

PDIA *toolkit*

A DIY Approach to Solving Complex Problems



BUILDING STATE CAPABILITY
Center for International Development
at Harvard University

PDIA *toolkit*

A DIY Approach to Solving Complex Problems

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About Building State Capability

Building State Capability (BSC) at the Center for International Development (CID) at Harvard University researches strategies and tactics to build the capability of organizations to implement policies and programs. The BSC faculty, Matt Andrews, Lant Pritchett and Michael Woolcock, have developed Problem Driven Iterative Adaptation (PDIA), a step-by-step approach which helps you break down your problems into its root causes, identify entry points, search for possible solutions, take action, reflect upon what you have learned, adapt and then act again. It is a dynamic process with tight feedback loops that allows you to build your own solution to your problem that fits your local context. PDIA is a learning by doing approach.

The PDIA approach rests on four principles:



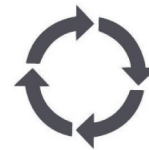
Local Solutions for Local Problems

Transitioning from promoting predetermined solutions to allowing the local nomination, articulation, and prioritization of concrete problems to be solved.



Pushing Problem Driven Positive Deviance

Creating (and protecting) environments within and across organizations that encourage experimentation and positive deviance.



Try, Learn, Iterate, Adapt

Promoting active experiential (and experimental) learning with evidence-driven feedback built into regular management that allows for real-time adaptation.



Scale through Diffusion

Engaging multiple agents across sectors and organizations to ensure reforms are viable, legitimate and relevant.

How to use this toolkit

The *PDIAtoolkit* is designed to guide you through the process of solving complex problems which requires working in teams. We call it a *Do-it-Yourself* (DIY) kit, where the ‘you’ is a committed team of 4–6 people mobilized to work together to solve a complex problem that cannot be solved by one person.

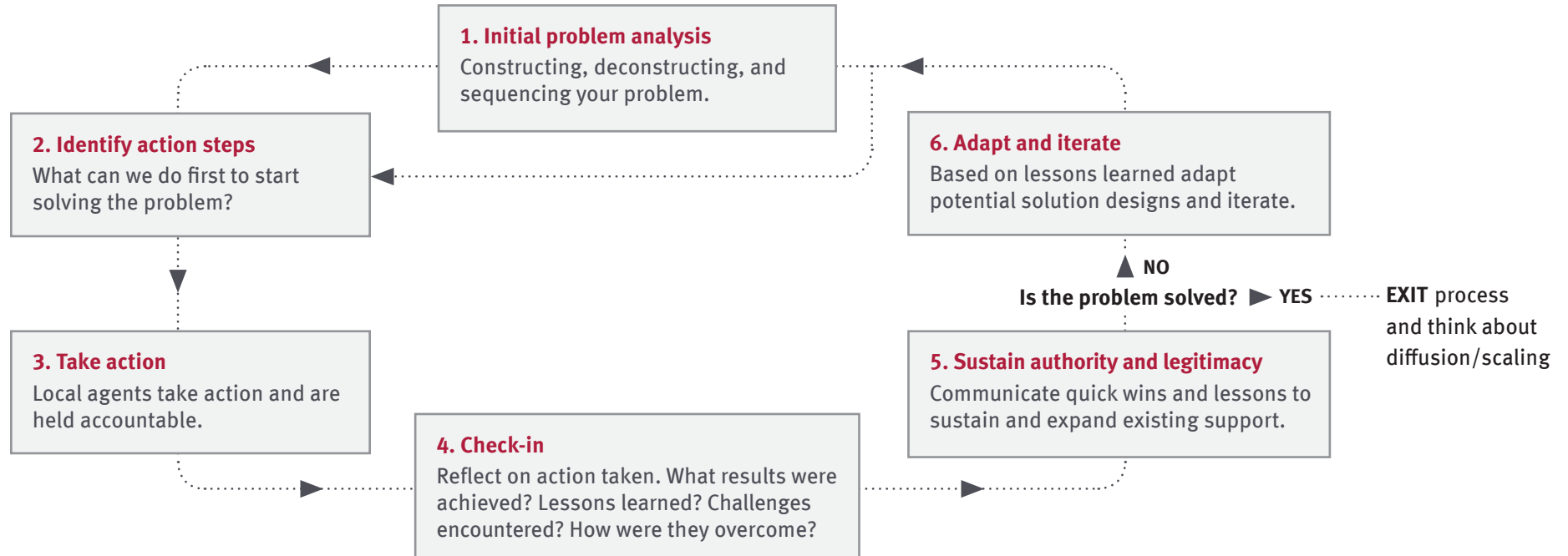
While the PDIA process is not linear, we recommend that you first read this toolkit in sequence to understand the steps. The toolkit has eight sections. Each section introduces a new concept and has one or more worksheets which are the tools to help you try PDIA for yourself. All the tools are dynamic and should be reviewed and adapted on a regular basis.

The *PDIAtoolkit* draws from two key resources. The first is the *Building State Capability: Evidence, Analysis, Action* book which is available as a free download at <https://bsc.cid.harvard.edu> and the second is a set of short videos explaining the key concepts of PDIA available here: <https://vimeo.com/album/5477026>

These resources will appear in each section and we encourage you to consult them as you try PDIA. We hope that you find this toolkit useful and wish you the best on your PDIA Journey.

— *The Building State Capability team*
www.bsc.cid.harvard.edu

THE PDIA PROCESS



SECTION 1

Constructing your problem



Problems are key to driving change. We find that many development practitioners claim to be problem-driven but are in fact solution-driven. They define their problem as the lack of a preferred solution which often leads to standardized interventions that never address the root causes of the problem.

PDIA is about building capability to solve problems through the process of solving good problems. A good problem is one that:

- matters to key change agents and therefore cannot be ignored
- motivates and drives change
- can be broken down into smaller causal elements
- allows real, sequenced, strategic responses
- is locally driven, where local actors define, debate and refine the problem statement through shared consensus

We believe that constructing local problems is the entry point to beginning the search for solutions that ultimately drive change. It is the first step in doing PDIA.

In this section you will learn how to construct or frame your problem and draw attention to the need for change in the social, political, and administrative agenda. You will need to gather key change agents, both decision-makers as well as potential agitators, to answer the questions in worksheet 1. This step has to be done by agents internal to the context and not by outsiders. The answers to the questions should be informed by data/evidence to convince others of their validity, and to empower the group to have a compelling problem statement. We will cover the topic of building and maintaining your authorizing environment in Section 5.

RESOURCES



VIDEOS

Find videos at vimeo.com/album/5477026.

[Selling solutions vs. solving problems](#)

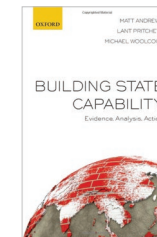
[Real problem driven reform](#)

[Constructing problems to drive change](#)

[Constructing problems that matter](#)



READING



Chapter 7:
Doing problem-driven work
(pages 139–150)

Example: Constructing your problem

We will use the following example throughout the entire *PDIAtoolkit* to demonstrate how to use the worksheets.

A would-be reformer in Malawi might be concerned about the failure of Malawi's Anti-Corruption Bureau (ACB). She could try to convince others that serious reform is needed, focusing on improving the "preferred solution" and creating a better ACB. Some might argue that the ACB is emerging, however, and will work one day. Others might note that corruption has always been there and is too politically

difficult to address. Noting this, our reformer would recognize the need to turn a condition into a problem, through problem construction. She would need to gather a small (to start) group of agitators and decision-makers and ask the questions listed below. Imagine the kind of conversation that would ensue, and how it would focus the reform agenda.

1 What is the problem?

The problem is that the ACB does not effectively address corruption.

2 Why does it matter?

Because we still have a lot of corruption in government, which we can show in various indicators.

Why does it matter?

Because we lose money from the corruption, which we can estimate using basic financial reporting data.

Why does it matter?

Because the lost money leads to reduced services, which we can show in various sectors—including education, healthcare, and water.

3 To whom does it matter?

All those receiving the services, including citizens and the politicians who are meant to represent them. These are key change agents, especially at the local level.

4 Who needs to care more?

Key government decision-makers like the minister of finance and local budget and policy officials.

