically underserved?
- Are we ambitious yet realistic? In other words, can we aim high while still considering the complexity of a particular problem/system and our capacity (e.g, time frame, resources, and team size) to affect change? In the example below, a multi-year, resource-intense AIM on the right becomes smaller as it moves to the left.

AIM requires smaller amount of time and resources				AIM requires larger amount of time and resources
Within five months, 80 percent of students will report feeling engaged in Algebra 1 classroom activities.	By spring 2019, double the number of students with a C or better in Algebra 1.	In ten months, decrease the number of chronically absent students by 20 percent.	By 2021, increase high school graduation from 79 percent to 89 percent for all students and from 69 to 89 percent for students of color.	By 2025, fifteen percent more students will complete a post-secondary degree.

EMPOWER

Measuring your AIM

How will your community know if the AIM is realized? Or if there has even been progress? *By identifying and using appropriate outcome measures.*

The type of outcome measure you need is entirely dependent on what you aim to improve. Sometimes, traditional outcome measures such as test scores or graduation rates are appropriate. Other times you need data from sources such as interviews, surveys, observations, or other less traditional outcome measures.

Thinking about outcome measures can feel intimidating and cause teams to procrastinate from doing so. Our best advice? **Bias towards action.** Identifying outcome measures will help your team clarify and define your outcome. And, because even measures are possibly wrong and definitely incomplete, you can always make adjustments later.
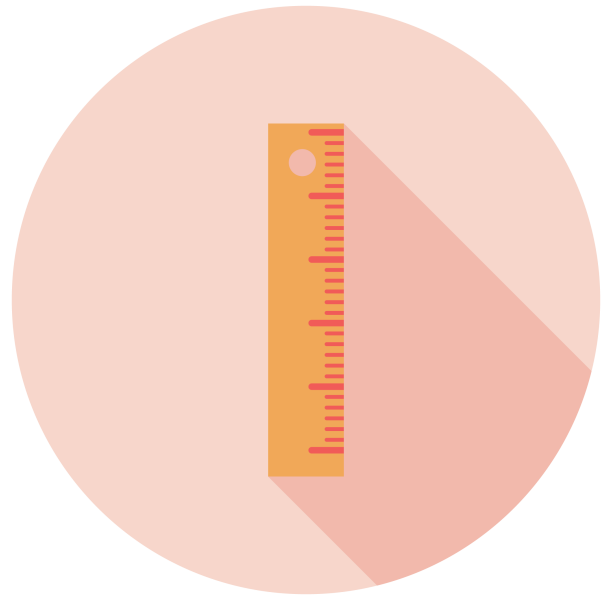
Examples of Outcome Measures

AIM: In one semester, increase the percentage of students who receive a "C" or higher in Algebra 1 from 62 percent to 75 percent.
Outcome Measure: Percentage of students with a C or higher in Algebra 1.

AIM: By spring 2020, every high school student will have a positive and trusting relationship with at least one educator in the building.
Outcome Measure: Student survey items, "There is at least one adult in this school I can trust. (yes/no)" and "My teachers care about me. (yes, all teachers, yes, most teachers, yes, one or a few teachers, no)"

AIM: By December 2020 decrease behavior referrals of African American boys by 50%.
Outcome Measure: Behavior referral rates.

Leading Outcome Measures

Data from most outcome measures are often available only once or twice a year. Yet most improvement teams want to know much earlier if they are making progress towards their AIM. Leading outcome measures allow you

EMPOWER

to see if you are on the right track. They are usually not the same measure as the outcome. Rather, they are a measure that has a strong connection to the outcome.

For example:

AIM: In one semester, increase the percentage of students who receive a C or higher in Algebra 1 from 62 percent to 75 percent.
Outcome Measure: Percentage of students with a C or higher in Algebra 1.
Leading Outcome Measure: Percentage of students scoring 75 or above on bi-weekly Algebra tests.

AIM: By spring 2020, every high school student has a positive and trusting relationship with at least one educator in the building.
Outcome Measure: Student survey items, "There is at least one adult in this school I can trust." and "My teachers care about me. (yes, all teachers, yes, most teachers, yes, one or a few teachers, no)"
Leading Outcome Measure: Staff room list of students where educators place check marks if they know that student well.

AIM: By December 2020 decrease behavior referrals of African American boys by 50%.
Outcome Measure: Behavior referral rates
Leading Outcome Measure: Staff survey of teachers' culturally responsive teaching practices and their perceptions/beliefs about responses to behavior.

EMPOWER

Hints for Facilitating AIM Statements

1 Be prepared. As a coach, sketch out possible AIM statements to anticipate where the group might go. You are not charged with deciding the AIM, but having some examples in your back pocket for the team to react to in "stuck" moments is always helpful.

2 Have conceptual discussions before you work on technical improvements to your statement.

3 Apply an equity lens to your aim. If your district has not adopted an equity lens, here is a link to the lens from Oregon's Chief Education Office.

4 Need a quick start? You can flip your problem statement or flip a single "bone" from your root cause analysis. This should *not* always be your starting point, but it can sometimes help groups launch quickly into an AIM. For example, if your problem statement was, "The discipline referral rate for African American girls is 180% the rate for white girls," you can start by flipping the statement to, "Cut in half the rate that African American girls are referred for disciplinary purposes by ___% between African American girls and white girls."

5 Watch for paralysis by analysis. It can be easy to get stuck trying to identify your how much (65% of students vs. 55%, for example). Consider your statement to be possibly wrong and definitely incomplete and you can adjust it in the future.

