



FOUR DOMAINS FOR RAPID SCHOOL IMPROVEMENT AN IMPLEMENTATION FRAMEWORK

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<http://sisep.fpg.unc.edu/>

About the National Implementation Research Network

The mission of the National Implementation Research Network (NIRN) is to contribute to the best practices and science of implementation, organization change, and system reinvention to improve outcomes across the spectrum of human services. Our goals are to: advance the science of implementation across human service domains (e.g. health, education, social services); inform policies that promote implementation science and best practices in human services; and ensure that the voices and experiences of diverse communities and consumers influence and guide implementation efforts.

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The development of the Four Domains for Rapid School Improvement: A Systems Framework was a group effort in every way by members of the Center on School Turnaround Leadership Team.

http://centeronschoolturnaround.org/wp-content/uploads/2017/02/CST_Four-Domains-Framework-Final.pdf

About the Center on School Turnaround

The Center on School Turnaround (CST) is one of 7 national Content Centers in a federal network of 22 Comprehensive Centers. The goal of the CST is to provide technical assistance and to identify, synthesize, and disseminate research-based practices and emerging promising practices that will lead to the increased capacity of State Education Agencies to support districts in turning around their lowest-performing schools.

<http://centeronschoolturnaround.org>

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The Center on School Turnaround (2017) recently published *The Four Domains for Rapid School Improvement: A Systems Framework*. The four domains describe *what* to do: harness turnaround leadership, facilitate talent development, foster instructional transformation, and enable a culture shift. The aim of this paper is to describe *how* to use these improvement domains in practice. As stated by the Center for School Turnaround (2017):

“To the extent that educators at the state, district, and school level are able to implement these practices in a contextualized fashion, a state’s education ecosystem is strengthened, with the system bolstering rather than hindering school improvement efforts. In this increasingly supportive ecosystem, dramatic improvement is no longer manifested in “islands of excellence.” Instead, these routinized practices positively affect low performing schools across the board, making excellence the norm rather than the exception. Through these practices, systemic improvement becomes “the way we do business” at the state, district, and school levels.” (p 32).

In short, *if effective* practices are implemented by teams who focus on implementation efforts in a system that enables school improvement *then* systematic improvements can become the standard way of work in a high functioning education system. Enabling contexts are the product of educators and teams purposefully making changes in district and school systems so that practices are used as designed and their effectiveness is sustained over time.

Skilled teams who focus on implementation efforts contribute significantly to sustained use of effective practices over generations of practitioners (Tommeraaas & Ogden, 2016) and can support an expanding number of effective practices as the implementation infrastructure matures (Karlin & Cross, 2013). The “14% successful use of effective practices after 17 years” data make sense. It has taken over 60 years of transdisciplinary collaborative efforts globally to develop implementation practice and science as it is understood today.

With the support of skilled teams who focus on implementation, districts can expect 80% successful use of effective practices in about 3 years (Chamberlain, Brown, & Saldana, 2011; Fixsen et al., 2001); without the support of skilled teams who focus on implementation districts might achieve 14% successful use of effective practices after 17 years (Balas & Boren, 2000; Green, 2008).

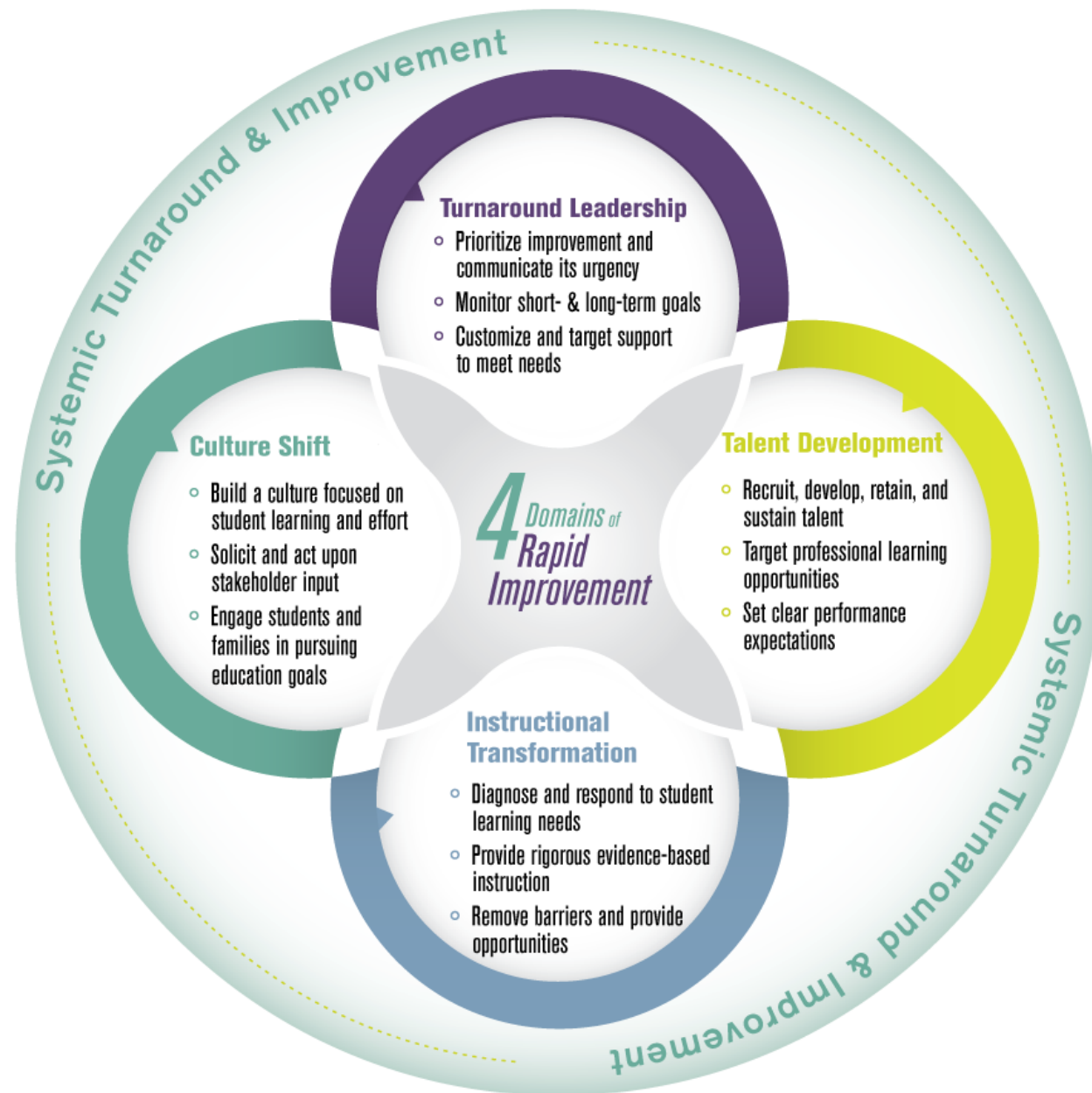
Know-what is one thing and *know-how* is something else entirely different (Darling-Hammond & McLaughlin, 1995; Tucker, Edmondson, & Nembhard, 2005); it is the difference between a serum and a syringe and the difference between computer hardware and computer software. Either one alone is not sufficient, understanding one is not much help in understanding the other, and both must work together to produce a desired outcome. Know-how is the domain of implementation science: “the study of factors that influence the full and effective use of practices. The goal is not to answer factual questions about what is, but rather to determine what is required” (National Implementation Research Network, 2015). *Doing* what is required or “making it happen” is the key to the full and effective use of turnaround practices in education (Fixsen, Blase, Metz, & Van Dyke, 2013; Greenhalgh, Robert, MacFarlane, Bate, & Kyriakidou, 2004; Hall & Hord, 1987).

