CHAPTER 5

Developing an Evidence-Based Mindset: Fostering a Culture of Evidence-Based Policymaking through Research, Training, and Policy Engagements

Achieving the 2030 Agenda for Sustainable Development in the context of the COVID-19 pandemic and beyond requires governments to identify, implement, and scale the most effective social policies and programs. Ensuring that social policies and programs are truly effective, and parsing out approaches that do not work, requires rigorous, policy-oriented research. Most importantly, it also requires public servants who are willing to invest in generating such evidence and genuinely apply lessons from research. What we term the "evidence-based mindset" for public servants is one in which they are both willing to learn and act upon rigorous evidence in the policy design process. In this chapter, practical questions faced by public servants are discussed as follows: How can rigorous evidence contribute to effective policymaking? What obstacles do public servants face in ensuring that evidence informs government policies? What are some effective strategies to promote an evidence-based mindset within a bureaucracy? The chapter concludes with key recommendations on how to develop an evidence-based mindset.

—— **1** ——

How does rigorous evidence it into policymaking?*

Governments will need to identify the most effective programs to meet the SDGs. Grounding their policies in rigorous evidence can help drive this agenda. This involves conducting needs assessments, descriptive surveys, qualitative studies, obtaining feedback from citizens, monitoring data on program implementation, and carrying out high-quality impact evaluations that provide causal evidence on the impact of programs and policies on people's lives.

When the Abdul Latif Jameel Poverty Action Lab (J-PAL)[58] works with government partners to engage with and use evidence in decision-making, its focus and expertise lie in conducting and increasing the use of evidence from randomized evaluations, a type of impact evaluation that provides a rigorous and unbiased estimate of a program's causal impact. In this chapter, when we mention evidence, we will primarily refer to evidence from randomized evaluations.

A randomized evaluation, also known as a randomized controlled trial or RCT, is one type of impact evaluation method. When designed and implemented well, randomized evaluations produce a rigorous and unbiased estimate of a program's causal impact. They can also be designed to investigate important questions about why a program works and for whom.

In a randomized evaluation, a large number of eligible program participants are randomly assigned to one of two or more groups before a program begins. One group receives the program (the "intervention treatment group"), and the other does not receive the program during the study period (the "comparison group"). Researchers measure the outcomes of interest in the intervention and comparison groups before and after the program is implemented. An important advantage of this type of evaluation is that random assignment, when appropriately executed, helps ensure that systematic differences between groups do not drive differences in outcomes. In other words, we can more confidently attribute the difference in outcomes to the intervention rather than to other factors.

When appropriately designed and implemented, randomized evaluations are powerful tools for measuring impact in policy research. The 2019 Nobel Prize in Economics[59], awarded to J-PAL co-founders Abhijit Banerjee and Esther Duflo and longtime J-PAL affiliate Michael Kremer, recognized this experimental approach as transformative to the field of international development.

Randomized evaluations generate rigorous answers to specific questions that a government or other organization seeks to address. They allow the organization to identify the impact of the tested program on outcomes of interest and adapt its policy and program accordingly. Learnings from randomized controlled trial evidence have informed government policies through a variety of pathways, including by:

- **Shifting global thinking:** Knowledge generated by randomized evaluations have fundamentally shaped our understanding of social policies.

- **Institutionalizing evidence use:** Governments have institutionalized processes for rigorously evaluating innovations and incorporating evidence into their decision-making.

- **Applying research insights:** Lessons from RCTs have informed the design of government programs.

- **Adapting and scaling a program:** Programs originally evaluated in one context have been adapted and scaled in others.

- **Scaling up an evaluated pilot:** Governments have replicated and expanded a successful evaluated pilot to similar contexts.

- **Scaling back an evaluated program:** Governments have scaled down, redesigned, or decided not to move forward with programs that were evaluated and found to be ineffective.

Learnings from randomized evaluations can enable governments to adapt their existing policies in favour of more effective and innovative interventions. The approach stands in contrast to one where decision-making is based on anecdotes, ideology, inertia, or private interests, which tends to be the norm in many bureaucracies.

*Authors: Adil Ababou (Bill and Melinda Gates Foundation), David Alzate and Eliza Keller (J-PAL)

—— **2** ——

Bridging the evidence-policy gap

Generating demand for rigorous evidence

The use of policy relevant RCTs has expanded across the world over the past decades. As of July 2020, J-PAL affiliated researchers had conducted more than 1,000 RCTs in nearly 90 countries, an increase from fewer than 200 in 2004[60]. Many of these evaluations have been conducted with government partners. Of the 400 million people reached by scale-ups of programs found to be effective after being evaluated by J-PAL affiliates, 85% were reached by government-led scale-ups.