6 Take a break or change approach. If your team is stuck, especially on the wording of an AIM, take a break for 10 minutes, 2 hours, or even 2 weeks. Another option is to change your approach. For example, have people work individually on AIM statements, then form small groups to merge into one, then the whole group can merge into one.

7 Gauge team members' enthusiasm along the way. Are people excited about this AIM? If not, are you truly headed in the right direction?

Stay Connected to Your AIM

Your shared AIM should be front and center of your team's work. It serves as motivation for team members, a communication device, and a check on whether you are staying focused and avoiding solutionitis. You might:

- Start every meeting by reconnecting with the AIM
- Create posters of the AIM to have at meetings or in work space
- Brand project documents with your AIM as a header
- Revisit and refine your operational definitions

EMPOWER

Get a tattoo (just checking to see if you're still reading!)

At the same time, remember that your AIM is *possibly wrong and definitely incomplete*. New information will arise or new voices will surface that require you to revisit the who, what, when, and by how much of your AIM. Sometimes these changes are minor: changing your target from 55 to 45 percent, or from 55 to 65 percent. Other times, the changes are much larger. In one project, for example, the initial AIM was to improve graduation rates across the school. As they studied the problem more deeply and heard from the school community, they realized they needed to start with a focus of building strong relationships between members of their school community. They narrowed their AIM accordingly.

EMPOWER

Plan-Do-Study-Act

Growing is the result of learning. — Malcolm X

In today's world, everything feels urgent. In response, too much is asked of us in too little time. In an effort to keep up with all of the needs around us, we keep planning and doing over and over again. Too often, we place the most value on the *quantity* of things accomplished, rather than whether those things lead to improved outcomes.

If we are truly on a journey to continuously improve, we must nurture a culture of inquiry where asking questions - even difficult questions - is valued. In this culture, perceived failure and flaws are seen as opportunities to learn and improve. This improvement mindset centers around the question: **How do we know that our change is an improvement?**

The Plan-Do-Study-Act (PDSA) cycle can be the main vehicle for answering this question. PDSAs provide discipline and structure to our inquiry. The process enables us to test out changes on a small scale, build on the learning in a structured way, and try various contexts before full implementation. And PDSAs help teams make data-based decisions that avoid one-size-fits-all solutions.

As shown in the figure below, a PDSA cycle is a series of four steps:
Plan. Formulate a change idea with a specific hypothesis, make predictions, and design a study
Do. Carry out the change idea, documenting who carried out what, when, and how
Study. Collect and analyze data about implementation of your change idea and the outcomes
Act. Apply learnings to decisions about whether to adapt, adopt, or abandon a change idea. Plan for the next cycle

EMPOWER

Do
What actually happened

Study
Inferences about next steps

Plan
Change ideas & predictions

Act
Next steps

Usually multiple PDSA cycles are needed to develop a change idea that actually works. Each cycle builds on learning from the previous cycles by fine tuning adaptations and scaling up at an appropriate pace.

Need more of an overview on PDSA's?

- Watch this IHI video for an introduction and their second video for an explanation of moving a PDSA from testing to scale
- Read a PDSA case study in *Learning to Improve*, page 122-131
- Check out this blog post

EMPOWER

Plan your Change Idea

"Different" is not the same as "an improvement." (*The Improvement Guide,* p 111)

We are used to planning many things, every day, all the time. In a PDSA, planning requires intentionality, clarity, and details for both your change idea and how you will study the change. Clear communication, an inclusive table, and equity of voice remain critical qualities throughout the cycle.

Before you begin planning, make sure you are using a PDSA for the right purpose: to test a new change idea. Some teams mistakenly apply the PDSA process to situations that don't fit, such as collecting data to understand a system, pre-work to determine a change idea, or the evaluation of a one-time event. Not everything requires a PDSA.

Ready to start? Consider the developmental stage of your team (see Coaching PDSAs section later in this guide) and choose a planning tool or method that makes sense:
More formal: Use or modify this form
Less formal: Document your plan on a simplified tool or even just a poster (Example)

Documentation helps ensure that the team has a common understanding of implementation and data collection. It also serves as a repository for what you learn.

Planning Change Ideas

What are we going to do? That question is a common response to the need for action. But by asking what to *do*, we risk jumping to action on any idea that sounds reasonable, or we layer even more solutions on top of our existing system. In continuous improvement, the question we want to ask is: what are we going to *change*?

A **change idea**, then, is a change to our system. That includes changes to system components (structures, tools and materials, people, norms/policies, relationships, etc.) and how those components work together in a process.

Change ideas might be formed early and often in your improvement process, or they might require time and analysis to develop. Regardless, most change ideas should have one or more of these origins:

1 **Human-centered design**. What ideas arise from deeply understanding the experiences and needs of the community?

2 **An investigation of the problem and the system**. What ideas arise from data review, system mapping, and/or root cause analysis?

EMPOWER

3 **Content knowledge**. What do we know about this topic from academic literature and/or content experts?

4 **Practice knowledge**. What have other organizations done?

5 **Design/creative thinking**. What new human-centered solutions might we try?

Not every change idea is created equal. Sometimes, teams can fall in love with a change idea for the wrong reasons, especially when we feel compelled to bias towards action too quickly. Other times, the pressure to move to action - especially in contexts where the value is "doing" - drowns out community voices or input from multiple perspectives. Step back from your change idea and examine these questions:

- **Who informed this change idea?** How have members of the community been engaged as co-creators of change ideas? Whose voices inspired the change idea? Who had input? Who didn't?