The fields of implementation and scaling have advanced rapidly in the new millennium (Fixsen, Blase, Metz, & Van Dyke, 2015; Fixsen, Naoom, Blase, Friedman, & Wallace, 2005; McIntosh, Mercer, Nese, & Ghemraoui, 2016; Meyers, Durlak, & Wandersman, 2012; Tabak, Khoong, Chambers, & Brownson, 2012). Today, we realize implementation principles are universal with evidence and methods derived from and applicable to multiple fields. Additionally, the practices of implementation and scaling are transdisciplinary, and this paper will draw on a diverse literature within and outside of education. As noted in the passage above, effective practices without the support of implementation principles in practice are not likely to produce the intended outcomes in education, especially in turnaround schools and classrooms (Durlak & DuPre, 2008; Naleppa & Cagle, 2010).



Key features of turnaround: *Know-what*

The *Four Domains for Rapid School Improvement: A Systems Framework* describes the key features of each domain (*what to do*): *Turnaround leadership, Talent Development, Instructional Transformation, and Culture Shift.*



Key features of turnaround: *Know-what*

TURNAROUND LEADERSHIP DOMAIN:

Turnaround leaders at the state, local district, and school levels drive initiatives to facilitate rapid, significant improvement for lowperforming schools. Because the state education agency, districts, and schools function collectively as a system, leaders' initiatives at any one level of the system affect other levels. At all levels in the system, leaders make it a priority to elevate the performance of low-achieving schools, and they communicate the urgent need for turnaround so that all students receive the high-quality education they deserve. The policies, structures, resources, and personnel that leaders put in place to rapidly and significantly improve the schools reflect the leaders' strong commitment to this work. Turnaround leaders catalyze and organize the coordinated work of the staff charged with implementing efforts to rapidly improve schools, harnessing their efforts and drawing them to a shared vision of success. Leaders at all levels understand their role in ensuring turnaround; they develop and execute data-informed turnaround plans that are customized to local needs to guide and monitor turnaround initiatives; and they accept responsibility for results.

TALENT DEVELOPMENT DOMAIN:

Turnaround requires competent and committed personnel at every level and in every position. Policies and procedures to identify, select, place, retain, and sustain these personnel, especially teachers and school-level leaders, are a precursor to school turnaround, and staffing of teachers and leaders for turnaround schools should be approached with equity in mind. Turnaround competencies are identified and used to select and develop turnaround teachers, model teachers, and leaders. At all levels, educators utilize and hone their instructional and transformational leadership to build capacity in those they supervise by continually balancing support with accountability.



Key features of turnaround: *Know-what*

INSTRUCTIONAL TRANSFORMATION DOMAIN:

Improvement in student learning outcomes depends on system-wide support for change in the classroom instruction. Effective instructional practice, including strong standards-based instruction, data-based planning, differentiation and individualization, research-based pedagogical approaches, and classroom management, must be identified and supported at the school, district, and broader system level. Schools cultivate an environment of both high expectations and support for students' academic accomplishment. While districts and schools strive to focus their organization's attention on the in-school factors impacting student performance, they also attempt to address factors that are traditionally non-school-based so that every student comes to the task of learning ready for the challenge.

CULTURE SHIFT DOMAIN:

A successful turnaround depends on many people working together to achieve extraordinary results. Attaining the necessary level of commitment to achieve these results requires a dramatic culture shift toward both high academic expectations and concerted effort. A turnaround culture fuses strong community cohesion with an academic press; one without the other is insufficient. Leadership establishes the structures and opportunities for faculty and staff to work together around common goals, engendering a culture of mutual respect, shared responsibility, and focused attention on student learning. State, district, and school leaders engage families to support their children's learning and the overall turnaround effort. A strong school community attends to the culture both inside and outside the school, gathering input from stakeholders and gauging perceptions about the school and the turnaround effort. Students are challenged and supported to aim higher, work harder, and realize the satisfaction of accomplishment. A positive school climate reflects a supportive and fulfilling environment, learning conditions that meet the needs of all students, people sure of their roles and relationships in student learning, and a culture that values trust, respect, and high expectations.