In addition to J-PAL, a number of J-PAL's partner organizations, such as Innovations for Poverty Action (IPA), have built research infrastructure to generate rigorous causal evidence, contributing to the rise of policy-relevant RCTs. As shown in Figure 5.1, RCT registrations in the American Economic Association's RCT Registry increased from 112 registered RCTs in 2013 to a cumulative total of 3,550 in 2020. While this research is often published in academic journals, J-PAL and our partners have worked to make evidence from randomized evaluations accessible to broader audiences, including government partners, by writing hundreds of jargon-free summaries[61], analyzing policy insights from evaluations[62], and sharing them widely with high-level decision-makers.

Despite this rapid and significant expansion in the supply of RCT evidence, key questions remain: Are civil servants (1) open to learning from rigorous evidence and (2) willing to act upon the evidence and incorporate it in their decision making?

Recent randomized evaluations conducted by J-PAL affiliated researchers found that policymakers do value findings from rigorous research and that those findings influenced their mindsets, i.e., beliefs, and, ultimately, the policies they implemented.

Through two related randomized evaluations conducted in collaboration with the National Confederation of Municipalities in Brazil, Hjort et al. (2019)[63] found that policymakers were indeed interested in research findings and were willing to review their prior beliefs and act based on evidence. More specifically, policymakers were willing to invest in learning from evidence: 98 percent of the 900 public officials involved in the study were willing to pay to know the findings of a study, especially when the study had a large sample size and when the official was involved in implementing a similar policy in their municipality.

In addition, policymakers were willing to change policies based on evidence: mayors invited to participate in an information session about research that demonstrated the effectiveness of tax reminders letters were 10 percentage points more likely to implement tax reminder letters in their own municipality 15-24 months later, a 33 percent increase relative to the comparison group. Results from this study demonstrate that lack of access to research information can be a constraint to policymaking and that public officials can be sophisticated consumers of accessible and policy-relevant research.

J-PAL has found this to be true in many countries and contexts, not just Brazil. We have partnered on research projects and policy analysis with dozens of different governments, from municipalities in the United States to state governments in India to national ministries in Latin America, sub-Saharan Africa, and Southeast Asia.

While robust demand for evidence-based policymaking is certainly not the case for every government body at every point in time, there is broad scope for rigorous research and evidence-informed policymaking to become the norm for governments seeking to enhance the effectiveness of their actions.

Barriers to evidence use

Given that the supply of evidence has significantly improved over the past years, and that many policymakers are open to incorporating evidence into their policy choices, we should not expect to see such a large 'evidence-policy gap', defined as the difference between current policies and research findings on the most effective approaches. Evidence-informed decision-making is still the exception rather than the rule for many governments around the world. Why is this the case?

In an ideal world, policymakers would identify a problem, understand its roots, consider several options for solving it, identify the most effective solution, and implement it well. Data and evidence are crucial inputs in this process. However,

policymaking is neither a linear nor a simple process. In a 2019 report, "Creating a Culture of Evidence Use"[64], J-PAL conducted dozens of qualitative interviews in Latin America and identified a number of specific challenges contributing to the 'evidence-policy' gap:

- Low prioritization of and limited capacity for evidence-informed policymaking, especially when civil servants have limited time or are under the pressure of competing demands.

- Limited infrastructure for evidence-informed policymaking, including the capacity to understand and synthesize evidence.

- Financial constraints that prevent allocating resources to evaluations.

- Political uncertainty, whether at the institutional or administrative levels.

- Difficulty finding the right evidence and applying it to a new context as it requires spending resources to understand the nuances of existing evidence.

In addition to these challenges, recent literature has also sought to identify some of the behavioral biases at play that can prevent the emergence of an evidence-based mindset among policymakers. The policymaking process is not straightforward and involves many people bargaining over policy decisions under the pressure of time and competing demands. As a result, a policy can often rely on bounded rationality, where decision-making is limited by available information, cognitive limitations, and the limited amount of time available, which can lead to suboptimal policy choices.

Banuri et al. (2019)[65] have studied the existence of such cognitive biases in interpreting data for the purpose of providing advice to decision-makers. The researchers used two survey experiments conducted with civil servants in the United Kingdom and international civil servants working for the World Bank. Their findings suggest that civil servants may suffer from significant biases in their decision-making, including confirmation bias (when evidence is selectively used to support pre-existing views), and framing bias (when riskier decisions are taken based on whether options are presented with positive or negative connotations). Researchers found that deliberations, by subjecting a policy choice to a decision made by consensus, can mitigate some of these biases' effects.