5 How do we get them to give it more attention? (How do we measure it or tell stories about it)

By providing data showing the loss in money from corruption, and how this translates into service delivery weaknesses. These data could include stock-out statistics in clinics, or textbook access in schools, and could be provided for different constituencies to convince individual politicians that they should care.

6 What will the problem look like when it is solved?

School and health sector services would be stronger, and money would be flowing to schools and clinics more effectively.

They could focus on specific targets for improved stock access in clinics and textbook provision in schools, once again reflecting on these targets for individual constituencies to ensure the support of individual political representatives.

Worksheet 1: Constructing your problem

1 What is the problem?

2 Why does it matter?

Why does it matter?

Why does it matter?



3 To whom does it matter?

4 Who needs to care more?

5 How do we get them to give it more attention? (How do we measure it or tell stories about it)

6 What will the problem look like when it is solved?

SECTION 2

Deconstructing your problem



Complex problems are intractable and the “right” solutions are hard to identify. This often leads reformers to push for preferred best practice solutions that they know will not build real capability but will at least offer something to do.

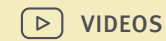
To mitigate this risk, the problem needs to be broken down into smaller, more manageable sets of focal points for engagement, that are open to localized solution building. This can lead to a different — and more accurate — understanding of the problem. We refer to this process as deconstructing the problem and this is the second step in doing PDIA.

In this section you will learn how to deconstruct your problem using the “5-why technique” which allows you to identify multiple root causes and to further break down each cause into its sub-causes. You will then use a fishbone or Ishikawa diagram to visually represent your deconstructed problem.

It is important to involve different agents in this process as they will bring different perspectives thus allowing for a more robust deconstruction of the problem. This step has to be done by agents internal to the context and not by outsiders. At this stage we caution against prematurely excluding any causal issues. The answers to the questions should be informed by data/evidence to convince others of their validity.

Please note: These tools are dynamic and need to be updated often over time.

RESOURCES

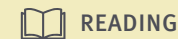


Find videos at vimeo.com/album/5477026.

[Deconstructing sticky problems](#)

[You cannot juggle without the struggle](#)

[PDIA is a way to structure your struggle](#)



Chapter 7:
Doing problem-driven work
(pages 150–157)

Table 1: An example of “5 why” conversations in action

YOUR PROBLEM AS A QUESTION: *Why is money being lost in service delivery?*

CAUSE 1	CAUSE 2	CAUSE 3
<p>C1: <i>Funds budgeted for services are disbursed for other purposes.</i></p>	<p>C2: <i>Procurement costs are inflated, leading to fund leakages.</i></p>	<p>C3: <i>Local officials divert resources to personal purposes.</i></p>
<p>Why does this happen?</p> <p>SC 1.1: <i>Loopholes in disbursement systems allow reallocation.</i></p>	<p>Why does this happen?</p> <p>SC 2.1: <i>Procurement processes are often half implemented.</i></p>	<p>Why does this happen?</p> <p>SC 3.1: <i>Officials feel obliged to redistribute money.</i></p>
<p>Why does this happen?</p> <p><i>Disbursement systems are missing key controls.</i></p>	<p>Why does this happen?</p> <p><i>Procurement processes are often rushed.</i></p>	<p>Why does this happen?</p> <p><i>Constituents expect officials to redistribute money.</i></p>
<p>Why does this happen?</p> <p><i>Disbursement system designs were insufficient and have never been improved.</i></p>	<p>Why does this happen?</p> <p><i>Decisions to procure goods are delayed and delayed again, every year.</i></p>	<p>Why does this happen?</p> <p><i>Local norms make it appropriate to ‘share’ in this way.</i></p>
<p>Why does this happen?</p> <p><i>We lack resources and skills to improve system designs.</i></p>	<p>Why does this happen?</p> <p><i>Budget decisions initiating purchase decisions are delayed.</i></p>	<p>Why does this happen?</p> <p><i>Local communities are poor and depend on this sharing.</i></p>

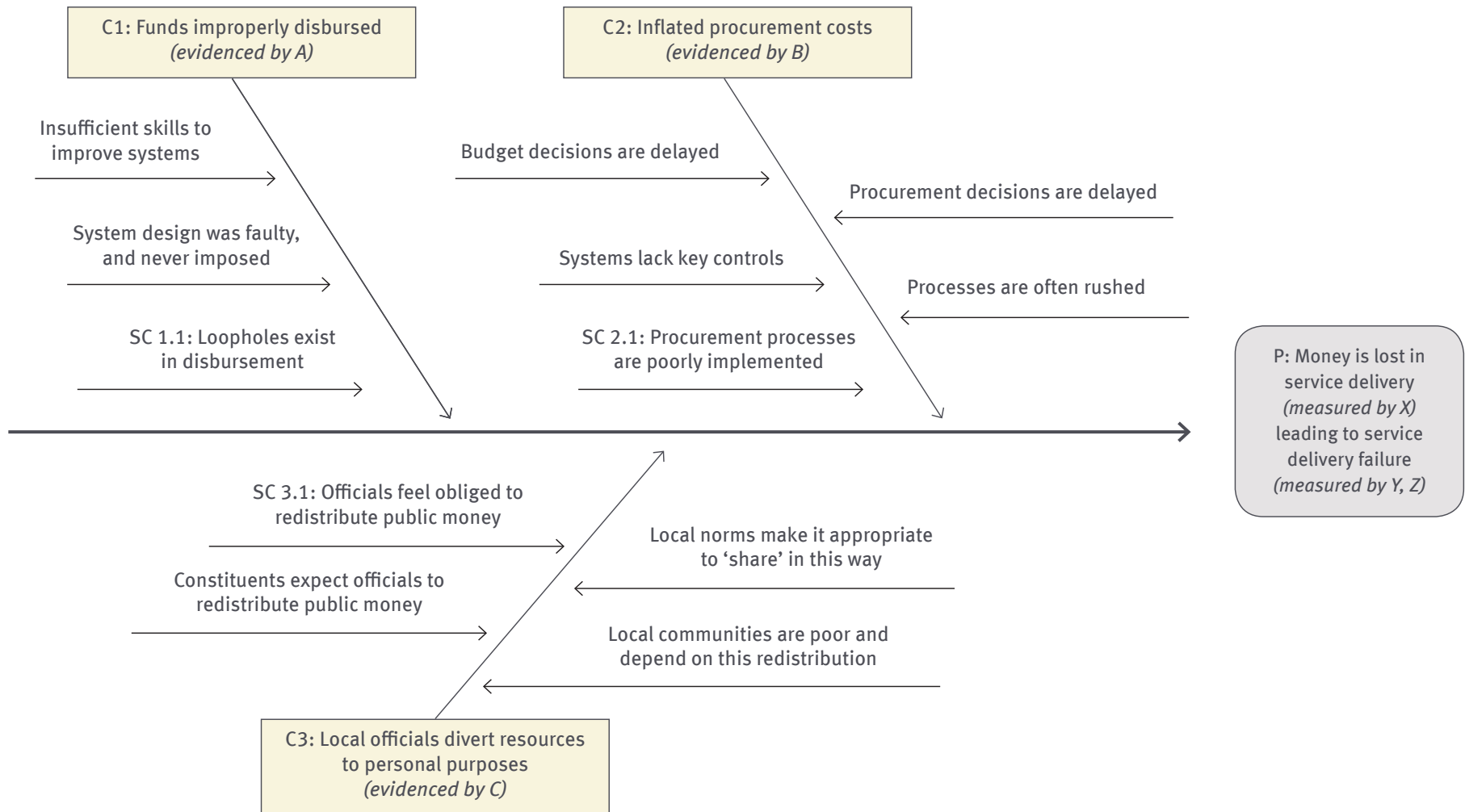
Worksheet 2: My “5 why” thought sheet

YOUR PROBLEM AS A QUESTION:

CAUSE 1	CAUSE 2	CAUSE 3
<p>Why does this happen?</p>	<p>Why does this happen?</p>	<p>Why does this happen?</p>
<p>Why does this happen?</p>	<p>Why does this happen?</p>	<p>Why does this happen?</p>
<p>Why does this happen?</p>	<p>Why does this happen?</p>	<p>Why does this happen?</p>
<p>Why does this happen?</p>	<p>Why does this happen?</p>	<p>Why does this happen?</p>
<p>Why does this happen?</p>	<p>Why does this happen?</p>	<p>Why does this happen?</p>