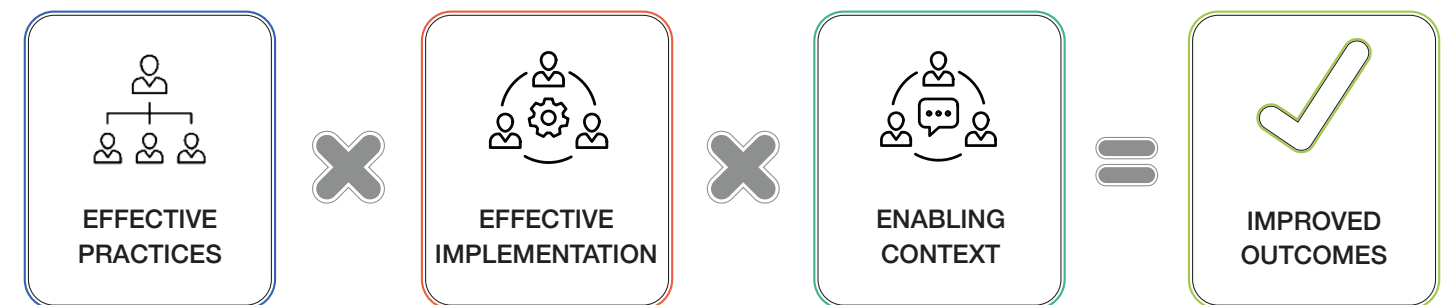


Key features of implementation and scaling: *Know-how*

Given the generalizability of implementation and scaling practices, educators do not need multiple or separate approaches to make it happen in each turnaround domain, nor do they need to imagine, develop, and use a different version of implementation in each of the 98,000 schools and each of the 14,800 districts in the U.S. to support the key features of turnaround. Instead, a common approach that is flexible to specific situations and contexts, based on the best available implementation and scaling evidence, can work similarly across all education settings.

Figure 1 shows the *Formula for Success*. If *Effective Practices* (**WHAT** needs to be used and done) are multiplied by *Effective Implementation Methods* (**HOW** system-wide supports are developed and used) and multiplied by an *Enabling Context* (**WHERE** hospitable environments are nurtured), then Educationally Significant Outcomes will result.

FIGURE 1
THE FORMULA FOR SUCCESS



Key features of implementation and scaling: *Know-how*

Hence, the *Formula for Success* can be applied and realized to assure that the *Four Domains for Rapid School Improvement* are integrated into “routinized practices to positively affect low performing schools across the board.” This will require attention to Effective Practices or creating *Instructional Transformation* through the development of *what* will be used to create system-wide support for change in classroom instruction. Simultaneously, commitment to Effective Implementation Methods or *Turnaround Leaders* who focus on *Talent Development* and *how* to build capacity for personnel at every level of the system. Concurrently, *Turnaround Leadership* is part of an Enabling Context where an intentional focus is placed on *Culture Shift* so “policies, structures, resources and personnel are in place to fuse community cohesion and academic press.” To this end, the goal of routinized practices positively effecting low performing schools across the board (CST, 2017) requires the design of a specified set of activities (Fixsen et al., 2005). Implementation science research and practice show how to make full and effective use of the Four Domains for rapid school improvement and produce educationally significant outcomes.

The Active Implementation Frameworks embody operationalized¹ best practices. These frameworks rest on a foundation of the best available implementation and scaling research-based and practice-based evidence (e.g. Blase, Fixsen, Naoom, & Wallace, 2005; Chamberlain, 2003; Domitrovich et al., 2008; Drake et al., 2001; Fixsen, Blase, Timbers, & Wolf, 2001; Fixsen et al., 2005; Ogden, Forgatch, Askeland, Patterson, & Bullock, 2005; Schoenwald, Brown, & Henggeler, 2000; Taylor et al., 2014). The proactive use of the Active Implementation Frameworks in education (Fixsen, Blase, Metz, & Van Dyke, 2013) and other human services (Metz et al., 2014; Peterson, 2016) have demonstrated effectiveness in achieving significant outcomes. Both the National Implementation Research Network (NIRN) (<http://nirn.fpg.unc.edu/>) and the Active Implementation Hub (Ai Hub; <http://implementation.fpg.unc.edu>) websites describe the research basis of the Active Implementation Frameworks and provide specifics on how to use them, including useful tools to guide implementation practice.

In addition, the NIRN site also provides descriptions and examples of implementation measures (<http://nirn.fpg.unc.edu/learn-implementation-webpage>). A virtuous cycle (Fox & Gershman, 2000) emerges as the frameworks guide necessary implementation practices, with participants using implementation measures to assess outcomes and the data in turn informing the modification and improvement of implementation practices.



¹ Operationalize: prepare for use; make functional

Key features of implementation and scaling: *Know-how*

The Active Implementation Frameworks consist of five frameworks that function in a highly integrated manner:

1

USABLE PRACTICES:

operational descriptions of practices that include a practical assessment of fidelity that highly correlates with intended outcomes

2

IMPLEMENTATION TEAMS:

groups highly skilled in the use of the Active Implementation Frameworks and affecting organization and system change

3

IMPLEMENTATION DRIVERS:

methods to assure the development of practice-related competencies, organization changes, and engaged leadership that support high-fidelity use of practices

4

IMPLEMENTATION STAGES:

exploration (creating readiness), installation (amassing human and financial resources), and initial implementation activities and outcomes (beginning to support the use of the practice) that eventually lead to full implementation within organizations and systems (with at least 50% of the practitioners in an organization in a given month meeting fidelity standards for using the practice)

5

IMPROVEMENT CYCLES:

plan-do-study-act cycles for purposeful problem solving and continual improvement in methods and outcomes

The national Every Student Succeeds Act and the Office of Special Education Programs Results Driven Accountability State Systemic Improvement Plans require the use of practices supported by evidence. This is a good place to start; why waste resources on attempting to use practices that are not effective and, perhaps, even harmful? For the full and effective use of practices, evidence is necessary (but not sufficient alone) for achieving the goals of school turnaround and Instructional Transformation that provides guidance on using evidence to select a practice.