Beyond those considerations, the system in which civil servants are embedded in needs to offer them an incentive to develop such an evidence-based mindset. As such, they need to be supported and authorized by their bureaucratic administration and have space to actually incorporate evidence in their policy recommendations. This can be achieved by administrative reforms where evidence is systematically considered a prerequisite or at least an asset to policy decisions.

Some of the strategies discussed in the next part could help lift some of the barriers mentioned and open the space for an evidence-based mindset to prevail in public decision-making.

Figure 5.1: Cumulative Randomized Controlled Trial (RCT) Registrations in the American Economic Association (AEA) Registry, 2013-2020
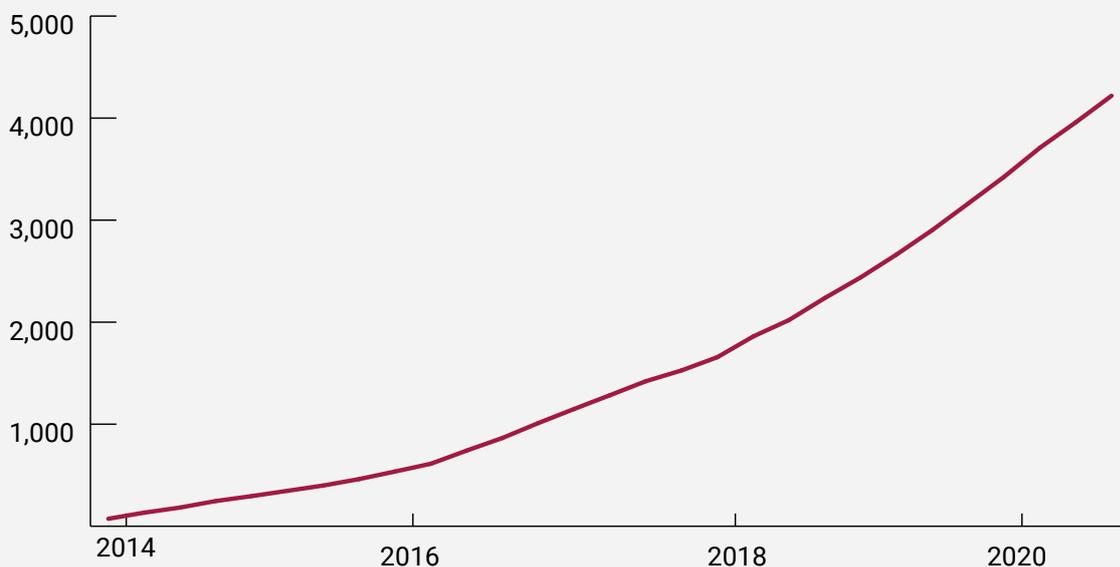
—— **3** ——

Strategies to develop an evidence-based mindset

While many of the ingredients required to develop an evidence-based mindset exist--such as the availability of evidence itself and policymakers' responsiveness to evidence--bringing these ingredients together to breach the evidence-policy gap requires active and concerted efforts by policymakers and organizations alike.

Since J-PAL was founded, our experience with more than 40 long-term partnerships with government agencies around the world has produced key insights on effective strategies to promote an evidence-based mindset within governments.

Strategy 1: Generating tailored evidence to solve specific problems identified by policymakers

In this case, researchers and policymakers work together to identify key policy issues and potential interventions to address them, and rigorously evaluate their impact to determine whether they should be implemented at scale.

An example of this strategy in practice comes from Gujarat, India, where J-PAL affiliated researchers partnered with the Gujarat Pollution Control Board (GPCB) to identify an effective method to curb excessive pollution, which was having damaging effects on air quality and people's health. While the state had been using auditors to monitor plants' emissions, the existing auditing system was thought to produce unreliable data. Through a randomized evaluation[66], researchers and the GPCB found that making auditors more independent from the companies they audited improved the accuracy of auditors' pollution reports, and lowered plants' emissions. Based on the results of this evaluation, the GPCB reformed its auditing system in 2015 to adopt new evidence-informed guidelines and practices. Members of the research team continue to work closely with officials in Gujarat and other Indian states on environmental policy design and evaluation, further strengthening the organization's evidence-based mindset.