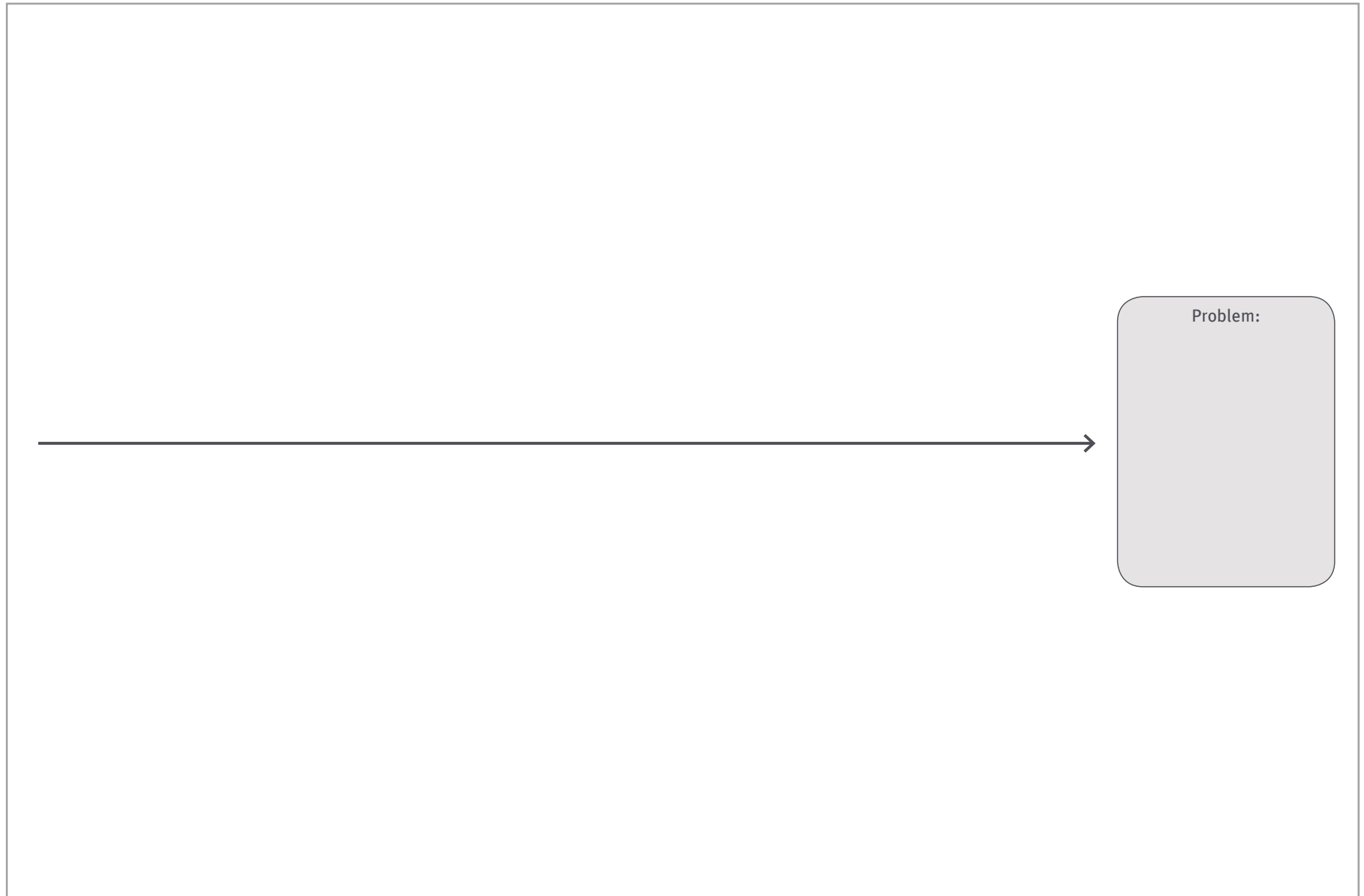
Figure 1: Deconstructing complex problems in Ishikawa diagrams

We use the causes and sub causes from the 5 why sheet in Table 1 to draw an Ishikawa or fishbone diagram.



Worksheet 3: My Ishikawa diagram, deconstructing the problem I am facing

Use the causes and sub causes from your 5 why thought sheet in worksheet 2 to draw your Ishikawa or fishbone diagram.



SECTION 3

Sequencing:

Using the triple-A change space analysis to find entry points



Most deconstructed problems take the form of meta-problems and raise questions like: Where do I begin to solve the problem? What do I do? How do I ensure that all causal strands are addressed?

Solving these problems require multiple interventions which allow for multiple entry points for change. Each cause and sub-cause of the fishbone diagram is essentially a separate — albeit connected — point of engagement, and offers different opportunities for change. We refer to this opportunity as the “space for change.” This change space is contingent on contextual factors commonly found to influence policy and reform success, shaping what and how much one can do in any policy or reform initiative at any time.

Effective sequencing, the third step in doing PDIA, is crucial in helping you with this process. Problem driven sequencing refers to the timing and staging of your engagement given your contextual opportunities and constraints. A failure to sequence effectively could lead, in principle and practice, to premature load bearing (where change demands are introduced before they can be managed by your country or organization).

In this section you will learn how to use the triple-A change space analysis to identify how much change space you have in each of your causal strands of your fishbone diagram. This will help you determine whether you should try aggressive new policy or reform initiatives or start with something smaller and grow your change space first.

RESOURCES



VIDEOS

Find videos at vimeo.com/album/5477026.

[Problem driven sequencing](#)

[Finding potential entry points](#)

[Understanding your eco-system](#)

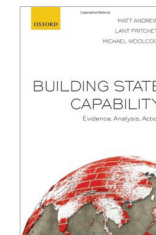
[Iceberg metaphor](#)

[PDIA is about matching your capability with your challenge](#)

[PDIA: Getting from the capability you have to the capability you need](#)



READING



Chapter 7:
Doing problem-driven work
(pages 158–166)

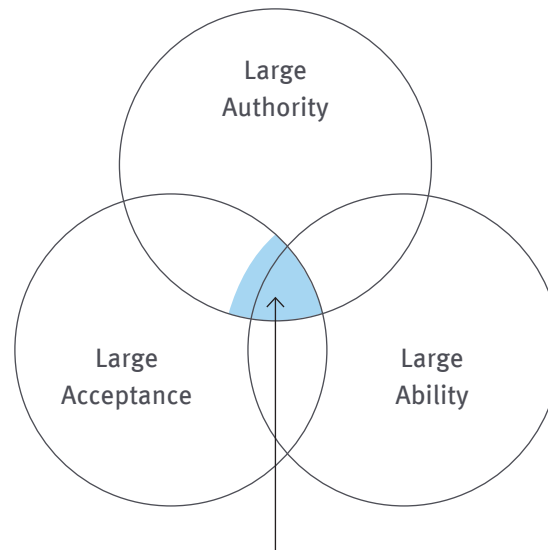
Figure 2: Showing the change space graphically

Our heuristic used to assess the “space for change” in any causal dimension area includes the three key factors:

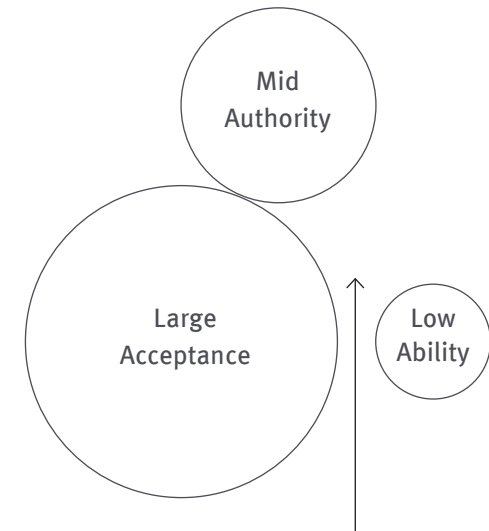
Authority: refers to the support needed for reform or policy change or to build state capability. It could be political, legal, organizational, or personal. Some change needs more authority than other change, and it is always important to assess the extent of authority one already has — and the authority gaps that need to be closed. It may be useful to read more about the authorizing environment in Section 5.

Acceptance: relates to the extent to which those who will be affected by reform or policy change accept the need for change and the implications of change. Different types of change require different levels of acceptance (from narrow or broad groups and at different depths) and the key is to recognize what acceptance exists and what gaps need to be closed to foster change.