Any practice needs to be usable: that is, teachable, learnable, doable, and assessable in practice. To accomplish these goals, the Active Implementation Frameworks have four criteria for a usable practice:

- 1. A clear description of the practice, the philosophy and values embodied in the practice, and criteria for inclusion and exclusion of those who are intended to benefit from the practice.**
- 2. A clear description of the essential components that define the practice and that the effective practice requires**
- 3. Operational definitions of the essential components that describe the core activities of each component; that is, what the user of the practice will do and say, with whom, when, etc. as well as what the user should not do when using the practice in interaction with others. Operational definitions promote functional consistency across staff using the practice.**
- 4. A practical fidelity measure, highly correlated with intended outcomes, that assesses the presence and strength of the practice.**

While these criteria seem simple, they are difficult to meet. Researchers and practice developers rarely identify and/or operationalize essential functions or provide fidelity measures (Crosse et al., 2011; Naleppa & Cagle, 2010). *Instructional Transformation* requires the development of system-wide support for effective classroom instruction. As a state leader in the field noted, “our past failures to improve student outcomes start right here.” However, state leaders today are seeing the wisdom in clearly defining, operationalizing, and measuring the use of a practice.

States begin the process by selecting a group comprised of internal and external stakeholders with expertise in implementation practice and expertise in the content area: state, region, district, school, university, and community stakeholders. Careful selection of experts and practitioners who are represented in the community provide credibility and eventual usability of the practice. Everyone hears and sees their voice in the process (teachers who will use the practice; leaders who will support the use). This Culture Shift fuses strong community cohesion with academic *press* (the extent to which school-wide environmental forces press for student achievement) and establishes structures to work together around common goals and shared responsibility. Ensuring voice in the process is intentional both to learn and act on what constituents think. When this wealth of information comes together, the vetting process can begin, analyzing

selected practices for need, fit, resources, evidence, readiness, and capacity to use. The group uses the Hexagon tool (Hexagon Exploring Context; <http://implementation.fpg.unc.edu/resources/hexagon-tool-exploring-context>) to select a practice with the strongest evidence—evidence that it will be teachable, usable, doable, and easily assessed in practice. Then, they use the literature on best practice to agree upon a common philosophy, as well as to identify and operationalize the core components of the practice to make it measurable. (This process often takes an average of 6-12 months.)

“Our past failures to improve student outcomes start right here.”





The final step, identification of the fidelity measure, is often a challenge because many practices do not have an accompanying research-based fidelity measure. Given the absence of fidelity measures some adopt the Observational Tool for Instructional Supports and Systems (OTISS; Fixsen, Ward, Ryan Jackson, & Chaparro, 2015). The OTISS assesses seven evidence-based instructional practices highly correlated with student learning (Hattie, 2009) and observable inside a 10-minute segment of instruction within any content area or grade level (OTISS, 2017). The OTISS is an observation of teacher instruction, and its data inform assessments of the effectiveness of supports to teachers (e.g., training, coaching, resources). It is important to note that fidelity data are *not* a component of teacher evaluation, a point that requires consistent communication to teachers and leaders who commit to using any form of fidelity data to measure the effectiveness of implementation methods and instructional practices. Instead, fidelity data inform next steps in training and follow-up coaching to bolster teachers content knowledge and use of rigorous, evidence-based instruction.

Throughout the process of selecting curricular and instructional supports to transform instruction, group members communicate their progress to their constituents, associated teams, and school staff so everyone remains involved as the process unfolds. Careful attention to

communication (e.g. intentional use of a communication protocol) ensures that school staff and teachers are ready for *Instructional Transformation* and use of the *what* (Effective Practice). *Turnaround Leaders* support the development of the *how* (Effective Implementation Methods) to focus on *Talent Development* and build capacity for personnel at every level of the system. Concurrently, *Turnaround Leadership* works to establish an Enabling Context *where* an intentional focus is placed on *Culture Shift* so “policies, structures, resources and personnel are in place to fuse community cohesion and academic press.” Turnaround leaders provide guidance on using evidence to select curricular and instructional supports.



The four turnaround domains described in *The Four Domains for Rapid School Improvement: A Systems Framework* prompt attention to a variety of practices that must meet the usable practice criteria. For example, **Turnaround leaders** catalyze and organize coordinated work, develop and execute data-informed turnaround plans, and customize plans. A **workforce** is identified, selected, placed, retained, and sustained; turnaround competencies are identified and used to select and develop turnaround teachers, model teachers, and leaders; educators utilize and hone their instructional and transformational leadership competencies. **Improvement in student learning** outcomes depends on system-wide support for change in the classroom instruction; the education system must identify and support effective instructional practices, strong standards-based instruction, data-based planning, differentiation and individualization, research-based pedagogical approaches, and classroom management.

A successful turnaround requires a dramatic **culture shift** toward both high academic expectations and concerted effort; a turnaround culture fuses strong community cohesion with an academic press; state, district, and school leaders engage families to support their children’s learning; a strong school community attends to the culture both inside and outside the school; raised expectations and better supports challenge students to aim higher, work harder, and realize the satisfaction of accomplishment.