Strategy 2: Leveraging existing evidence from around the world to inform local decision-making

Ensuring policy is informed by rigorous evidence does not always require conducting new randomized evaluations. An alternative strategy is to leverage RCT evidence generated in other contexts to inform local decision-making. In this regard, creating an evidence-based mindset also requires nurturing good consumers of rigorous evidence who are able to carefully apply existing findings to their local context.

It is unlikely that an existing impact evaluation will precisely answer a question that a policymaker is facing in precisely the location in which they are facing it. To help determine whether a particular approach tested elsewhere might make sense in their local context, we have used a generalizability framework[67] which breaks down the question "will this program work here?" into a series of questions based on the theory and existing evidence base behind a program, and identifies how these can be applied to solve a local problem. This approach can lower key barriers to evidence-informed policymaking, including time and cost.

For example, over the last three years[68], J-PAL Africa, Pratham, Innovations for Poverty Action, UNICEF Zambia, VVOB (a local education NGO), and USAID have supported the Zambian Ministry of General Education to pilot and scale up a remedial education program modelled off of Teaching at the Right Level (TaRL), an educational approach evaluated by RCTs and found to be extraordinarily effective[69] in India. Applying the program in Zambia has required careful thinking and analysis about the drivers behind Zambia's education challenges, whether local conditions in classrooms in Zambia—for example, variation among learning levels of children—were similar enough to those India for the intervention to be similarly effective, and whether education stakeholders were open to funding and implementing a program adapted from another country.

Ultimately, with support from J-PAL and our partners, the Ministry adapted a set of evidence-based implementation models based on TaRL to pilot in the country and is now planning to scale up the pilot based on its success.

Strategy 3: Institutionalizing a holistic culture of evidence use

J-PAL's work with public servants has demonstrated that going beyond standalone instances of evidence use and nurturing and sustaining an evidence-informed mindset requires:
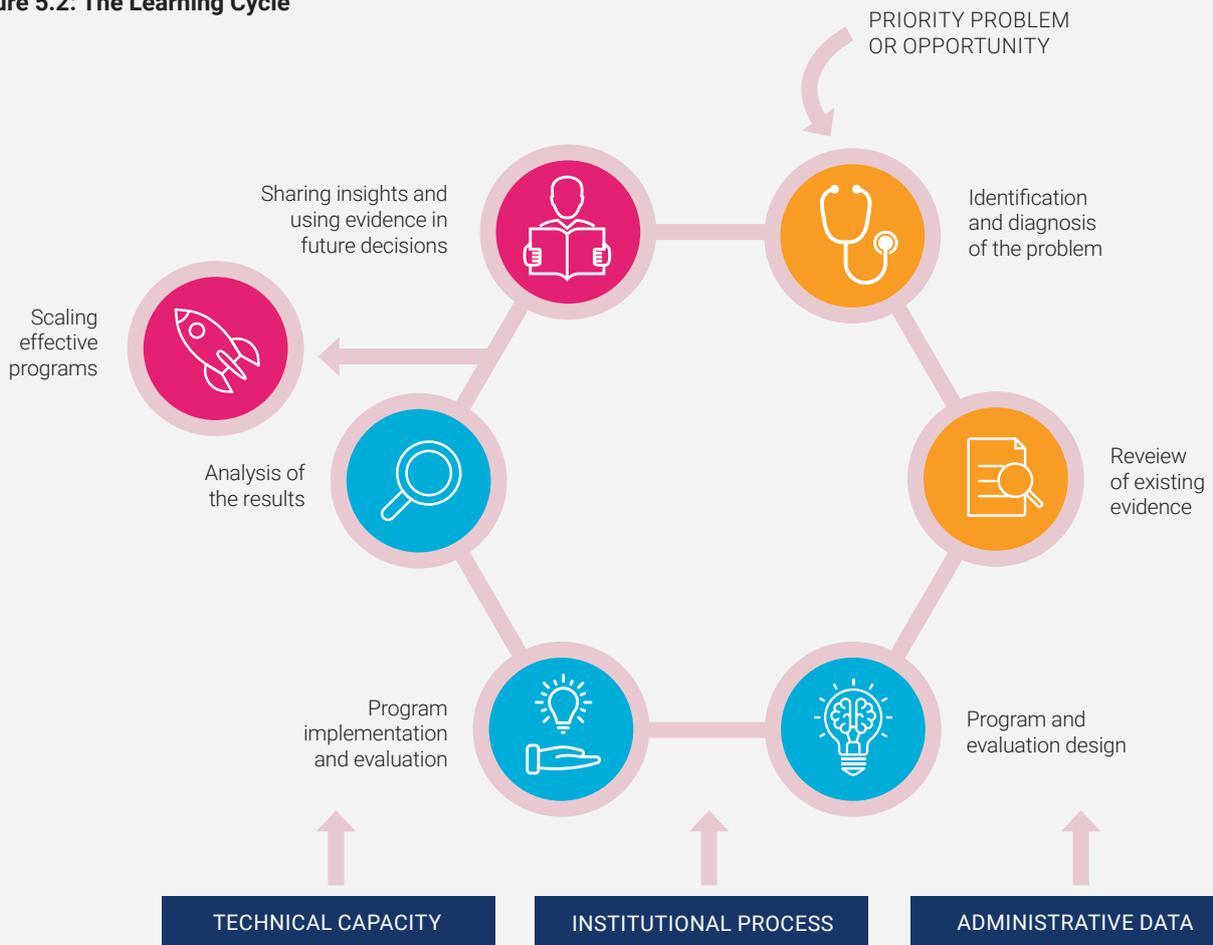
1. Prolonged, continuous interactions with governments to both generate and adapt evidence to the local context.