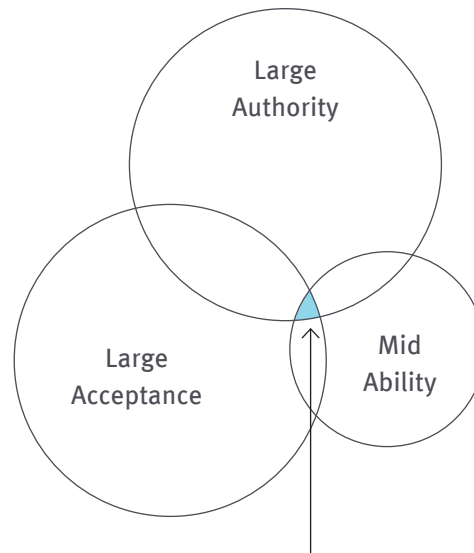
Ability: focuses on the practical side of reform or policy change, and the need for time, money, skills and the like to even start any kind of intervention. It is important to ask what abilities exist and what gaps need to be closed.



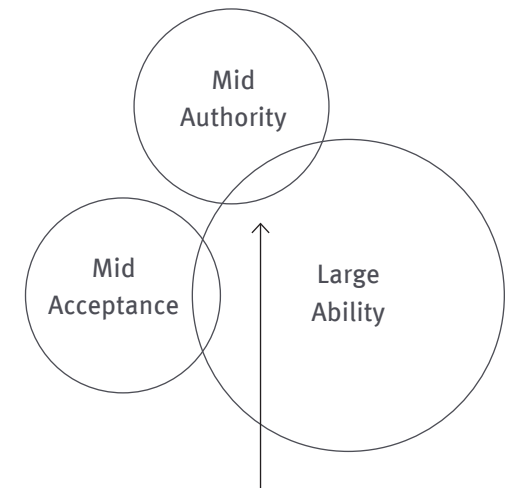
Large Change Space



No Change Space



Small Change Space



No Change Space

Worksheet 4: A basic triple-A change space analysis

The goal is to make as good an estimate as possible, in transparent a fashion as possible, so that we allow ourselves to progressively learn more about the context and turn uncertainty into clearer knowledge. Begin by stating the problem you are working on (from your fishbone diagram in Worksheet 3). Transfer each of the sub-causes from your fishbone diagram. Then, use these questions to help you reflect on the contextual change space for your AAA estimation for each sub-cause:

Authority to engage:

- Who has the authority to engage: Legal? Procedural? Informal?
- Which of the authorizer(s) might support engagement now?
- Which of them would probably not support engagement now?

Acceptance:

- Which agents (person/organization) have an interest in this work?
- For each agent, on a scale of 1-10, think about how much they are likely to support engagement?
- On a scale of 1-10, think about how much influence each agent has over potential engagement?
- What proportion of ‘strong acceptance’ agents do you have (with above 5 on both estimates)?
- What proportion of ‘low acceptance’ agents do you have (with below 5 on both estimates)?

Ability:

- What is your personnel ability?
 - Who are the key (smallest group of) agents you need to ‘work’ on any opening engagement?
 - How much time would you need from these agents?
- What is your resource ability?
 - How much money would you need to engage?
 - What other resources do you need to engage?

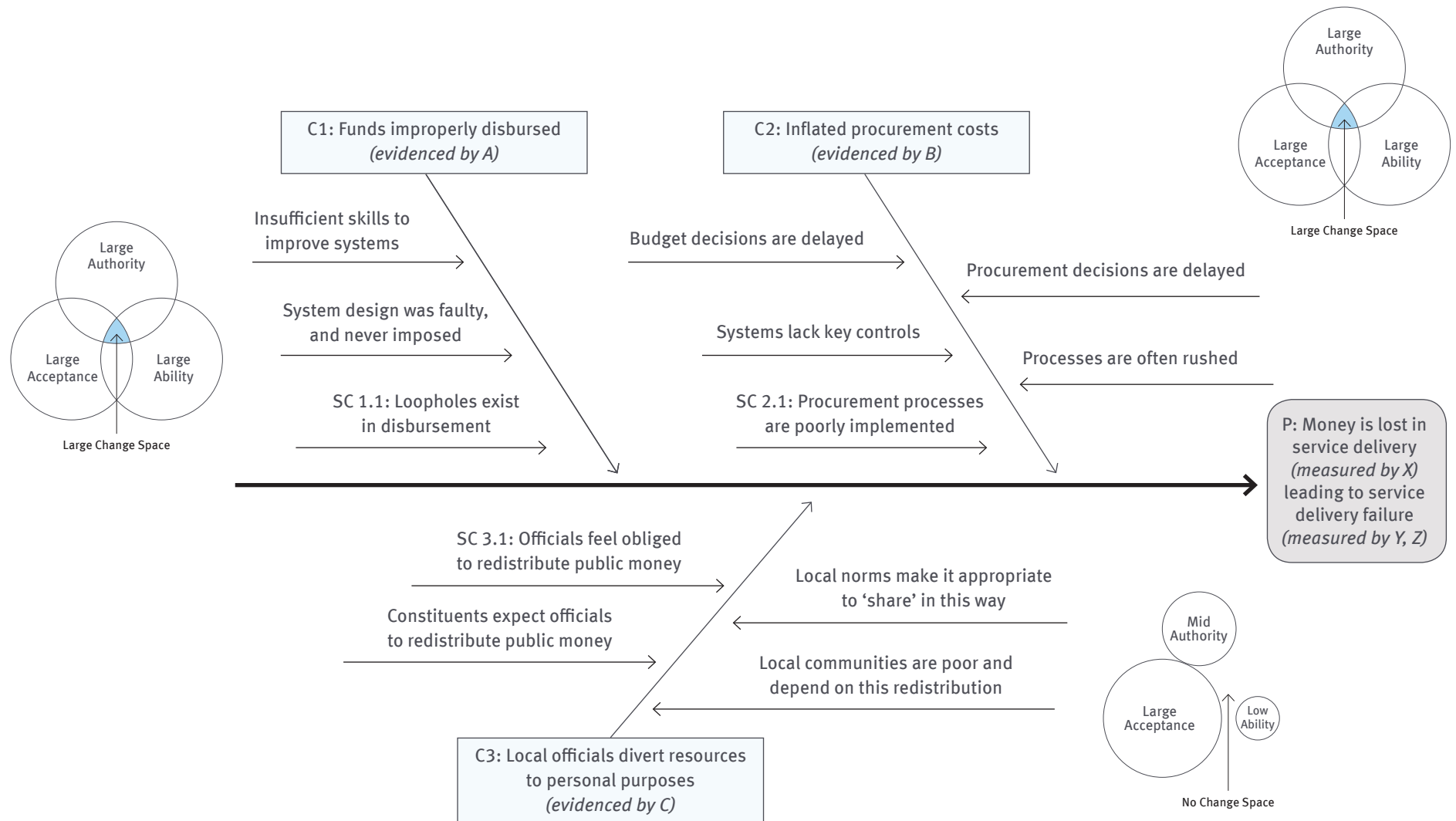
QUESTIONS FOR REFLECTION	AAA ESTIMATION (LOW, MID, LARGE)	ASSUMPTIONS
Cause 1:		
Overall, how much Authority do you think you have to engage?		
Overall, how much Acceptance do you think you have to engage?		
Overall, how much Ability do you think you have to engage?		
What is the change space for cause 1? (large change space, some change space or no change space) – AAA Venn diagram		

Worksheet 4: A basic triple-A change space analysis *continued*

QUESTIONS FOR REFLECTION	AAA ESTIMATION (LOW, MID, LARGE)	ASSUMPTIONS
Cause 2:		
Overall, how much Authority do you think you have to engage?		
Overall, how much Acceptance do you think you have to engage?		
Overall, how much Ability do you think you have to engage?		
What is the change space for cause 2? (large change space, some change space or no change space) – AAA Venn diagram		
Cause 3:		
Overall, how much Authority do you think you have to engage?		
Overall, how much Acceptance do you think you have to engage?		
Overall, how much Ability do you think you have to engage?		
What is the change space for cause 3? (large change space, some change space or no change space) – AAA Venn diagram		

QUESTIONS FOR REFLECTION	AAA ESTIMATION (LOW, MID, LARGE)	ASSUMPTIONS
Cause 4:		
Overall, how much Authority do you think you have to engage?		
Overall, how much Acceptance do you think you have to engage?		
Overall, how much Ability do you think you have to engage?		
What is the change space for cause 4? (large change space, some change space or no change space) – AAA Venn diagram		
Cause 5:		
Overall, how much Authority do you think you have to engage?		
Overall, how much Acceptance do you think you have to engage?		
Overall, how much Ability do you think you have to engage?		
What is the change space for cause 5? (large change space, some change space or no change space) – AAA Venn diagram		

Figure 3: Examining change space in different causal/sub-causal strands of a problem



Worksheet 5: Change space in our group Ishikawa diagram

Re-draw your Ishikawa diagram from worksheet 3 and add your change space analysis from worksheet 4.