- **What informed this change idea?** Is this change idea connected to research or content knowledge? Maps of your system? Practice knowledge? Lived experience? Who was involved in generating that evidence? How does that impact our confidence in the power of the idea?

- **Does the change idea require *systems change*, not systems add-on?** Will it make a change to one or more of the components in your system (structures, tools and materials, people, norms/policies, relationships, etc.)? Which ones? Does it change the ways system components interact with each other?

- **Have we considered the *who?*** Did our design process focus on the needs of those who have been historically underserved by our systems? How might this change actively or indirectly reproduce inequity?

You might feel a tension between these questions and the mindset of "bias towards action." While the questions aren't meant to cause paralysis by analysis, they are important considerations that help keep your team from straying too far down the wrong path.
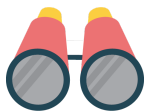
Plan Look Fors

The PDSA Look Fors document lists characteristics of a quality PDSA at all stages. Below are several criteria for the Plan stage with added details, examples, and questions.

1 **The goal of our change idea is clear.** The goal should be the outcome you expect to see as a result of implementing the change idea. In other words, it is the "why" of your action. The goal is not the solution

EMPOWER

itself, nor is it an explanation of the AIM. It should be a short and clear prediction of the outcome. For example:

Change Idea: Peer-to-peer texting when a student is absent.

Goal: Increase attendance in math class by 20 percent.

Change Idea: One-on-one advisory sessions for middle schoolers with at least one failing grade.

Goal: Decrease the number of D's and F's for participating students by 40 percent.

2 **We can articulate how the change idea impacts the AIM and whether that is a proximal (close) or distal (far) relationship.** Some change ideas directly impact your AIM. That is, they are very proximal to the ultimate outcome. Other change ideas are important but may be several steps removed from the outcome. We call those change ideas distal. Can you describe the connection of your change idea to the AIM without too much of a stretch? If you are always working on distal ideas, you likely need to revisit your AIM statement (it may be too large or ambitious) or reconsider your change ideas.

Proximal- directly impacts AIM ⟶ Distal- further removed from AIM

3 **We clearly detail the who, what, where, and when of our change idea so that everyone has a shared understanding of what we are doing.** This might seem like the most straight-forward criteria, but it is often what causes the most discussion. What, exactly, are we doing? Does everyone have the same understanding? What will it look like? Who is responsible? When will it get done? What do we have to develop as part of our change idea? Is that really feasible? To check for clarity, give your implementation plan to an outsider and see if they can explain the plan back to you.

4 **We are starting small.** Continuous improvement requires that we start small and not at-scale. Why? Starting small allows our team to:

- Bias towards action. You can jump in quickly and test an idea, rather than spending months or years "best-guess" planning for a system-wide rollout.

- Fail forward and learn. When you start small, the price of failure is much lower than starting at scale. If we embrace a growth mindset and celebrate what we learn from our failures, our change ideas will keep improving.
- Adapt quickly. Starting small means you can learn and make adjustments quickly.
- Abandon ideas that aren't working. Why spend time and money on an idea that isn't the best for our context?
- Pay close attention to variation. For whom is this change idea working? For whom is it not working?

EMPOWER

What can starting small look like?

- One principal and one student testing a one-on-one advisory for students with failing grades
- One classroom with 30 students testing a texting initiative to increase attendance
- Twelve teachers in four schools across one district implementing community circles in the morning
- One PLC testing participation protocols to increase teacher agency

See the upcoming "Act" section for a discussion of scaling up after starting small.

5 **Our PDSA cycle can be accomplished in a short amount of time.**
When you start small, you can also test quickly. A single PDSA cycle can last as long as 90 days, but can also be as short as 20 minutes. Most change ideas - or aspects of a change idea - can be tested within a few weeks.

Common PDSA Planning Challenges
- PDSA is not the right tool or approach for our question
- Mismatch of measures to questions or data that aren't useful
- Lack of capacity to collect, manage, analyze data
- Not all voices are heard or valued
- Change idea is not as strong as it could be
- Change idea is not specific
- Goal is not a goal
- Questions won't help our learning
- Spend too much time on planning

EMPOWER

Plan your Study

How do we know that our change is an improvement?

Study. Research. Measurement. For many teams, these terms can raise anxiety, alienate team members, or simply kill the mood of a good change idea. There are good reasons for that. Traditionally, measurement has meant high-stakes accountability and little usefulness in day-to-day operations. And, it has traditionally required external research expertise.

In contrast, "Study" in a PDSA is designed for improvement. We study our change ideas in order to get better at getting better. These measures are low-stakes, practical, and easy to use. Team members themselves, with scaffolded support as they learn, can almost always design the study questions and measures themselves. (Read chapter 5 of *Learning to Improve* or download Practical Measurement.)

The Study phase has three components: 1. Questions; 2. Predictions; 3. Measures. The rest of this section offers a suggested process for developing your study plan. However, if you are coaching a team that is new to PDSAs, you should consider further shortcuts or scaffolding to help the team move forward.

Process for planning your study questions, predictions and measures:

Brainstorm questions → Prioritize questions → List potential measures → Pick/develop measures → Predict answers → Plan the details

Step 1. Brainstorm questions. Asking good questions about your change idea - and being genuinely curious about their answers - is evidence of a healthy culture of inquiry. Begin by brainstorming all the possible things you want to know.

