

PracticeBRIEF

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Learn, Innovate, Improve (LI²): Enhancing Programs and Improving Lives

Who can use LI²?

A broad array of public and private sector human services practitioners can benefit from and use the LI² process. Human services include the variety of programs designed to help people lead successful lives—for example, work-force development and employment services, safety net programs, child welfare services, early childhood education programs, and healthy family programs, among others.

Human services practitioners want to improve their programs and practices in order to better help their clients. For various reasons, however, they may not always take a systematic, evidence-informed approach to program improvement. Such an approach could position the program for greater success while, at the same time, generating evidence to inform others facing similar challenges.

To meet this need, Mathematica Policy Research, in partnership with the Administration for Children and Families' Office of Planning, Research, and Evaluation (OPRE) and the Harvard Center on the Developing Child,¹ developed a framework for program improvement that embeds analytic methods into the process of designing, implementing, and iteratively testing program changes. The Learn, Innovate, Improve process—or LI²—is a series of replicable, evidence-informed program improvement activities, supported by collaboration between practitioners and applied researchers. LI² brings social science theory, research evidence, and practice wisdom together, with the goal of creating innovations that are practical, effective, scalable, and sustainable.

BACKGROUND

This brief is the first in a series that seeks to advance welfare and family self-sufficiency research and practice through enhanced linkages between social science and human services programming. This first brief provides a high-level overview of the LI² process; later briefs will offer more in-depth guidance for practitioners and applied researchers interested in using the process to improve program outcomes while generating actionable evidence for program decision making and the field. This brief can help research and practice audiences consider how a collaborative improvement process might work in their particular contexts and prepare them to execute such a process. Though participation in the LI² process will vary by setting, the program stakeholders involved often include

administrators, supervisors, and frontline staff; research partners typically—though not necessarily—come from outside the organization, so as to bring a fresh, external perspective.

THE THREE PHASES

The LI² process unfolds in three phases: Learn, Innovate, Improve. Each phase builds upon the previous phase, but programs may enter the process at any point, depending on their individual situation and readiness. The three phases are as follows:



LEARN

1. Learn: The first phase helps practitioners clarify their reasons for seeking change and the specific problem or problems they are trying to solve. The learning stage

¹ The Harvard Center on the Developing Child seeks to spur science-based innovation to improve outcomes for children facing adversity. The LI² process was adapted from the Center's Translational Science Model, a process for integrating research evidence into program development.

Learn in Action

As a result of legislatively mandated policy changes, the **Massachusetts Department of Transitional Assistance** had to find a way to accommodate an influx of more than 2,000 families to its employment services caseload. Supported by OPRE, Mathematica researchers spoke with managers, supervisors, and frontline staff in three diverse service locations to better understand how the impending changes would affect current practices. This “learning visit” enabled the research team to provide an objective assessment of the program environment and a subsequent strategic planning session introduced evidence-based and promising practices for program leaders to consider.

Innovate in Action

The **Colorado Department of Human Services** organized an Innovation Initiative composed of 19 counties across the state charged with creating innovative solutions to address low customer engagement in the Colorado Works (TANF) program. Representatives from the counties convened for a one-day workshop to explore existing research on issues of engagement and draw upon insights from behavioral science to design tailored solutions to their local engagement challenges. With support from a research coach, each county team crafted a *road map for change* detailing their program innovation and its expected outcomes.

The LI² process

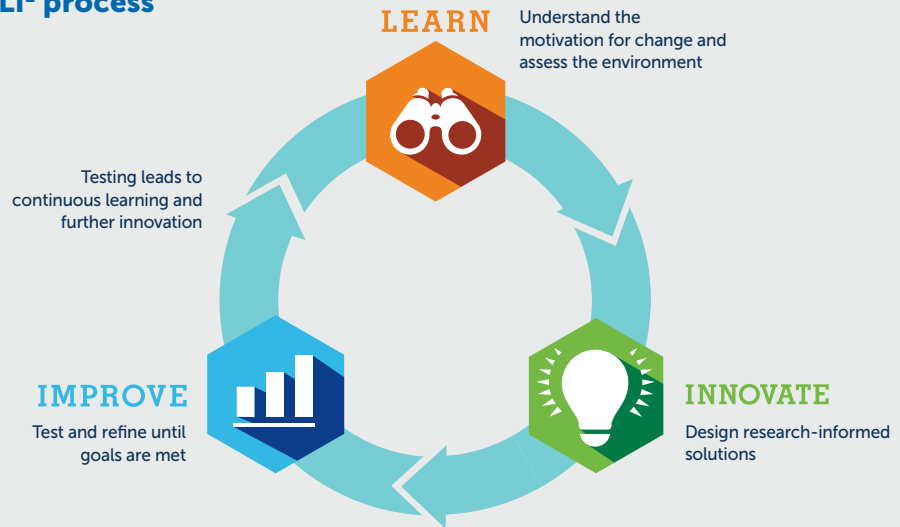


Figure 1

begins with an assessment of the program environment, when research partners and program stakeholders work together to identify problems, opportunities for improvement, and issues that could impede innovation. Even if program leaders already know the problem they are trying to solve, this phase can further define the issues and reveal avenues for improvement they might not have considered. Participants may conduct various types of investigations, including analyzing administrative or other data; assessing workflow; and leading interviews and focus groups with program administrators, staff, and clients. The goal during this phase is to use the principles of implementation science and best available information (such as existing research evidence and the practice wisdom of program staff) to understand and clearly articulate the policy or program issue that program stakeholders hope to address.