Worksheet 6: Building your Authority, Acceptance and Ability

Using your change space analysis from Worksheet 5, please indicate your strategy to build/expand your Authority, Acceptance or Ability, for each of the sub-causes in your fishbone diagram from Worksheet 3.

CAUSE/SUB-CAUSE	CHANGE SPACE <i>(large, some space or no space)</i>	STRATEGY <i>What will you do (e.g. I will expand my change space by building authority) and why?</i>



CAUSE/SUB-CAUSE	CHANGE SPACE <i>(large, some space or no space)</i>	STRATEGY <i>What will you do (e.g. I will expand my change space by building authority) and why?</i>

SECTION 4

Crawling the design space for possible solutions



The deconstruction and sequencing processes helps you to think about where you should act (where do we have large change space, and where is it limited?). However, the challenge that still remains is to determine “what” to do. This is a serious challenge when dealing with complex problems, given that the answers are usually unclear — if we are honest, we have to admit that we often do not know what to do and externally identified best practice solutions that are offered, seem promising but are likely to lead to capability traps. So how do you manage the lure of best practices (or isomorphic pressure to adopt such)?

We believe that the “what” answers to complex problems do exist and can be found, but must emerge through active iteration, experimentation, and learning. This means that answers cannot be pre-planned or developed in a passive or academic fashion by specialists applying knowledge from other contexts. Answers must be found within the change context through active engagement and learning. Furthermore, a real solution to complex problems comes in the form of many small solutions to the many causal dimensions of the problem.

Crawling the design space, the fourth step in doing PDIA, helps you look for and experiment with multiple alternative solutions. This is not to say that ideas from the outside (and so-called “best practices”) should not be considered as potential answers or pathways to building state capability, but rather that even the most effective best practices are unlikely to address all of the specific problem dimensions needing attention.

In this section you will learn to identify multiple solutions that will inform your strategy of finding and fitting the “what” in your context. This process yields positive and negative lessons from each idea — with no individual idea proving to be “the solution.” We find that the lessons lead to the emergence of new hybrids, or locally constructed solutions that blend elements from all of the ideas.

RESOURCES



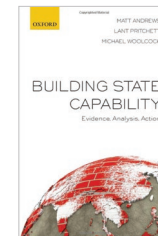
VIDEO

Find videos at vimeo.com/album/5477026.

[Learning by crawling](#)



READING



Chapter 8:
The Searchframe
(pages 167–177)

Figure 4: The design space: where do we get ideas from?

There are two dimensions to the design space, reflected in the axes of the figure at right: horizontally, we reflect on whether an idea is administratively and politically possible in the targeted context (have the solutions proved to work in this context, such that the people in the context know how to implement them?); vertically, we consider whether the ideas have proved technically correct (such that they have been seen to solve the problem being considered).

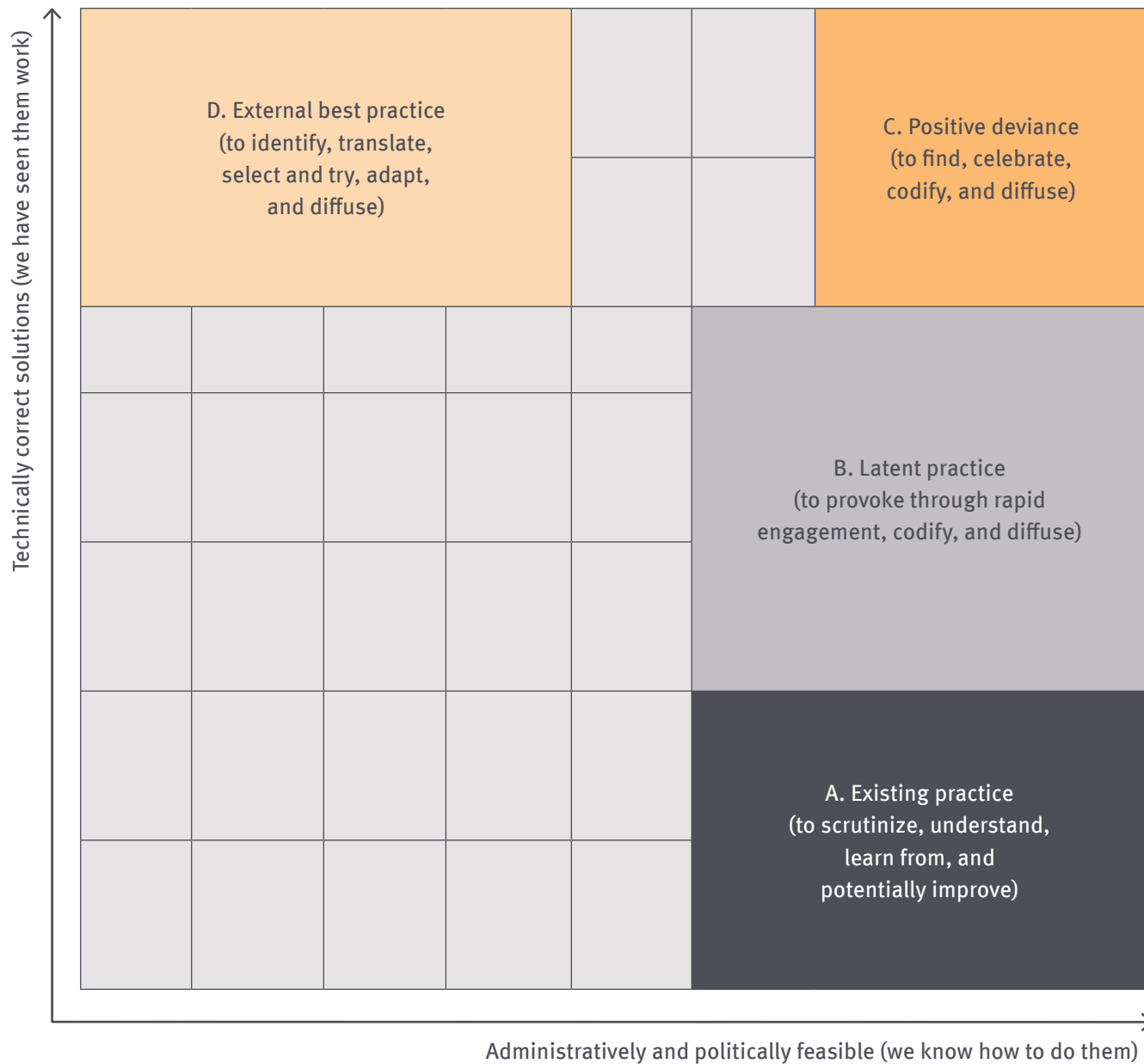
A. Existing practice is the first area of opportunity in the design space (“A” in the bottom right corner of the figure). We believe there is always some existing practice or capability which provides an opportunity, to learn about what works in your context, what does not work, and why. Common tools to help in this process include gap analysis, program evaluation, site visits, immersions and inspections etc. It is the practice that agents in your context know best and starting from where they are is a potentially empowering way of ensuring that these agents develop a clear view of the problem and provides local ownership of the find and fit process

B. Latent Practice is a second area of opportunity in the design space (“B” in the figure). This is the set of potential ideas and government capabilities that are possible in the context — given administrative and political realities — but require some focused attention to emerge. Rapid results type interventions where groups of people are given a challenge to solve a focal problem in a defined period with no new resources is an example. These can be incredibly motivating and empowering for local agents who get to see their own achievements in short periods. Ideas that emerge from these rapid initiatives can also become the basis of permanent solutions to existing problems.

