Summary of NIRN’s Stages of Implementation

The National Implementation Research Network (NIRN) defines implementation as “a specific set of activities designed to put into practice an activity or program” (Fixsen, Naoom, Blase, Friedman, & Wallace, 2005, p. 5). NIRN has researched program implementation across disciplines, including social services, business, engineering, and education, providing a broad overview of the challenges and facilitators. Its review highlights major problems in implementation practice, such as relying solely on implementation “by edict” or training alone, or implementing a new intervention without fidelity, without a broad enough scale to effect change, or without a plan for sustainability.

# Stages of Implementation

NIRN's work is based on a cross-disciplinary literature review, which identified a sequence of stages that implementation efforts must address in order to be successful: *exploration and adoption*, *program installation*, *initial implementation*, *full implementation*, *innovation*, and *sustainability*. These stages represent an iterative process, as efforts are reassessed or reevaluated in light of new realities.

NIRN estimates that the first four phases described here take systems from two to six years to implement. In addition, NIRN emphasizes the importance of aligning the goals of the immediate setting with the layers of settings that connect it to the larger community—the district, the community, and the state. Starting with the goal in mind is essential to implementation efforts’ integrity and evaluation plans. Planning for a clear goal will help chart a particular course with specific choices, consequences, and intended outcomes. NIRN’s work highlights the importance of a dedicated implementation team – a single champion cannot carry out the system-level work necessary to effect real school-wide change.

## Exploration and Adoption

This stage is the initial process of problem articulation and solution identification. What is the problem that requires focused remediation? For example, “reducing bullying” is too vague; “reducing the number of incidents of harassment and bullying on afternoon bus rides from the high school" is a much more narrowly identified problem.

Getting to the heart of an identified problem is not easy. Many layers of perceptions, assumptions, and habits often have to be peeled away. It may require several months of data analysis and discussion to pinpoint areas of systemic weakness.

Once a problem is identified and well-defined, the team needs to explore the possible evidence-based solutions available to address it. Where can you find programs and solutions that have evidence of effectiveness and how can you compare alternative which programs best fit your setting? (See *List of Resources on Evidence-Based Practices.*)

Bringing practitioners and stakeholders together around the solution is a challenge that needs to be faced in this early stage. The implementation teams need to have a dialogue with colleagues and the larger community to ensure that the problem and solution are aligned with the broad goals of the community.

## Program Installation

This stage focuses on the system that is being altered in order to take on the process of implementing a new program or solution. Dean Fixsen, co-director of NIRN, shares that this stage is the most often overlooked in education. Schools and practitioners, it seems, do not have the organizational habit as do community-based organizations or commercial enterprises that an existing system needs to be “built out” in advance of starting a new program. Rather, schools often adopt a new program or initiative as an add-on to existing staff, time, equipment, and commitments. Too often, the result is a disappointment for all involved.

Ideally, this stage of implementation involves taking stock of existing resources—human, physical, and financial—for possible reassignment, as well as addressing resource gaps for the planned new program. Some questions to ask at this stage include:

* Do new policies need to be written to reflect the upcoming changes?
* Do existing staff members have the expertise to implement the identified solution or are new hires necessary?
* Who will deliver the training, and when and where? How will staff and stakeholders be paid or compensated for attending the training?
* How will the effectiveness of the training be measured and how will ongoing learning be supported?
* Are our physical space, infrastructure, and equipment adequate?
* Can additional funding streams be sought to cover the long-term costs?
* What outcome measures will be watched and how will progress be tracked? What are the benchmarks? What metrics will be used?

Paying attention to issues such as these demonstrates a commitment by the system and its leaders to ensure that a program or project and its practitioners will be supported through the implementation.

## Initial Implementation

While program installation focuses on the alterations to the system, initial implementation focuses on the changes that must occur in practice. Resistance may arise when practitioners experience the uncomfortable sensation of changing their practice—using new language, routines, or documentation. Supporting practitioners through this stage is critical, NIRN cautions, “when the program is struggling to begin and when confidence in the decision to adopt the program is being tested” (Fixsen et al., 2005, p. 16). This is not a pilot test of the program, but the initial roll-out with practitioners.