Until a team has a strong question-asking muscle, they'll likely need support as they generate questions. Try these things:

- Provide question examples. For teams newer to the process, provide examples
- Give team members independent writing and thinking time
- Prompt team members to brainstorm both outcome questions (what is the evidence that we met/didn't meet our goal?) and implementation questions (what actually happened?)
- Prompt the team to consider variation in their questions (e.g., was the outcome different for different groups of students?)
- Brainstorm questions from the lens of others in the community. Or ask others what they'd want to know.

EMPOWER

- Prompt teams to consider questions that uncover bias (e.g. What assumptions and biases have been uncovered through our PDSA cycles? How have our beliefs or understandings changed?)

Step 2. Prioritize questions. Have teams choose the one to three questions they want to consider first. Help them:
- Analyze question usefulness. Which questions will yield the most useful information to help your team move forward? Where will the learning be greatest? Which questions prioritize students, families, and communities engaged as improvers reflecting on changes? Get rid of questions that provide some interesting information but won't inform next steps. Turn yes/no questions into open-ended or scale questions.
- Start simple. Early PDSA cycles should answer fundamental questions (e.g., What did it look like? What was clunky? Did people like it?), saving more sophisticated questions (e.g., How were the outcomes different for different people?) for subsequent cycles.
- Be realistic. Consider your team's capacity to collect data and answer questions.

Step 3. List potential measures. For your top few questions list *all* of the ways you might answer the question. Usually there are at least two ways, often three or four. Methods for answering questions include:
- Counts (how many)
- Frequency (how often)
- Review of artifacts (notes, agendas, etc.)
- Observation
- Interviews or focus groups
- Perception surveys
- Outcome data (grades, attendance, graduation, assessments, etc.)
- And more

Step 4. Pick a measure. From the list of potential measures, pick the measure(s) that balances rigor (best way to answer the question) with feasibility (ability to create and implement the measure with the resources you have). Sometimes the scale tips towards feasibility, but, over time, you should push towards rigor.

Step 5. Predict answers. With your questions and measures ready, predict the results. Your predictions should be primarily positive and be inclusive of diverse community voices. If your prediction is negative (e.g., only 20 percent of users will like this), then perhaps you need to revisit the change idea itself.

Step 6. Plan the details of your study. Just as you had to plan the details of your change idea, you must plan the details of your study:
- What are the specific measures or how will you develop them?
- Who will collect the data? Analyze the data?
- How and where will you record the data and who will organize it?
- What's your timeline?

EMPOWER

Don't forget that, just like our change ideas, our measures are *possibly wrong and definitely incomplete.* Plan to debrief what you learned about your study.
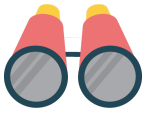
Study Look Fors

Ultimately, we want our study plan to have the following Look Fors:

- Our questions are useful; we can learn from the results.
- Our questions include inquiry about both outcomes and implementation.
- Our predictions are clear and positive.
- Our measures are a good match for our questions.
- Our data collection plan is clear. We know the specific data we need and how/when to collect it.

EMPOWER

Do and Study

It's time for all of your detailed and thoughtful planning to pay off. Implement your change idea and study it along the way with these Look-fors in mind:
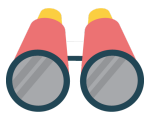
We carry out the plan as intended and record any modifications to the plan.
Remember the old game of Telephone? A message begins as clear, but is slowly modified as each new person interprets and repeats what comes to them. The same is true for change ideas. While everyone might have thought the plan was clear, it's important to keep track of what actually took place and expect variation. This in itself is a way to measure implementation.
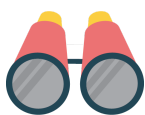
We collect, record and organize data from our tests.
Remember that PDSAs are a *disciplined* approach to improvement. This requires that we document what we are learning. How are your data collected, recorded and organized so that they are complete, accurate, and secure? Use shared tools like google sheets, forms, or docs to help along the way.
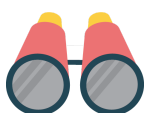
Our data is organized and prepared for analysis.
Preparing data means both cleaning data and conducting any pre-analyses before the team review. "Cleaning" data might mean recoding messy data, removing names or other identifiers, or making formats consistent. Even with a clean data set, your full team might not have time to review raw data. Are there analysis steps that can happen prior to a team analysis? (For example: coding qualitative data into themes; creating visual displays of findings; analyzing the data by different groups or contexts.)
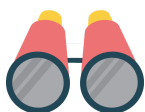
We have sufficient time and a protocol for reviewing the data from this PDSA.
The amount of time you'll need to review your data depends on the amount of data, the size of your team, the amount of variation, and the complexity of your questions and findings. Applying a data review protocol will help your team review the data and compare to predictions. Examples include: Improvement Collective's Data Meeting Protocol, SRI's Data-Driven Dialogue, National School Reform Faculty's Examining Data protocol, or High Tech High's Digging into Data protocol.
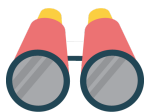
We compare our findings to our predictions, study variation, and continually ask "why."
The predictions you made during the Plan phase laid out your hypothesis of what would happen. What if your hypothesis doesn't come true? Discrepancies between predictions and observed

EMPOWER

outcomes become a source of learning so make sure you don't just look at the data, but compare the findings to your predictions.

In every PDSA we must also attend to **variation**; not just the overall results but how and why the results varied in different contexts and for different people. In other words, the critical issue is not what works, but rather what works, for whom and under what set of conditions.