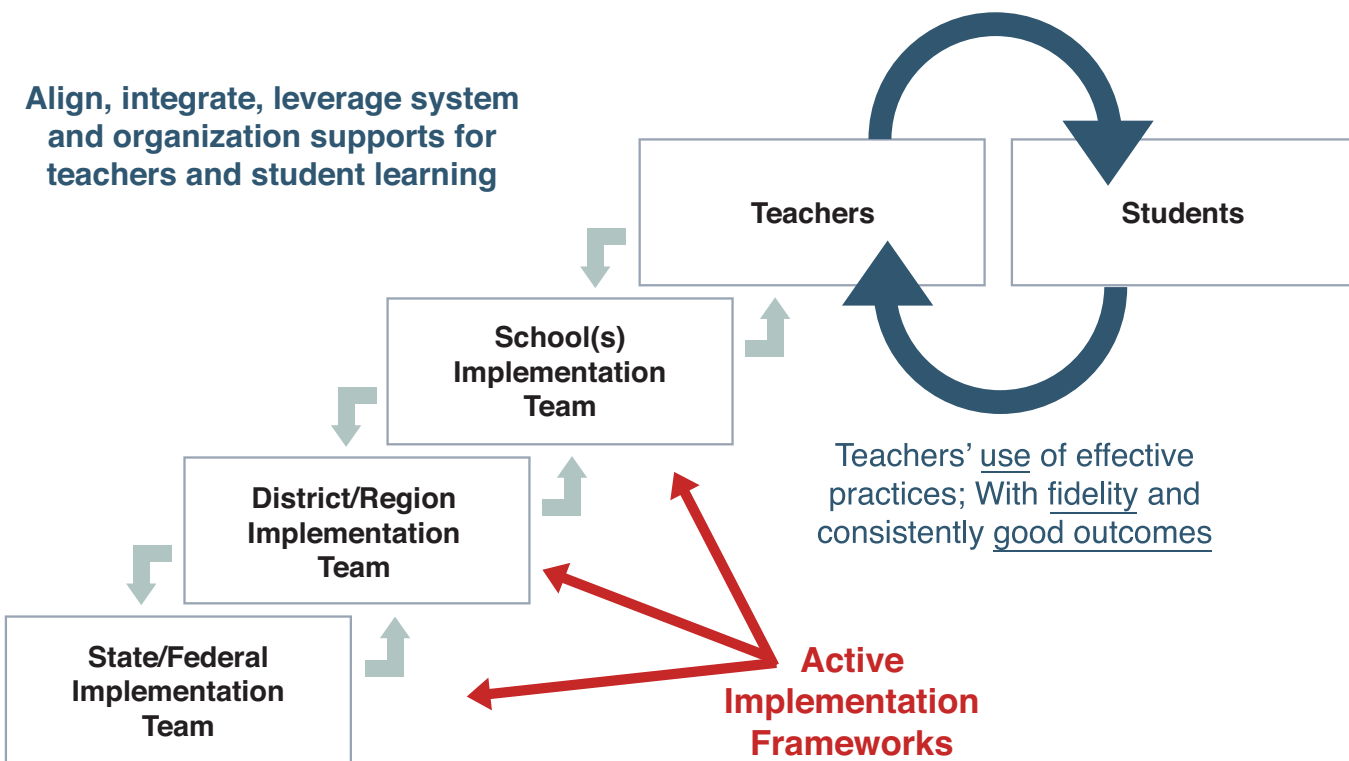
Because the purpose of *The Four Domains for Rapid School Improvement: A Systems Framework* was to outline the domains (not to operationalize each of the recommended practices), to realize the intended benefits, groups will need to define each turnaround practice in line with the usable practice criteria. Implementation Teams in regions and districts possess the capacity and skills to do this work (*know-how*).

Implementation Teams

Implementation Teams consist of 3 to 5 members with expertise in all aspects of the Active Implementation Frameworks. They are *the* who in Effective Implementation Methods as they engage in Talent Development. They make frequent use of data to continually assess and improve both their functioning as a team and their outcomes for teachers and students. Implementation Teams use the implementation practices necessary to accomplish the turnaround domains. Without effective expertise in implementation practices to support the expertise of educators using evidence-based practices, educators will continue “tinkering to utopia” (Tyack & Cuban, 1995) and education will remain “mired in mediocrity” (National Commission on Excellence in Education, 1983; U.S. Department of Education Institute of Education Sciences, 2010). Skilled Implementation Teams are essential to support quality education for all students.

FIGURE 2
CASCADING SYSTEM OF SUPPORTS

A cascading system of implementation supports for systemic change and improvement in all schools, including turnaround schools. Used with permission from Fixsen, Ward, Ryan Jackson, and Cusumano (2015)



Implementation Teams

“For every increment of performance I demand from you, I have an equal responsibility to provide you with the capacity to meet that expectation.”

Together they change longstanding ways of work and create an Enabling Context where staff get what they need, when they need it, through the application of Turnaround Leadership that builds capacity for faculty and staff to work together and engage in a Culture Shift toward shared responsibility.

States that engage in the full and effective use of the AIF make a significant shift in culture. They communicate and emphasize that the onus for improving education will no longer be on the teacher. Rather, Implementation Teams are accountable for providing the supports (e.g. training, coaching, use of data) teachers require to effectively use a practice that benefits each and every student in their classroom. Over time it becomes clear to teachers and school staff that their voices matter, as districts, regions, and the state begin to respond to their needs (e.g., provide initial and on-going training based on the core components of the Usable Practice).



The work of implementation requires expertise in implementation and scaling practice and science. As Elmore (2002, p. 5) stated, “For every increment of performance I demand from you, I have an equal responsibility to provide you with the capacity to meet that expectation.” With this end in mind, implementation capacity in education systems is operationalized as a cascading system of supports for teachers and staff uses of practices supported by evidence. **See figure 2.** Implementation Teams at the state, region, district and/or school level provide or arrange for training and coaching assuring administrative support for teachers use of effective practices and those teams are supported by state and federal Implementation Teams. When teachers or an implementation team encounters a barrier that they cannot solve, the barrier is reported up the cascading system to the team with the resources and authority to solve the barrier with viable solutions. Hence, support cascades down and barriers are reported back up creating a practice to policy and policy to practice feedback loop (Fixsen et al., 2013).