2. Strengthening the use and availability of administrative data.

3. Building a government's technical capacity around evidence use; and

4. Developing and reforming institutional processes that promote the use of evidence in decision-making.

Policymakers can work together with researchers and evidence-to-policy organizations to establish a continuous evidence-to-policy *learning cycle*. This cycle (Figure 5.2) involves continuously assessing the local context to identify priority problems and opportunities; reviewing existing evidence; applying the related findings and generating new evidence as needed; implementing, scaling, and evaluating programs; and in parallel building the capacity of public officials to be thoughtful producers and consumers of rigorous evidence.

Whether the partnerships focus on establishing an Evaluation Lab to systematically pilot, test, and scale new policy innovations, improving administrative data systems and analytics, or reviewing existing evidence to inform a new policy strategy, these multifaceted evidence-to-policy partnerships are designed to help governments use data and evidence more frequently and systematically.

Such partnerships often require reforms that can include creating systems and processes that encourage the use of data and evidence. While committed individuals can make evidence-informed decisions, creating an institutional culture requires formal systems, guidelines, and incentives for evidence use. These systems and processes can take many forms, from prescriptive and resource-intensive, on the one hand, to lighter-touch and more directional on the other. For example, the Department of Planning in the Indian state of Tamil Nadu created a dedicated fund for program evaluation of US$1.5 million per year in 2017. Alongside the creation of this fund, the Department also issued evaluation guidelines for impact evaluations of government programs. A less intensive example is the application criteria developed by the Chilean Ministry of Economy's Innovation Fund. Applicants to this competitive fund must include a theory of change and a review of existing evidence when seeking funding[70].

Figure 5.2: The Learning Cycle

PRIORITY PROBLEM OR OPPORTUNITY

Identification and diagnosis of the problem

Reveiew of existing evidence

Program and evaluation design

Program implementation and evaluation

Analysis of the results

Scaling effective programs

Sharing insights and using evidence in future decisions

TECHNICAL CAPACITY

INSTITUTIONAL PROCESS

ADMINISTRATIVE DATA

Phase 1: Diagnosis

Phase 2: Evaluation

Phase 3: Evidence use and learning

—— **4** ——

Building, designing, and sustaining evidence-to-policy partnerships

While the above strategies require policymakers to collaborate with researchers and evidence-to-policy organizations, building, designing, and sustaining these partnerships is a challenge in itself. Grounded on its experiences with government partners in Latin America, J-PAL has drawn the following key lessons for governments seeking to adopt an evidence-based mindset as highlighted in Table 5.1 here below.

Table 5.1: Key insights for governments looking to adopt an evidence-based mindset

1. It is important to allocate resources to evidence use and make it someone's job to apply evidence in policy design.

While many governments and donors fund evaluation, few hire personnel or allocate personnel time to focus on evidence use, which takes time, resources, and specialized knowledge. In some cases, evaluation departments have no formal mechanism for feeding results in program design. Allocating even a small amount of resources and personnel to apply the lessons from data and impact evaluations in policy design and implementation, and setting up systems that facilitate this institutional learning, is a crucial part of building a culture of data-driven and evidence-informed decision-making.

2. Similarly, creating dedicated spaces where evidence use is encouraged and rewarded can help build a culture of evidence-informed innovation.