The authors of *Learning to Improve* sum up the importance of variation this way:

> *Achieving improvement at scale is not about what works on average. It is about getting quality results under a variety of conditions. Understanding the sources of variation in outcomes, and responding effectively to them, lies at the heart of quality improvement.*

For more information on variation, read chapter 2 of *Learning to Improve*, Or, learn about it **with candy** by watching this video followed by this video.

EMPOWER

Act

The Act stage of a PDSA is designed to use information from Do and Study to answer these questions:
- What did we learn?
- Should we adapt, adopt, or abandon our idea?
- What are our next steps?
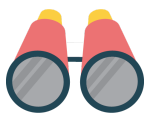
The first Look For in the Act stage is: *There are diverse perspectives in our discussion and decisions*. It continues to be critical to ask who is at the table, who is not, and what the implications of your answers might be. Multiple perspectives will better inform decisions to adapt, adopt, or abandon the idea.

Adapt. Make a change. Hopefully you learned things about what worked well and what was clunky, cumbersome, or ineffective about your change idea. How might your idea be improved? Adapting your change idea might mean a few tweaks or a major overhaul. Just like with your first idea, embrace "possibly wrong and definitely incomplete" for your adaptations, too.

Adopt. Keep the change as it was tested. If your team members are all satisfied with the impact and implementation of the change idea, then it is time to make it a permanent change.

Abandon. Let it go. There are multiple reasons why you might abandon an idea:

- It did not produce the changes you hoped to see.
- It produced some changes but had negative unintended consequences.
- Unexpected barriers came up that are too hard to overcome such as high costs or low enthusiasm

Regardless of your decision, make sure you can provide a shared rationale for your decisions. This is another Look For criteria: *We can provide rationale for our decision to adapt, adopt, or abandon our change idea.*

What's Next?

PDSAs are designed to move from one cycle to the next, iterating an idea and testing it in new contexts. Testing in cycles allows your team to:

- Learn fast to implement well
- Focus on variation
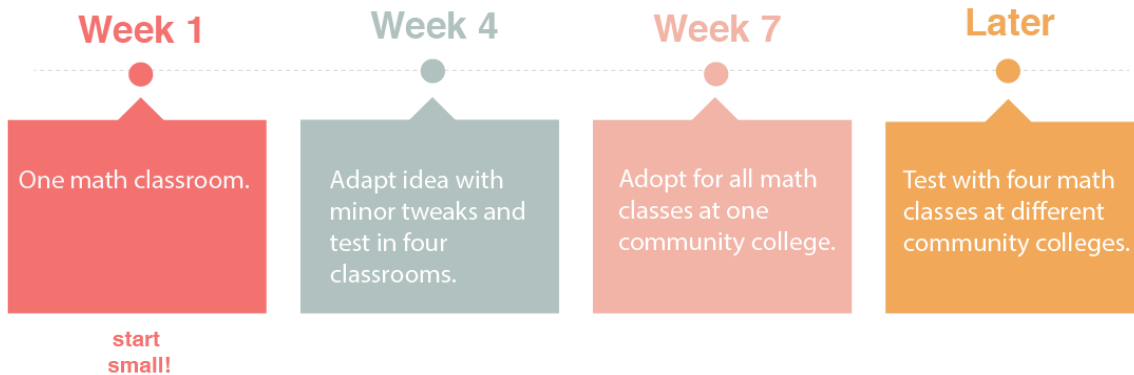- Lower the cost of failure

Ideally, your change idea is first tested at a small scale. What you learn from the first PDSA leads to iterations of the change idea and tests in new and/or larger contexts (see figure below). Only when you have solid evidence of success from multiple contexts are you ready to move to wide-scale tests of change and then to a fully scaled change idea.
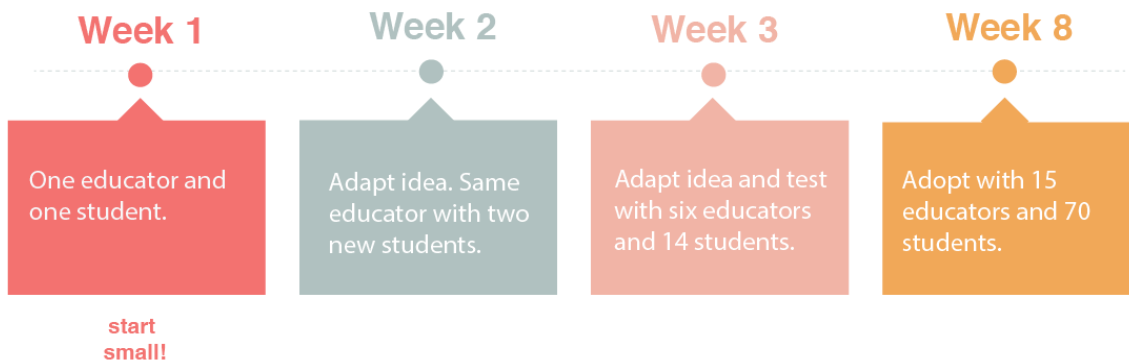
The Improvement Science Way