INNOVATE

2. Innovate: During the second phase, participants work to identify and prioritize potential solutions to the problems defined during the learning phase. Together with other stakeholders (such as outside experts and community partners, who may be involved as needed), they explore relevant research evidence along with theories and concepts from behavioral and social science in order to design a coherent and concise *road map for change*. The road map defines the proposed program innova-

tion at a granular level, specifying the concrete strategies, the desired outputs and outcomes, and hypothesized causal links between the intervention components and the anticipated changes. The road map is similar to a program logic model but more targeted to the specific change under consideration. Although the process is flexible, this work typically entails strategic planning with program stakeholders who will implement the change and researchers who will help them learn from the implementation process.



IMPROVE

3. Improve: In the third phase, participants develop and launch a series of *road tests*. These iterative tests are designed to pilot the program changes in contained practice settings in order to make adjustments before scaling up the innovation. This prototyping approach is often used by businesses to test a product, concept, or process before wider release. Together, participants articulate *learning questions* to prioritize what they want to learn from the road tests, taking into consideration their overarching objectives, available resources, and timeline. For example, a road test might address one or more of the following general questions at different points in time:

- Which tools are or are not working, and why?
- How is the innovation integrated with existing program activities?

An example of the road test process

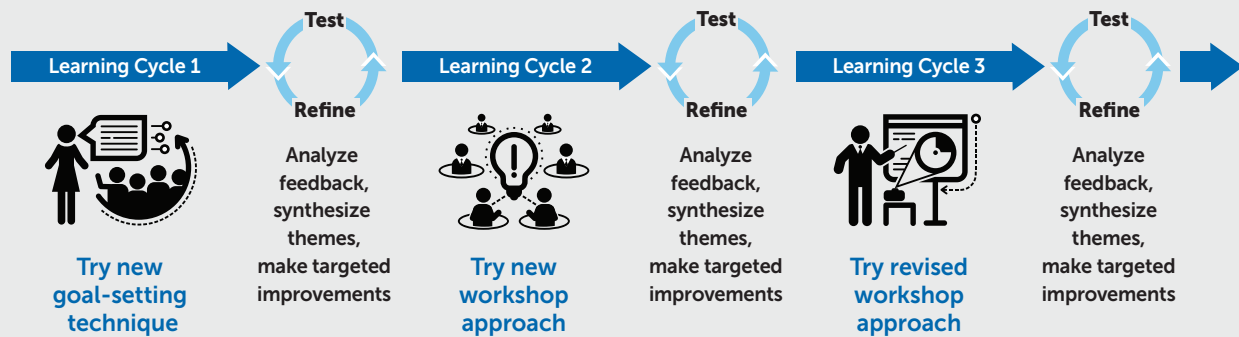


Figure 2

Improve in Action: Road Test

Ramsey County (Minnesota) Workforce Solutions

began using an executive skills-informed coaching model in 2016 as part of its Lifelong Learning Initiative—an enhanced service delivery approach for participants in the Minnesota Family Investment Program (the state’s TANF program). Instead of training all staff at once, the county conducted a road test to implement the coaching training and begin using new coaching tools. Frontline staff were grouped into three cohorts for the purpose of gradual implementation; each cohort received training and began using the coaching model and relevant tools with clients over a six-week period. During this time, staff and clients provided formative feedback on the new approach. The information was, in turn, used to improve the training, tools, and ongoing support structures for staff as they implemented the new model.

- How do staff and clients perceive the value and challenges of each new service strategy?
- What changes made during the innovation phase seem to be most promising and for whom?
- Is the innovation implemented with fidelity to the plan?

Participants also collaboratively determine the structure of the road test, which typically entails a series of *learning cycles* in which a few direct service staff and/or clients try out the program innovation and provide feedback over a short period of time. During each learning cycle, participants collect and analyze detailed information from program administrators, staff, and clients (as needed) about their experiences with the innovation. Data collection may involve interviews with program administrators and staff, observations (including supervisors observing staff and staff observing each other), and focus groups with staff and clients. Direct service staff may complete a short feedback form on their experience implementing the innovation and interacting with the innovation’s target population. At the end of each cycle, research partners analyze the data to address the stated learning priorities and summarize the results in a verbal or written report for program stakeholders, highlighting opportunities to refine the innovation and prompting the development of new learning questions. The road test is designed to generate usable information quickly and efficiently, while minimizing the burden on program staff. At the same time, it builds

program staff’s capacity to collect, analyze, and use data to support decision making and ongoing program improvement.