C. Positive deviance is a third area of opportunity in the design space (“C” at the top-right corner of the figure). Positive deviance relates to ideas that are already being acted upon in the change context (they are thus possible), and that yield positive results (solving the problem, and thus being technically correct), but are not the norm (hence the idea of deviance). Finding these positive deviants, celebrating them, codifying them and broadly diffusing the core principles of their success is crucial.

D. External best practice is the final area of opportunity in the design space (“D” at the top-left corner of the figure). These are often the first set of ideas reformers and policymakers look at and suggest. There are often multiple external good/best practice ideas to learn from and the find and fit process should start by identifying a few of these — rather than settling for one prematurely. Then, these ideas need to be translated to your own context.

We advocate trying more than one new idea at a time in any change context.



Worksheet 7: Crawling the design space

What substance do we need from any new idea?

- a. New policy or practice to fit into existing change space
- b. A way to expand authority
- c. A way to expand acceptance
- d. A way to expand ability

How can we work to find ideas in at least two of the following idea domains?

- a. Existing practice (to scrutinize, understand, learn from, and potentially improve)
- b. Latent practice (to provoke through rapid engagement, codify, and diffuse)
- c. Positive deviance (to find, celebrate, codify, and diffuse)
- d. External best practice (to identify, translate, select and try, adapt, and diffuse)

Sub-cause 1:

Sub-cause 2:



Sub-cause 3:

Sub-cause 4:

SECTION 5

Building and maintaining authorization



One needs authority to undertake any initiative aimed at building state capability. However, it is not easy to build authorization to act. Authorizing environments are commonly fragmented, and difficult to navigate. Programs and policies typically cross over multiple authority domains in which many different agents and processes act to constrain or support behavior. Authorizing structures often vary vertically as well, with agents at different levels of an organization or intergovernmental structure enjoying control over different dimensions of the same process.

Informality often reigns in these challenges as well, manifest in personality and relationship-driven authority structures. These structures are seldom well known, especially to outsiders, which makes it extremely difficult to know who really authorizes what in any context. Whether formal or informal, authority structures are often fickle and inconsistent. Authorizers will sanction new activities for many reasons, and may lose interest or energy or patience for many reasons as well. This means that one is never guaranteed continued support from any authorizer for any period of time, no matter what promises are made. Therefore, authority needs to be treated as a variable and not as something fixed. It is dynamic and with well-structured strategies, it can be influential in expanding your change space (see Section 3).

In this section you will learn how to identify your various authorization needs, where you can find them given how authority is structured in your context, and how to grow your authorization over time.

RESOURCES

VIDEOS

Find videos at vimeo.com/album/5477026.

[Understanding your authorizing environment](#)

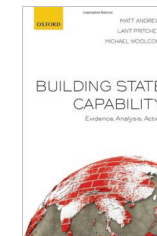
[Maintaining your authorizing environment](#)

[Ideal vs. real bureaucracy](#)

[Fragmented and dysfunctional authority](#)

[Competition for authorization](#)

READING



Chapter 9:
**Managing your
authorizing environment**
(pages 193–214).

Worksheet 8: What authority do you need and where will you look to find it?

Your problem statement:	Your primary authorizer:
	Why do you assume his/her support?

We do not expect you to identify an exhaustive list of needs here, given that there will be emergent needs as you progress through your iterations. We propose that this list be part of the iterative check in every iteration cycle, where you can update your understanding of authorization needs (and assumptions) at regular intervals and engage authorizers about this.

MAKE A LIST OF YOUR NEEDS FOR EACH OF THE FOLLOWING CATEGORIES	DO YOU THINK YOUR PRIMARY AUTHORIZER WILL SUPPORT THIS NEED?	WHO ELSE NEEDS TO PROVIDE AUTHORIZATION TO SATISFY THIS NEED?
Your own time and effort		
Other people's time and effort		



MAKE A LIST OF YOUR NEEDS FOR EACH OF THE FOLLOWING CATEGORIES	DO YOU THINK YOUR PRIMARY AUTHORIZER WILL SUPPORT THIS NEED?	WHO ELSE NEEDS TO PROVIDE AUTHORIZATION TO SATISFY THIS NEED?
Resources		
Decision-making rights		
Other		

Worksheet 8: What authority do you need and where will you look to find it?

continued

MAKE A LIST OF YOUR NEEDS FOR EACH OF THE FOLLOWING CATEGORIES	DO YOU THINK YOUR PRIMARY AUTHORIZER WILL SUPPORT THIS NEED?	WHO ELSE NEEDS TO PROVIDE AUTHORIZATION TO SATISFY THIS NEED?
Flexible authorization (<i>willing to entertain emergent authorization requests</i>)		
Shareable authorization (<i>allowing the engagement of other authorizers, giving up some of own control and ownership</i>)		
Grit authorization (<i>steadfast and patient, and ready to explain short term failures to naysayers</i>)		



Worksheet 9: Your communication and persuasion strategy to convince your authorizers

	AUTHORIZER 1	AUTHORIZER 2	AUTHORIZER 3	AUTHORIZER 4
	<i>Name:</i>	<i>Name:</i>	<i>Name:</i>	<i>Name:</i>
Does the authorizer agree that you have a problem?				
What would make the authorizer care more about the problem?				
Does the authorizer support the experimental iteration you propose?				
What could convince the authorizer that you need an experimental iterative approach?				

SECTION 6

Designing your first iteration



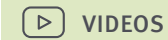
Trying a number of small interventions in short rapid cycles helps to assuage common risks in reform and policy processes, of either appearing too slow in responding to a problem or of leading a large and expensive capacity building failure. This is because each step offers quick action that is relatively cheap and open to adjustment; and with multiple actions at any one time there is an enhanced prospect of early successes (commonly called “quick wins”).

The small steps also help to flush out (or clarify) contextual challenges, including those that emerge in response to the interventions themselves. Facilitating such positive deviations and contextual lessons is especially important in uncertain and complex contexts where reformers are unsure of what the problems and solutions actually are and often lack confidence in their abilities to make things better.

Designing your first iteration is a key step in doing PDIA where multiple solution ideas are identified and put into action, iterative steps progressively allow locally legitimate solutions to emerge, and fosters adaptation to the idiosyncrasies of the local context.

In this section you will learn how to design your first iteration. This is your opportunity to finally take some action toward solving your complex problem. The process should be seen as experimental, and probably involve acting on multiple potential solution ideas at a time (instead of just one). It can also be accelerated to ensure the change process gains and keeps momentum (to more or less degree, depending on where one is in the change process and what problems, causes or sub-causes are being addressed).

RESOURCES



VIDEOS

Find videos at vimeo.com/album/5477026.

[Learn iterate adapt](#)

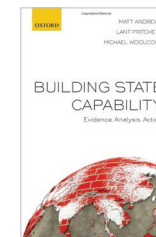
[Designing your first iteration](#)

[Iteration is research in action](#)

[Give the work back](#)