As noted in Figure 1, each Implementation Team’s use of the Active Implementation Frameworks makes possible the cascading system of supports. The Active Implementation Frameworks create a common language and shared sets of knowledge, skills, and abilities that the work of each Implementation Team embodies at each level—a process is consistent with the Talent Development domain. Turnaround requires policies and procedures to identify, select, place, and retrain competent and committed personnel at every level and in every position as districts receive support to establish and monitor milestones, as well as to include information about a school’s data-supported progress. In this way, existing resources become aligned, integrated, and leveraged to produce greatly improved student outcomes from one cohort of students to the next, even as teachers, staff, and leaders come and go.² **Turnaround depends on this Culture Shift through shared accountability and acting on what is learned through** common implementation and scaling methods. State and regional entities who engage in use of the Active Implementation Frameworks come to understand that effective implementation is the missing ingredient for supporting effective instruction in schools.

² Analogous existing infrastructures in education provide capacity to support the use of common digital technologies and common financial accounting methods that fit the unique needs of individual schools.

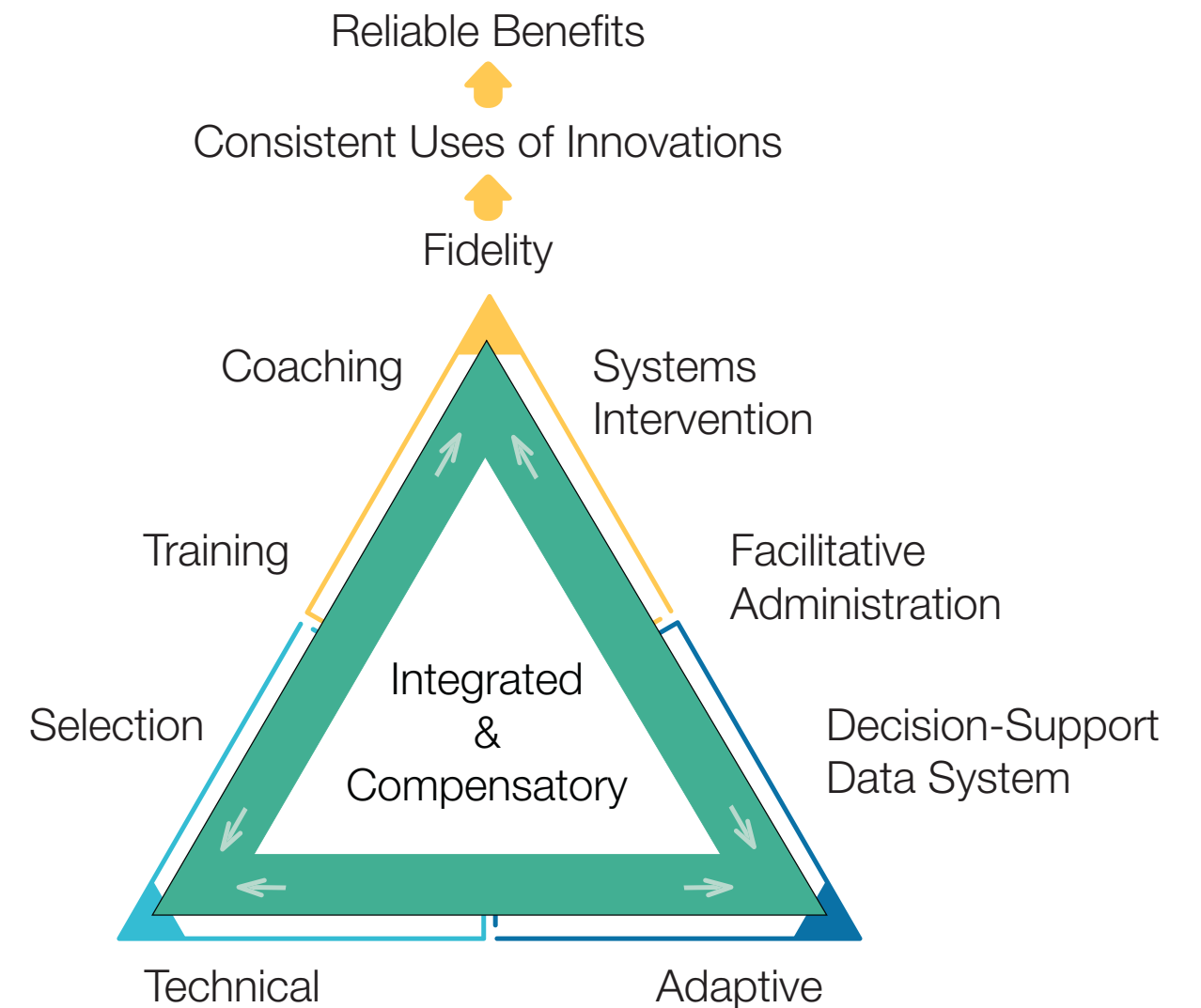


As noted in the *Four Domains*, any change in education of students requires changes in teachers, principals, staff members, managers, vendors, and so on. Meeting the usable practice criteria help to identify the individuals and teams (practitioners) that need to learn and perform new ways of work. For example, the recommendations are to have a **workforce** that is identified, selected, placed, retained, and sustained; turnaround competencies are to be identified and used to select and develop turnaround teachers, model teachers, and leaders; educators are directed to utilize and hone their instructional and transformational leadership competencies. **WHO** will do this work and **HOW** will the work be done? How will turnaround competencies be identified? Who will use that knowledge to select and develop teachers? How will selection and professional development be different from current practices? Who will develop new interview and training methods and content? How will the human resources staff learn to do these new ways of work routinely? Effective Implementation Methods or *Turnaround Leaders* focus on *Talent Development* or changing adult behavior as they focus on the **HOW** to build capacity for personnel at every level of the system.