It can be challenging for policymakers to propose new policy ideas or processes. Day-to-day responsibilities can crowd out innovation and experimentation, and evaluation is often seen only as a tool for accountability. Where it is possible to go beyond reserving a small amount of staff time and resources to evidence use, innovation labs and other institutions dedicated to identifying and testing new policy solutions create incentives and safe spaces to propose and evaluate new ideas. These dedicated spaces help build an understanding of data and evidence as tools for learning and improvement, rather than only for accountability.

3. Greater investment in administrative data collection, management, and inter-agency data sharing can go a long way in helping advance the evidence use agenda.

Developing more user-friendly administrative data systems can enable government employees to use data and evidence more regularly in program management and implementation. Good administrative data also significantly reduce the costs of impact evaluation, including evaluating at scale, making it easier to embed evaluation in the policy cycle.

4. Collaborating with evidence-to-policy organizations and researchers can help establish a culture of data and evidence use.

Organizations and researchers with expertise in generating, synthesizing, and applying data and evidence can be valuable partners in governments' efforts to use data and evidence more systematically. While some governments have the resources to build this expertise internally, many do not, and in these cases collaborating with others can help augment government capacity.

Source: Authors' elaboration

— 5 —

Conclusion and recommendations

Well-designed and implemented randomized controlled trials are a particularly rigorous way of establishing causal links between a program and its results. RCT evidence can play a key role in informing the policies aimed at achieving the 2030 Agenda Sustainable Development Goals. Despite the rapid increase in the supply of rigorous evidence and despite civil servants' willingness to learn from the evidence and apply its findings, an evidence-based mindset is still far from the norm for governments around the world.

But embracing this mindset is essential to unlocking government innovation and impact. This approach to governance can lead to the most promising policies and programs being implemented at scale, reaching millions of people with effective government services. This, in turn, helps build people's trust and confidence in their government.

Nonetheless, there remains a number of barriers in bureaucracies for the evidence-based mindset to prevail among civil servants. Existing strategies consisted in generating tailored evidence to solve specific problems identified by policymakers; leveraging existing evidence to inform local decision-making; and institutionalizing a holistic culture of evidence use between evidence-to-policy organizations and governments.

An evidence-based mindset in policymaking can be furthered through institutional partnerships that prioritize (1) the adoption of a continuous learning cycle of creating and adapting evidence to the local context, (2) leveraging the use of high-quality administrative data in decision-making, (3) parallel capacity-building efforts to generate good consumers and producers of evidence within government, and (4) further institutional reforms that promote the use of evidence in decision-making.

Much work remains to make an evidence-based mindset the norm for public servants, rather than the exception. J-PAL's rapidly growing network of affiliated researchers and government partners is indicative, however, of rising demand for policy-relevant evidence at all levels of government. Adopting this mindset has vast potential for wide-scale impact not only in government systems, but also in the lives of the citizens governments are seeking to serve.

Endnotes

58. The mission at the Abdul Latif Jameel Poverty Action Lab (J-PAL) is to reduce poverty by ensuring that policy is informed by scientific evidence. J-PAL's work for the past 17 years has involved training and partnering with to precisely foster this "evidence-based mindset," creating and institutionalizing an openness to learn and act based on research findings.

59. https://www.nobelprize.org/prizes/economic-sciences/2019/press-release/

60. https://www.povertyactionlab.org/blog/6-25-20/celebrating-milestone-1000-randomized-evaluations-j-pal-affiliates

61. https://www.povertyactionlab.org/evaluations

62. https://www.povertyactionlab.org/policy-insights

63. https://www.povertyactionlab.org/evaluation/informing-policy-research-brazil

64. https://www.povertyactionlab.org/page/creating-culture-evidence-use

65. https://academic.oup.com/wber/article/33/2/310/5530388

66. https://www.povertyactionlab.org/case-study/strengthening-third-party-audits-reduce-pollution

67. https://ssir.org/articles/entry/the_generalizability_puzzle

68. https://www.povertyactionlab.org/blog/8-31-18/applying-generalizability-framework-adopting-teaching-right-level-zambia

69. https://www.povertyactionlab.org/case-study/teaching-right-level-improve-learning

70. Carter, Samantha, et al. "Forging Collaborations for Scale: Catalyzing Partnerships among Policy Makers, Practitioners, Researchers, Funders, and Evidence-to-Policy Organizations." The Scale-Up Effect in Early Childhood and Public Policy: Why Interventions Lose Impact at Scale and What We Can Do About It, edited by Lauren H Supplee et al., Routledge, 2021.