EMPOWER
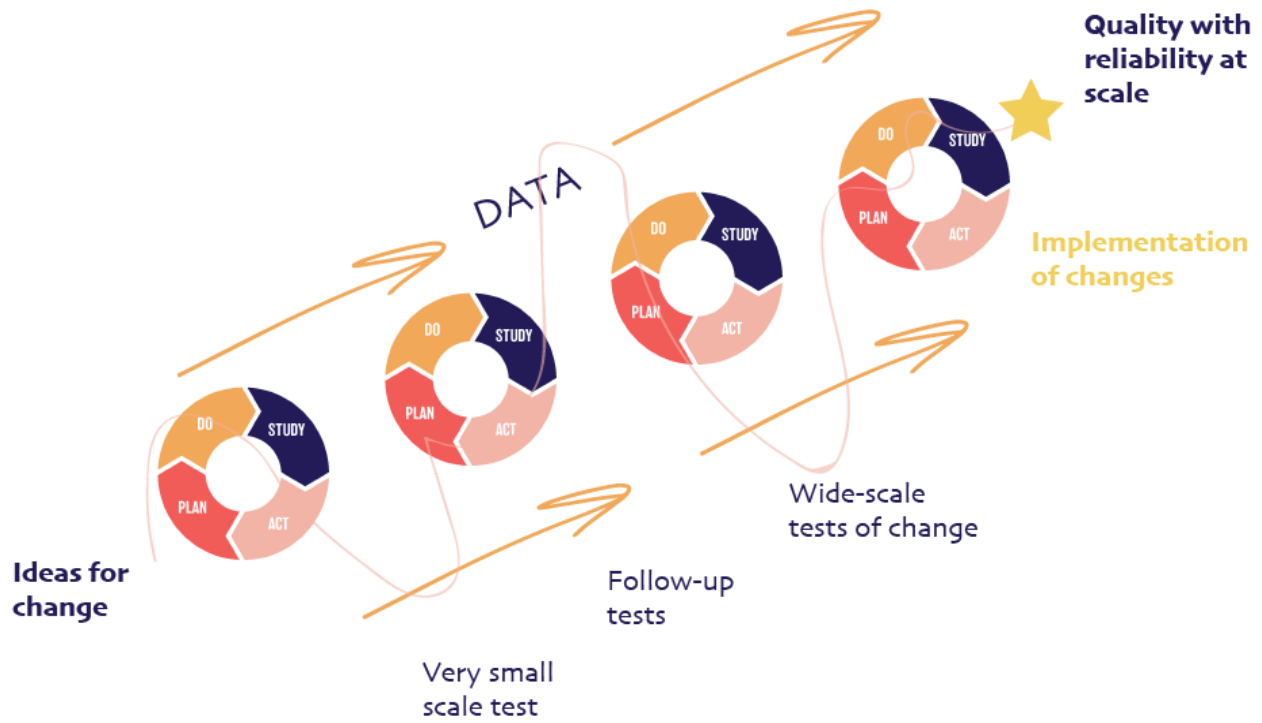
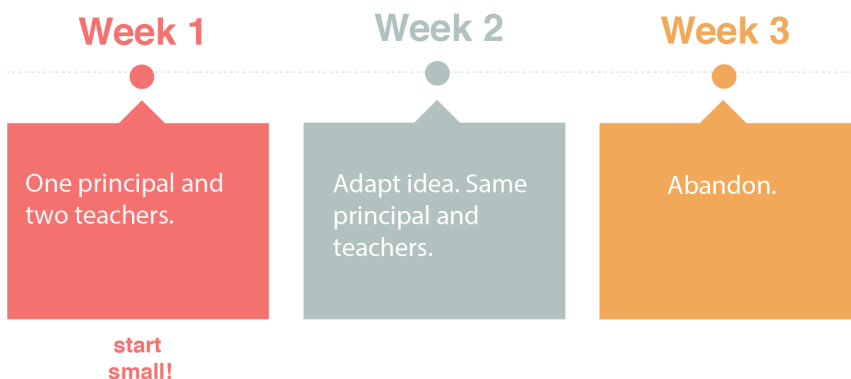Below are three examples of a change idea that is tested over multiple cycles.

Change idea: Peer-to-peer texting to increase attendance in community college math classes

Week 1	Week 4	Week 7	Later
One math classroom.	Adapt idea with minor tweaks and test in four classrooms.	Adopt for all math classes at one community college.	Test with four math classes at different community colleges.

start small!

Change idea: One-on-one advisory sessions for middle school students failing at least one class

Week 1	Week 2	Week 3	Week 8
One educator and one student.	Adapt idea. Same educator with two new students.	Adapt idea and test with six educators and 14 students.	Adopt with 15 educators and 70 students.

start small!

Change idea: Lesson plan review teams

Week 1	Week 2	Week 3
One principal and two teachers.	Adapt idea. Same principal and teachers.	Abandon.

start small!

EMPOWER

How many successfully tested change ideas might you need to meet your AIM? *More than one*. Unlike traditional "silver bullet" approaches where you buy a single program or package, continuous improvement involves testing multiple change ideas that impact your AIM. Pull out your root cause analysis from your study of the problem. Over time you'll need to develop a package of change ideas that impacts each of the root causes.

Missteps in PDSA Scale-up

*Moving from one small test to full implementatio*n. Continuous improvement emphasizes multiple iterations and learning/adapting as you go. It is not a traditional "pilot" program that then goes to full scale.

- **Staying small for too long.** Any idea can be tweaked over and over. Consider if you've learned *enough* to move on to larger tests.

- **Testing only one change idea.** While you will start with testing one change idea, your team needs the capacity to run multiple tests at the same time.

- **Bias or power at play.** Are there people in your system who prevent changes from being sustained and expanded or make decisions to scale too quickly?