Changing adult behavior is the work of implementation. The implementation drivers summarize the core components of the factors to consider when attempting to use any practice in order to realize intended outcomes by teams at every level (see figure 3). The **competency drivers** are methods that work together to establish new ways of work. Competency drivers and the new ways of work do not sustain without having the **organization drivers** in place to ensure that new ways of work become standard ways of work (Blase, Fixsen, & Phillips, 1984). And, as has been pointed out in change literature for decades, none of this happens without the **leadership** in place to initiate and manage change and continually improve over time.

FIGURE 3
IMPLEMENTATION DRIVERS

Implementation Drivers that support the full and effective use of practices. Used with permission from Fixsen and Blase (2008).



Implementation Drivers

These ideas are not new to education (Darling-Hammond & McLaughlin, 1995; T. Green, 1980; Hall & Hord, 1987). However, today we possess a set of best practices that defines each factor (Fixsen, Blase, Naoom, et al., 2015; <http://nirn.fpg.unc.edu/learnimplementation/measures>), and we know all of these factors must be integrated to be effective. When all the drivers function as intended, staff routinely meet fidelity standards and reliably produce vastly improved outcomes year after year in turnaround schools and other schools in each district.

The next sections provide a brief overview and rationale for each set of implementation drivers.

COMPETENCY DRIVERS:

Staff selection, training, coaching, and fidelity assessment are essential for establishing new competencies (talent development) for existing and new staff. The goal is to have each practitioner (e.g. teacher, principal, staff) meet standards for high-fidelity use of the Instructional Transformation domain. This is where Implementation Teams begin to do their work. If the competency drivers do not consistently produce high fidelity uses of the turnaround practice, then the rest of the implementation drivers, Active Implementation Frameworks, exhortations for improvement from Turnaround Leadership, new incentives for improved performance, and so on will not be much use (Fixsen et al., 2005). Thus, experienced Implementation Teams initially focus on selection, training, coaching, and fidelity assessment until they “get it right” (as outlined below) and routinely have teachers, principals, and staff (practitioners) engaged in high-fidelity use of turnaround skills.

The purposeful focus on developing the Competency Drivers is critical and requires an intentional focus in the first few years of engaging in Active Implementation capacity development. Workgroups representative of a state’s stakeholders identify what is in place in the state (selection, training, and coaching systems) and what is needed to effectively use the identified turnaround practice in schools. **They solicit feedback** from regions, districts, and schools as they develop the training and coaching systems so everyone can see themselves in the work as they develop **school specific competency models**. Monthly communication to stakeholders regarding progress is key to the development of buy-in for use of the training and coaching systems in schools. This new way of work is a **Culture Shift as faculty and staff work together around common goals, engendering a culture of mutual respect, shared responsibility, and focused attention on student learning**. The onus for improved outcomes no longer lies solely on the teacher; rather the onus is on the system and Implementation Teams who take responsibility for the use of effective selection, training, and coaching systems in a district’s classrooms.

Implementation Drivers



STAFF SELECTION is the beginning point for establishing the knowledge, skills, and abilities to carry out evidence-based practices with benefits to students. Beyond academic qualifications or experience factors, what essential skills are required? Certain practitioner (teacher, principal, staff) characteristics critical to the use of an evidence-based program are difficult to teach in training sessions and therefore must be part of the selection criteria (e.g. basic professional skills, basic social skills, common sense, empathy, good judgment, knowledge of the field, personal ethics, sense of social justice, willingness to intervene, willingness to learn).

Implementation of effective programs on a useful scale requires:

- Specification of required skills and abilities within the pool of candidates,
- Methods for recruiting likely candidates that possess these skills and abilities,
- Protocols for interviewing candidates, and
- Criteria for selecting practitioners with those skills and abilities.

Even when new practices are being attempted in a school or district with a well-established staff group, the new way of work can be described and volunteers can be recruited and interviewed in order to select the first practitioners to make use of a practice with evidence of effectiveness. As workgroups develop the training and coaching systems of support they identify and clearly define the knowledge, skills and dispositions required of teachers, trainers, coaches, and turnaround leaders. This leads to the development of clear selection criteria and interview protocols to select the staff who will use and support the use of the turnaround practice in schools. Talent Development requires the creation of a model for selection and placement.

Implementation Drivers



STAFF TRAINING is important because turnaround practices supported by evidence represent new ways of providing instruction and support. Training on use of a specific practice helps practitioners (and others) in an organization learn when, where, how, and with whom to use (and not to use) new approaches and new skills.

Staff training is an efficient way to:

- Provide knowledge related to the history, theory, philosophy, and values of the program,
- Introduce the components of and rationales for key practices, and
- Provide opportunities to practice new skills to criterion and receive feedback in a safe and supportive training environment.

Effective training includes multiple demonstrations of practice-related skills, behavior rehearsal of skills to criterion, and pre-post tests of knowledge and skill (Joyce & Showers, 2002; Stormont, Reinke, Newcomer, Marchese, & Lewis, 2015). Coaches use pre-post results to continually support newly trained practitioners. In this way, the coach will learn areas of strength and areas that need improvement early in the coaching relationship. Schools and districts make use of these data to continue to improve training methods.

Once a state or LEA has developed a Usable Practice the core components are used by a training team or trainer to design training content and develop training checklists and measures. Checklists identify what states, regions, districts, and schools expect of trainers before a training (e.g., agendas, invitations to participants including required district and school administrators, equipment, and materials), during the training (e.g., behavioral rehearsals, use of adult learning principles), and after the training (e.g., pre-post assessment of skills developed and ability to apply, participant evaluation). This intentional process informs retraining and follow-up coaching support required and identified through pre-post data, event evaluations, and needs assessments completed by practitioners. Instructional Transformation is purposeful to refresh, update, and bolster teacher practice.