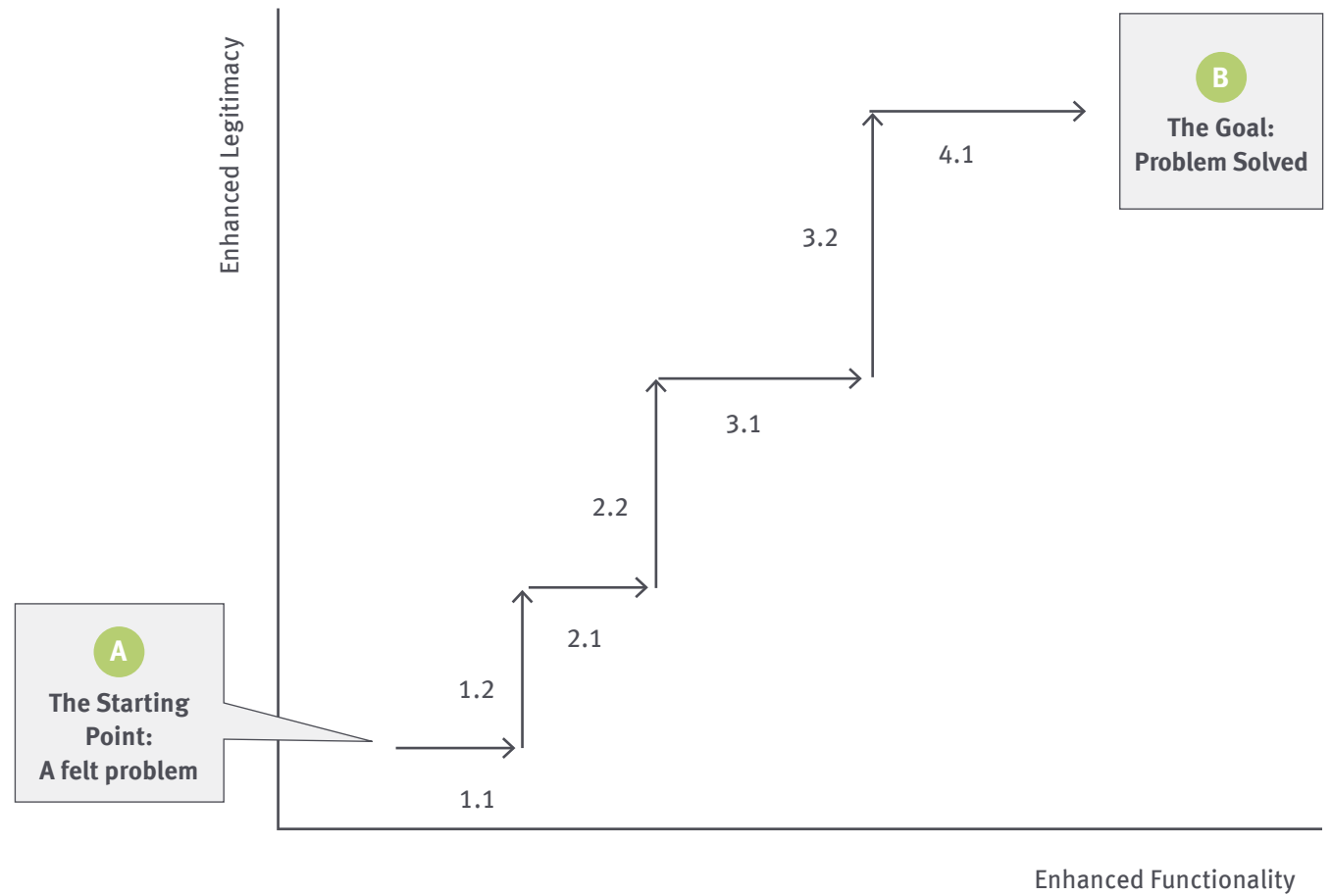
READING



Chapter 8:
The Searchframe
(pages 178–191).

Figure 5: Iterating to progressively improve functionality and legitimacy

Begin by trying something in your context to become a little bit more functional. And then learning from that experience, getting some legitimacy from the quick wins, iterating again with maybe a bigger step the next time around, learning again and getting legitimacy again, and working your way up, step by step until you get to the top.



Worksheet 10: Structuring your first iteration

Using all of the analysis you have done in previous sections, identify a few ideas that you will act upon in your first iteration (a one-week period). The initial steps should be highly specified, with precise determination of what will be done by whom in relation to all chosen ideas, and predetermined

start and end points that create time boundaries for the first step. We propose working with tight time boundaries at the start of this kind of work, so as to establish the foundation of an action-oriented work culture, and to build momentum.

Cause 1:		
Idea		
Action steps (what you will do in the next 5–7 days)		
<i>Who will be responsible?</i>	<i>What will be done?</i>	<i>Assumptions</i>
How will we know if aim is reached?		Date of iteration check (and who will be involved)

Worksheet 10: Structuring your first iteration *continued*

Cause 2:		
Idea		
Action steps (what you will do in the next 5–7 days)		
<i>Who will be responsible?</i>	<i>What will be done?</i>	<i>Assumptions</i>
How will we know if aim is reached?		Date of iteration check (and who will be involved)

Cause 3:

Idea

Action steps (what you will do in the next 5–7 days)

Who will be responsible?

What will be done?

Assumptions

How will we know if aim is reached?

Date of iteration check (and who will be involved)

SECTION 7

Learning from your iterations



In PDIA, there is no separation between the design and the implementation phase of solving complex problems. This is a simultaneous process that occurs via embedding experiential learning (or “action learning”) into the iteration process — a key feature of doing PDIA in practice. The idea of iterating around specific steps instead of taking big jumps is so we can stop and learn from our experiences. Check-in points offer opportunities to ask what was learned as we tried to address the challenge, and especially to learn new knowledge — that is not codified or written down but is based on what we did in taking our steps. This is called **tacit knowledge**, which is the key knowledge we need to capture and build on when working on complex problems or challenges.

The hallmark of this process is simple: targeted actions are rapidly tried, lessons are quickly gathered to inform what happened and why, and a next action step is designed and undertaken based on what was learned in prior steps. Each iteration has five dimensions: (i) it is time-bound (with short periods at first), in which (ii) you and your team identifies multiple ideas, (iii) act upon the ideas, (iv) stop to take stock of your experience and test the validity of your assumptions in specific contexts, and (v) revise your ideas to try again. In this process, you are both the source and user of emergent knowledge; as compared to many other approaches where the learner is a passive recipient of knowledge. We believe that active discourse and engagement are vital in complex change processes, and must therefore be facilitated through the iterations.

In this section you will learn how to use the iteration check-in tool as well as the searchframe. The iteration check-ins or “action push periods” are the most important part of PDIA. It is where solutions as well as capabilities emerge. We believe this kind of iterative process is well suited to addressing complex problems and meeting the structural needs of formal project processes.

RESOURCES

VIDEOS

Find videos at vimeo.com/album/5477026.

[Searchframe: Let's be logical and not just a framework](#)

[Is it logical to give up your logframe?](#)

[Searching is learning](#)

[Team check-in tool](#)

[Give the work back](#)

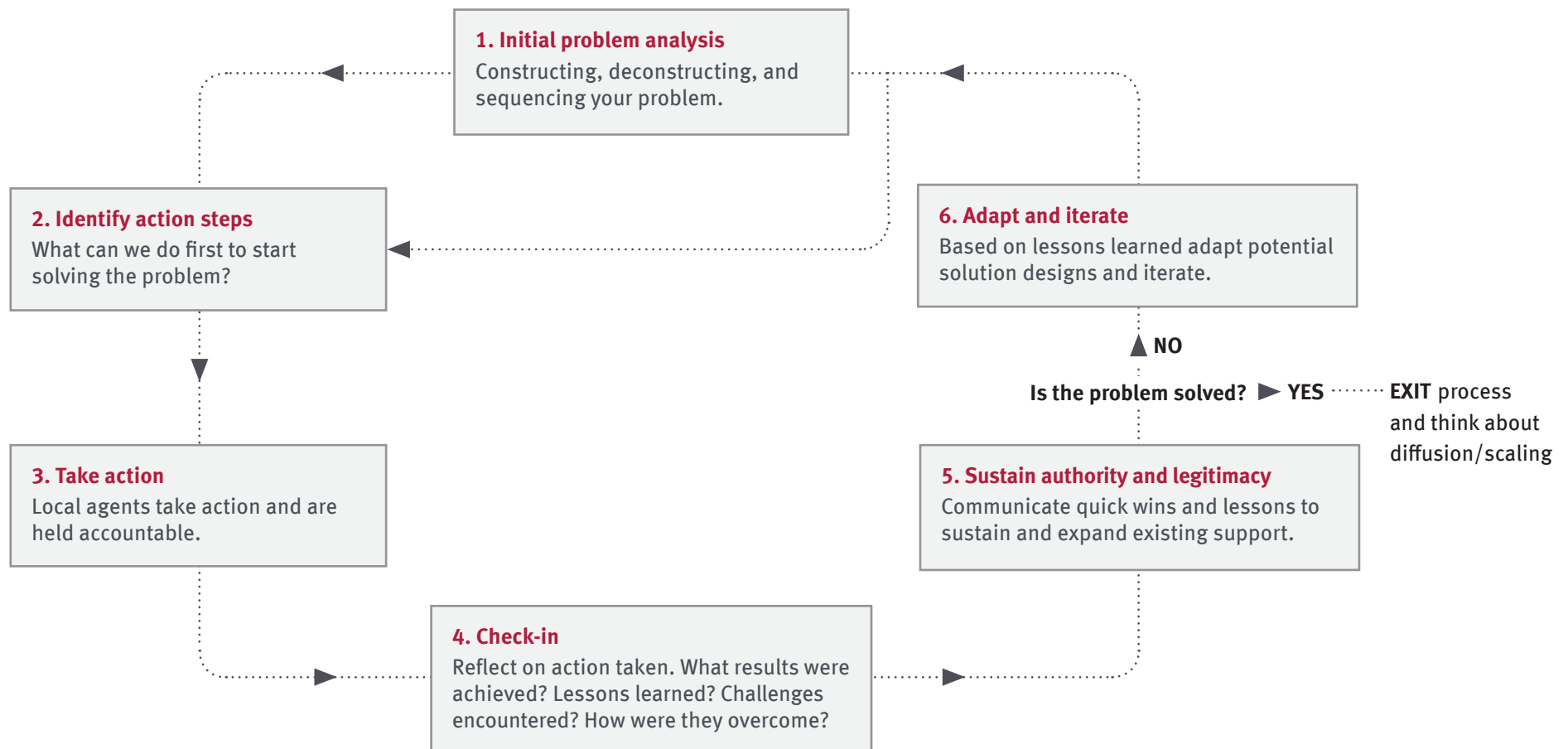
[Emergence: Where practice meets opportunity](#)