Schools and districts can get stuck in this mode of initial implementation, trying on one solution after another, but not persisting through the initial resistance until practitioners incorporate the program into their practice. If coupled with a lack of attention to preparing the system to incorporate a new intervention in the program installation phase, the intervention will enter the system on very shaky ground indeed; it is not a surprise in these circumstances that practitioners resist rather than try to accommodate a new program without additional support.

Factors found to be key supports to program implementation include:

* professional development that is planned, intentional, and part of an ongoing, school-wide effort;
* leadership, in which school leaders serve as role models, cheerleaders, and facilitators, and ensure that teachers have the needed resources;
* organization and a structure that supports, encourages and recognizes change efforts; and
* resources and support, internal and external, such as administrative leadership, buy-in from the community, and partnerships with other relevant organizations.

## Full Implementation

Once an evidence-based program or practice has been scaled up—adopted in a system as standard practice—it can be considered in the full implementation phase. Practitioners become reflective and more skillful in their practice of the program. The system reflects the program’s core elements of practice, language, and outcome measures. Benefits of the program begin to show in the data. This phase reflects the feedback loops from practitioners, stakeholders, and collected data to managers and administrators that help solidify the full implementation of the program.

This phase is sensitive to the balances in the system that got it started. As staff shift—in roles and responsibilities as well as in number—the core team of champions is likely to change, meaning the original training grows diffuse among the team. Change in leadership roles, in particular, expose the implementation process to setbacks and detours. NIRN’s model of Core Implementation Components (see figure below) illustrates an understanding of how these inevitable shifts can be counterbalanced with planning and a focus on program-centered practice, rather than practitioner-centered practice. For example, over time, recruitment criteria may become more relaxed, bringing less experienced staff into the system; one remedy is to make pre-service training more rigorous to fill in the gaps for the new practitioners. Similarly, if administration supports are withdrawn or lost through attrition, other components will need to be strengthened to keep implementation moving forward; perhaps stronger, more expert coaching on site.



Systems in this phase of implementation are ready to research the effectiveness of their efforts and revisit alignment with the broader goals of the community, which may have shifted since the program was developed. Those involved might work with the program developers or others to determine the effectiveness of a program functioning in place compared to the evidence base behind the program. Questions to consider include:

* Are the outcome measures at the expected level of performance? Why or why not?
* Are the expected performance standards still appropriate?
* Have the goals of the community and district shifted since the program began? Is the program still aligned to the larger goals?
* What does a cost analysis of training and investment show as a return on investment with this program?
* What do our practitioners think of this program? Has it become expected practice and spread beyond the champions?

These types of questions go beyond annual evaluation data to a more in-depth evaluation of the process from the inception.

## Innovation

Sites and teams should attempt to implement a program with as much fidelity as possible from the early stages in order to collect and evaluate outcome data and compare results against the evidence base. This will help establish the credibility of the implementation effort and validate the hard work practitioners invest in implementing a new program.

However, each site will need to make some adaptations to any external evidence-based program that is adopted. Unique community, population, or personnel factors will necessitate the inevitable shift from the pure design.

How can your team identify those elements that characterize a program and are key to the successful outcomes reported in the literature? What can change and what must be adopted as is? These questions are real challenges for practitioners far removed from the original researchers and program designers. One solution is to engage the designers or researchers in dialogue or consultation about your sites’ adaptations.

Another option is to work with an intermediary entity that might have experience with the model and previous implementation efforts. Any adaptation to an evidence-based program needs to be carefully planned to retain fidelity of the program to achieve results. Continued data collection and evaluation are important to track the success of the innovation.

## Sustainability

Planning with the ends in mind means that sustainability, far from the last stage on the list, is an integral part of the implementation process as a whole. We have all seen implementation efforts led by a single champion or team that have struggled and withered when one member of the team is reassigned or the external coaching support is withdrawn. Long-term vision should be an integral part of the entire implementation model, requiring that teams focus on support, scaling up, and sustainability from the inception of the planning process.

# References

Fixsen, D. L., Naoom, S. F., Blase, K. A., Friedman, R. M., & Wallace, F. (2005). *Implementation research: A synthesis of the literature*. Tampa, FL: University of South Florida, Louis de la Parte Florida Mental Health Institute, The National Implementation Research Network (FMHI Publication #231).

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