- **Discomfort in variation.** Many people think that an idea has to look the same everywhere in order "have fidelity" or to "be fair." But one change idea does not fit all contexts. What are the modifications that are promoted and supported in order to have success in different contexts?

- **"Abandon" too soon or too late.** Some teams give up too quickly on a good idea when they could have tried an adaptation. Other teams hang on to ideas, especially "pet" ideas, for far too long. A coach can help teams identify if they have either tendency *and* help celebrate failure as learning opportunities.

A note. It isn't always possible to start small. Sometimes system-wide mandates, ethical considerations, or funding requirements require change ideas to be implemented at scale. If this happens, it is even **more** critical to study the change and make adjustments as quickly as possible along the way. If you start at scale, you can still:

- Make sure you have clear goal(s) and predictions about the changes
- Design a study plan to answer critical questions. Work in short study cycles, even if the mandate is for a full year. You do not have to start by measuring everything across the entire system (that would be exhausting!). What can you learn by randomly selecting participants or sites to study?
- Pay particular attention to implementation. What is implemented and modified? By whom? How do users in the system interpret the expectations? Carry them out?

EMPOWER

Coaching Plan-Do-Study-Acts

The coach's main role deals with expanding the ability to see contexts, rather than supply content. The person being coached then sees new ways to utilize existing skills. -Julio Olalla

Building team capacity to plan and conduct PDSAs takes practice. As the table below illustrates, most teams move through stages of PDSA practice from novice to advanced. Where is your team?

Stages of PDSA Practice

Stage	Description	Coaching Stance
Novice	New to PDSAs. Evidence of a culture of inquiry or PDSA mindsets may or may not exist yet.	Directive
Beginner	Understand the purpose and process of PDSAs. Have experienced at least one cycle. Growing evidence of a culture of inquiry and PDSA mindsets.	Directive
Experienced	Understand how to develop and implement a full PDSA but need support to deepen quality. Have experienced multiple cycles. Believe in the mindsets and importance of inquiry.	Facilitative
Advanced	Understand how to develop and implement a full PDSA and can attend to the quality of all stages, including measurement. The mindsets and a culture of inquiry are present.	Facilitative
Coach	Deep understanding of the qualities and processes of PDSAs. Ability to coach teams at any of the other stages.	That's you!

The table also indicates which coaching "stance" you would usually adopt in this stage: Directive or Facilitative.

In a **directive stance** the coach creates a safe and secure climate so that he or she can push the learning of those being coached. A directive stance might include *informing* which means meeting people where they are at in their learning, gradually releasing responsibility, and offering a selection of resources. In a directive stance the coach might also *disrupt* or *confront* which might include modeling and rebuilding mindsets, interrupting and shifting deficit thinking, or presenting data that is not being noticed.

In a **facilitative stance** the coach pulls those being coached toward learning. From the facilitative stance the coach guides and helps by affirming the value in processing, nudging gently through questions, and supporting

EMPOWER

with authentic and specific noticings of growth.

These two stances illustrate two ways a coach might work with a group. Coaches move back and forth between these two stances and even within a single stance since there are varying degrees of being directive or facilitative. The goal is always to enable your group to work effectively and make progress. Which stance you choose is determined by who you are working with, where they are in their process, and what you are hearing. And, in either stance you will need to call upon skills and knowledge from our Coaching 5: Group dynamics, listening, questioning, "feedbacking, "and reflecting.

For continued learning on coaching stances, see:

- *The Art of Coaching* book by Elena Aguilar and Overview of the Coaching Stances
- *Three Modes of Facilitation* in *Designing & Facilitating Meetings for Equity*, National Equity Project

Coaching Novice or Beginner Teams

Novice and beginner teams can easily be overwhelmed by all of the demands of a PDSA. A coach can help prevent the overwhelm by taking a directive stance to:

- Simplify and scaffolding the process
- Model mindsets such as fail forward and learn and start small
- Take on some of the work behind the scenes
- Limit feedback to the most critical things for the team to progress
- Help teams to start with a simple change idea that can be implemented quickly and have a high likelihood of success
- Allow people to implement their change idea without immediate critique of the idea's quality
- Redirect teams who are using a PDSA when they don't need one (see introduction to PDSA section)

Coaches, listen up! Pre-teaching team members about PDSAs is not always necessary. With you as their guide, teams can experience the PDSA process without even knowing that's what they are doing. In other words, the team can *live it before you label it*. This approach requires you to scaffold the PDSA experience for teams using a few simple questions (and no form or a simple form) in non-PDSA language such as:

- What are we going to do?
- Why are we doing this?
- How will we know if anything changes?
- Can we collect some information about that change?

Then, provide supports as the team moves into implementing their change idea. Bring the team back together to discuss the data collected and ask, "What did we learn?" and "What are we going to do now?"

EMPOWER

There are times when you might want to pre-teach concepts and processes of a PDSA before you begin. Pre-teaching will give team members an overview of PDSAs. However, teams will still need scaffolded support to build their own PDSA.

Pre-teaching can happen through simulation games such as The Coin Spin or Mr. Potato Head. You might also share readings and videos such as:

- This IHI video for an introduction and their second video for an explanation of moving a PDSA from testing to scale
- Learning to Improve, page 122-131
- This blog post

Coaching note

You don't always have to start with the P! Is your team already implementing a change idea? Start with "S" and choose questions, predictions, and measures. Have you collected a lot of data about something you're already doing? Call a data analysis meeting and start with the A.