READING

Andrews, Matt. 2016. BSC Blog. [Searchframes and adaptive work more logical than log frames](#)

Andrews, et al. 2017. [Learning to Target for Economic Diversification](#). CID Working Paper, Harvard Kennedy School.

Figure 6: The iterative process



Worksheet 11: Fostering experiential learning in your find-and-fit process

1 What are the questions you think are most appropriate to ask?

2 Who would need to be engaged?

3 How regularly would you engage these agents?

4 How would you use the lessons learned?



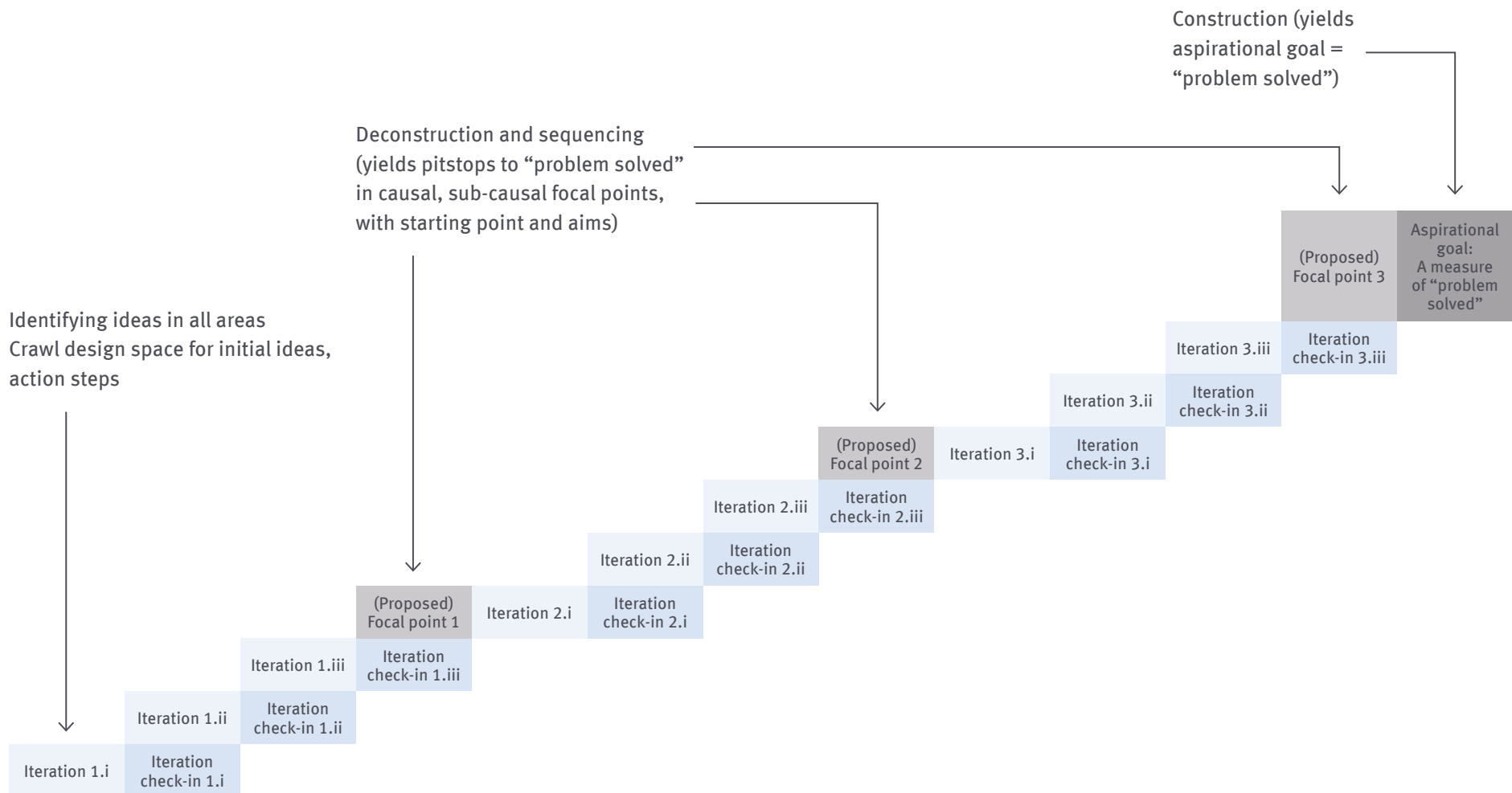
Worksheet 12: Iteration check-in tool

	WEEK 1	WEEK 2
1 What did we do?		
2 What did we learn? <ul style="list-style-type: none">• about the problem we are addressing• about the ideas we are trying out• about our authorizing environment• about working as a team• any other lessons		
3 What are we struggling with? <ul style="list-style-type: none">• What are our biggest questions and concerns moving ahead?		
4 What's next? <ul style="list-style-type: none">• Activities we will focus on• Goals and deadlines for each activity• People responsible for each step		



WEEK 3	WEEK 4

Figure 7: The searchframe as a logframe alternative for complex challenges



Worksheet 13: The searchframe for my find and fit process



SECTION 8

Onward



Doing PDIA is hard. We're sure you already know that by now, but we should be under no illusions that the problems we confront, the forces arrayed against real reform, the incumbent systems in which they are embedded, and the seemingly modest starting points from which PDIA begins, can all combine to make the challenge before us seem daunting and overwhelming — and on a bad day, perhaps impossible.

Students of the history of social movements know that many things we now take for granted in 'developed' countries — clean air, human equality, women's suffrage, safe working conditions, public sanitation — all began as novel (but seemingly radical) ideas that, over time, coalesced into reform agendas with the capability to overcome indifference and powerful opposition; eventually, with dogged persistence, they became routinized as normal (an everyday experience) and normative (what everyone presumed should be an everyday experience). Achieving these goals sometimes took centuries (ending slavery) and in other cases it remains imperfectly realized still today (gender equality). Sometimes decades can pass with seemingly nothing to show for all the time, effort and resources expended. Nelson Mandela spent 27 years in jail as part of his contribution to the campaign to end apartheid in South Africa; we wonder what his "key performance indicators" looked like at the end of year 25...

One day, perhaps, something like PDIA will be the normal and normative way of engaging with complex development challenges, but only a committed global social movement of citizens and development professionals will bring it about. For now, we have to start where we are, expect lots of setbacks, summon collective grit, and embark with others on what Albert Hirschman so aptly called "a long voyage of discovery."

We hope that you find this toolkit useful and wish you the best on your PDIA Journey.

RESOURCES



VIDEOS

Find videos at vimeo.com/album/5477026.

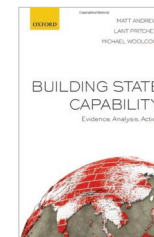
[Scaling through the diffusion of practice](#)

[The myth of scale and sustainability](#)

[PDIA: Hard but worthwhile](#)



READING



Chapter 10:
**Building state capability
at scale through groups**
(pages 215–231).