The *Improve* phase is intended to gradually build sustainable program changes which can, over time, be evaluated using increasingly rigorous methods. Following a road test to strengthen an intervention’s design, participants should consider how to incorporate small-scale experiments during scale-up, which could offer more reliable and robust evidence about the effectiveness of a given strategy on key outcomes of interest. Researchers may assist programs in identifying opportunities to embed such formative evaluation techniques into the process of rolling out a programmatic change. These “opportunistic experiments” are low-burden randomized controlled trials in which administrative data already collected by the program are used to build a knowledge base, before potentially conducting a larger-scale evaluation.² Opportunistic experiments typically evaluate the impact of program changes on intermediate outcomes, such as engagement in program activities, rather than on longer-term outcomes, such as employment and job retention. Improvements in longer-term outcomes may not be achievable within the relatively short rapid-cycle evaluation period. Program staff may want to consider evaluating longer-term outcomes after finding favorable impacts on intermediate outcomes. Researchers can help develop the research design and conduct other evaluation activities as needed.

Table 1 summarizes the objectives, methods, and outcomes of each phase of LI².

² For more information, see OPRE’s “Advancing Evidence-Based Decision Making: A Toolkit on Recognizing and Conducting Opportunistic Experiments in the Family Self-Sufficiency and Stability Policy Area” at https://www.acf.hhs.gov/sites/default/files/opre/oe_learning_what_works_toolkit_final_2_b508.pdf.

The LI² process

Phase	Objective	Methods	Outcomes
Learn	Clarify the reason for making a program change and understand the underlying problem to be solved.	Conduct qualitative and quantitative assessments of the program environment.	Develop a common understanding of the problems and identify possible challenges to program improvement and next steps for finding theoretically sound, evidence-informed solutions.
Innovate	Explore and design evidence-informed solutions that map to the problems identified during the learning phase.	Use program data, existing evidence, and other resources to make informed design choices.	Develop a “road map for change” that defines the intervention at a granular level, specifying the desired program changes and corresponding outcomes, and articulating the theorized causal links between them.
Improve	Execute a series of small-scale, analytic pilots, or “road tests,” to gather feedback and refine the intervention; build program staff’s capacity to collect, analyze, and use data for everyday program decisions and continuous improvement.	Conduct iterative testing of innovations using different methods for gathering feedback; for example, small numbers of direct service staff and program participants may “road test” tools, training, and other innovations over a short period. When ready, more rigorous evaluation techniques may be used to study implementation and test effectiveness.	Provide rapid, formative feedback to sites, identifying promising practices and suggesting targeted adjustments to strengthen the intervention; produce credible evidence about the innovation achieving its desired impact on short- and medium-term outcomes.

Table 1

KEY FEATURES

A few key features set the LI² process apart from other improvement and decision-support processes:

- Close collaboration to inspire innovation and support sustainable program improvement.** During LI², staff at all levels of an organization participate in the change process. They identify program constraints and explore the “adjacent possible”—that is, opportunities for change around the edges of how programs currently operate. Rather than focusing on the ideal, the focus is on achievable reforms and change is introduced through a series of incremental steps toward improvement. Practitioners buy into the process by investing time, insights, and in some cases, funding. The result is practitioner ownership of collaboratively identified innovations, which can support implementation and promote sustainability.
- Strong evidence and analytic approaches at every stage.** The LI² process integrates systematic and rigorous analytic approaches from social science with substantive expertise and problem-solving strategies such as human-centered design and business process analysis. In the learning phase, participants carefully analyze data on program policies and procedures to identify opportunities for improvement. In the innovate phase, they use existing evidence and practitioners’ insights to identify specific potential improvements. Finally, the iterative improvement phase supports a well-integrated program change that can be scaled and sustained.
- Capacity-building to institutionalize the improvement process within the program environment.** Through the close collaboration and structured analytic methods central to LI², practitioners can learn to use this analytic change process on their own.

Improve and Returning to Learn in Action: Evaluation

The Larimer County Workforce Center (serving a medium-sized county in northern Colorado) conducted an opportunistic experiment in partnership with a research team. The agency developed a set of low-cost messaging strategies, informed by behavioral science principles, designed to improve clients' timely submission of work participation reports each month. To test these strategies, the workforce center conducted two small-scale experiments, supported by OPRE. Each experiment involved randomly assigning around 400 clients to either a treatment or control group and then comparing short-term outcomes to see whether or not the interventions improved timely submission rates. Ultimately, these experiments showed that the interventions did *not* improve the outcomes of interest, leading the agency to return to the Learn stage and consider a new approach to addressing this particular challenge.

This helps to institutionalize a continuous improvement process in which programs regularly examine their own data, look for opportunities to innovate, and track changes over time.

- **Emphasis on building the knowledge base.** The LI^2 process generates evidence for everyday policy and program decision-making. At the same time, it lays a foundation for rigorous program evaluation by identifying the problem and articulating a plan for improvement in the “road map,” including clear specification of the innovation

and related implementation and outcome indicators. As participants track these indicators during the “road test,” they generate evidence that can be used for refinement or scaling of the innovation. This process creates a feedback loop for learning what works for whom and under what conditions. By encouraging collaboration between researchers and practitioners and offering an efficient and replicable structure for their shared efforts, the LI^2 process can make innovation and improvement a regular part of program development and implementation.