As teams advance in their experience and understanding of PDSAs, give them time to identify and discuss strengths and needs in PDSA examples (here are a few examples you could use). This allows teams to become more familiar with the Look Fors in order to apply the same criteria to their own PDSA.

Providing Feedback to Teams

All PDSAs - even the most advanced - have room for improvement. As a coach, you must narrow down all of the possible feedback you could give to just a few things that will help the team improve. Too much feedback will overwhelm teams and make it difficult to bias towards action. Too little feedback will make progress slow. Think through these four feedback steps:

1 **Celebrate a strength**. Identify the process or mindsets where the team is hitting the mark or has shown the most growth.

2 **Identify potential improvements**. As a coach, use the Look Fors Tool to identify what feedback you might want to give your team.

3 **Decide what feedback will push the work forward**. Out of all the possible feedback, what is most relevant to what the team needs now? A novice team, for example, might need focused feedback on the goal of

EMPOWER

their change idea while a more experienced team might need feedback on the match between their measures and questions. Limit the amount of feedback.

4 **Decide your coaching stance**. How will you deliver feedback? In a directive stance, a coach can point out what needs attention. For example, ""Your timeline is twelve weeks. How might we make that shorter?" In a facilitative stance, a coach's questioning can guide the team to their own ah-ha moments. For example, "Tell me about the twelve-week time frame. Why did you set that time frame? Is there another possibility?" Another facilitative approach is to have the team use the Look Fors document themselves and insert coaching questions only as needed.

The Coaching Framework & Resources Guide contains several feedbacking tools to use behind the scenes (directive stance) as a coach of novice or beginner teams, or have the teams use more autonomously (facilitative stance) if they are more experienced. Since some of the most powerful feedback comes in the form of questions, check out the question stems in The *Guide to Probing Questions in Protocols,* page 62, in *Designing & Facilitating Meetings for Equity,* National Equity Project.

Of course, in order to provide feedback, you must first know PDSA concepts and process well yourself. Study up, confer with other coaches, and engage in your own PDSA experiences.

EMPOWER

Support Systems for Plan-Do-Study-Acts

It's not about having time. It's about making time. If it matters, you will make time. -Unknown

PDSAs do not happen by themselves. Just as a change idea requires systemic change, we also must not make PDSAs "one more thing to do." How can continuous improvement cycles become the way we do business? We can attend to three things: culture and mindsets, PDSA knowledge and practices, and the supports we have in place for PDSAs.

The criteria below illustrate many of the conditions and system components that need to be in place for continuous improvement to thrive. As a coach, you can use this tool with your team to assess the strengths and needs of your system of support.

Culture and Mindsets
- Our team is curious and constantly asks questions; even hard ones.
- Our team believes in a disciplined approach to continuous improvement.
- Our team believes in and understands how to start small.
- Our team embraces *and* practices "fail forward and learn."
- Our team believes it is important to attend to uncovered biases and assumptions.

PDSA Knowledge and Practice
- We know when to use PDSAs and when not to.
- Team members have a good understanding of the why, what and how of PDSAs.
- PDSAs *truly* inform decisions to adapt, adopt, or abandon change ideas.
- There is at least one PDSA going on almost all the time.
- We continue to use PDSA cycles as we test in new contexts and scale up.
- Our PDSAs incorporate the principle of variation - we study what works, for whom, and under what conditions.

PDSA Supports
- Leadership understands, supports, and engages in PDSA practice.
- We have structures that provide sufficient time to run PDSAs.
- We have PDSA expertise in our system; people who can serve as coaches, critical friends, or advisors.
- We have structures and capacity to collect and analyze data.
- We have identified other conditions and supports that our critical to supporting PDSAs as regular practice.

EMPOWER

Plan-Do-Study-Acts Look Fors

This tool is designed to apply to a single PDSA. Coaches and advanced teams should consider the entire tool. Teams that are newer to PDSAs should pick a few criteria at a time to consider.

	Not really	Somewhat	Definitely
We are using a PDSA for the right purpose: to test a new change idea. We do not use a PDSA for other actions, such as collecting data to understand our system, pre-work to determine a change idea, or the evaluation of a one-time event.			
PLAN: Change idea			
Our change idea was developed based on understanding the experiences and needs of our community as well as understanding our system, research, and/or practice knowledge.			
The goal of our change idea is clear.			
We can articulate how the change idea impacts the AIM and whether that is a proximal (close) or distal (far) relationship.			
We clearly detail the who, what, where, and when of our change idea so that everyone has a shared understanding of what we are doing.			
We are starting small.			
Our PDSA cycle can be accomplished in a short amount of time.			
PLAN: The Study			
Our questions are useful; we can learn from the results.			
Our questions include inquiry about both outcomes and implementation.			

EMPOWER

Our predictions are clear and positive.			
Our measures are a good match for our questions.			
Our data collection plan is clear. We know the specific data we need and how/when to collect it.			
DO and STUDY			
We carry out the plan as intended and record any modifications to the plan.			
We collect, record, and organize data from our tests.			
Our data is organized and prepared for analysis.			
We have sufficient time and a protocol for reviewing the data from this PDSA.			
We compare our findings to our predictions, study variation, and continually ask "why."			
ACT			
There are diverse perspectives in our data analysis and decisions.			
We can provide rationale for our decision to adapt, adopt, or abandon our change idea.			
We develop next steps as part of Act which may include scaling up, testing in new environments, or testing an adapted idea.			
We discussed what we learned about our measures themselves and can apply our insights in the future.			
Other criteria:			

Comments about any of the above:

EMPOWER