Implementation Drivers



STAFF COACHING is essential. Most skills that successful practitioners need can be assessed during selection and introduced in training, but practitioners really learn them on the job with the help of a coach. An effective coach provides “craft” information along with advice, encouragement, and opportunities to (re)practice and use skills specific to the practice (e.g. engagement, instruction, good judgment). The full and effective use of human service practices requires behavior change at the practitioner, supervisory, and administrative support levels. Training and coaching are the principal implementation methods that bring about behavior change for carefully selected staff in the beginning stages of implementation and throughout the life of evidence-based practices and programs. Schools and districts can make use of teacher fidelity data to continue to improve coaching methods.

States are encouraged to develop coaching as a “Usable Practice” with a representative team of shareholders who have the knowledge, skills, and behaviors required to develop a common philosophy of coaching that clearly defines and operationalizes what coaches will do. A teacher survey often can accomplish fidelity of coaching by assessing whether teachers in schools are receiving the

core components of the defined approach to coaching. States then establish training processes to assure the availability of skillful coaches and to prepare district and school administrators for their roles in supporting coaches. Instructional Transformation is dependent on targeted staffing improvements that ensure time and capacity for Talent Development. Often this requires a Culture Shift led by Turnaround Leadership to support the development of the structures and opportunities for faculty and staff to work together around common goals to engage in the deep system change required to install, use, and sustain coaching systems of support.

Implementation Drivers



FIDELITY measures are designed to assess the use and outcomes of the skills that are reflected in the selection criteria, taught in training, and reinforced and expanded in coaching processes. Fidelity assessments of practitioner performance are most useful as feedback to key implementation staff (interviewers, trainers, coaches, program managers) regarding the progress of implementation efforts and the usefulness of selection, training, and coaching methods. For example, organizations consistently monitor current performance assessments in search of common strengths and areas that need improvement, then make adjustments in how selection, training, and coaching are conducted to help strengthen skills related to that area. The organization remains accountable for assuring that current and future practitioners will achieve high levels of effective performance when working with children, families, and others. Schools and districts make use of data to continue to improve fidelity assessment methods.

State Turnaround Leaders provide districts with tools for tracking, analyzing, and sharing data. They ensure that districts and schools have the resources (an easy to use data system and time) to make frequent use of fidelity assessment methods (for the practice and for coaching).

Equally important is consistent and frequent communication to teachers and coaches that fidelity data are used to measure the strength of the system to support effective teacher instruction and coaching practices. Therefore, careful attention needs to be given to how the fidelity measure will be introduced to schools and teachers. It is imperative for teachers to understand fidelity is not teacher evaluation and to understand the process for how fidelity data will be collected and used. For example, who will collect the data and how often, how will teachers receive feedback following the walkthroughs, and how will the schools respond to the data (e.g., follow-up training and coaching)?

When districts follow a similar process across schools, and use the data to create a collective commitment to accountability, teachers say, “You really meant it when you said this was not about us, but about the system!”

Implementation Drivers

ORGANIZATION DRIVERS:

The organization drivers focus on the school or district as an organization that is accountable for supporting practitioners effective use of practices. Sustained and improved high-fidelity use of practices by teachers as well as high-fidelity use of the competency drivers by Implementation Team members depends on the organization drivers: decision support data systems, facilitative administration, and systems intervention.

Full use of the Organization Drivers in schools rely on Turnaround Leadership and a Culture Shift. District, school staff, and teachers report the importance of administrators being at the monthly implementation team meetings. Thoughtful conversations ensue in the first meetings as schools clearly identify what they do and do not have the authority, resources, and capacity to influence. When they have the authority, they develop action plans that are monitored for completion. And when a problem arises that is not within their sphere of influence, the District Implementation Team member is able to report the barrier to district, regional, or state leadership for problem solving. Having a district leader in attendance at every school-level Building Implementation Team meeting communicates the value of and commitment to the process.

DECISION SUPPORT DATA SYSTEMS are sources of information used to help staff members make good decisions internal to a school and district.

These organizations make use of a variety of measures to:

- assess key aspects of the overall performance of the organization,
- provide data to support decision making, and
- assure continuing high-fidelity use of the practices that evidence supports and that

At a minimum, all modern organizations have a financial data collection and reporting system that regularly is monitored internally and externally (e.g. through employment of professional financial managers and clerks in the organization, careful attention from the governing board, and annual audits by external experts). Many organizations also have data collection and reporting systems for their management processes and outcomes.

Decision support data systems focus on the adult behavior that is related to producing student outcomes. Decision support data systems are an important part of continuous quality improvement for practices, implementation supports, and organization functioning (e.g. used as the “study” part of the never-ending Plan-Do-Study-Act Improvement Cycle). Organizations establish and evolve their data systems so information is immediately accessible and useful to practitioners, trainers, coaches, and managers for short-term and long-term planning and improvement at classroom and organizational levels. If the feedback loops (e.g. fidelity assessment data) indicate needed changes, then the organization adjusts aspects of the system to improve effectiveness and efficiency.

As states begin to invest time and resources to develop and install the Competency Drivers, it becomes clear that teams will need access to an easy-to-use data system. Multiple forms of data (e.g., capacity, training, coaching, fidelity, student progress) inform goal-directed milestones, including markers for implementation, changes in professional practice, and interim and annual student assessment. As decision-makers expand and rely on data sources, it also becomes clear that teams need training in how to collect data accurately and reliably. In addition, training on the use of data in a problem-solving model helps them develop action items, timelines, and responsibilities aligned with their turnaround plan. Some states already have a data system that can be supplemented and adapted, while other states will have to rely on the human capital of staff (and free data management tools) to develop a system that produces clear pictures of data that are easy to use once staff receive training in the use of the (data) practices.

Implementation Drivers



FACILITATIVE ADMINISTRATION provides leadership and makes use of a range of data inputs to inform decision-making, support the overall implementation processes, and keep staff organized and focused on the desired practice outcomes. In an organization with facilitative administrators, they give careful attention to policies, procedures, structures, culture, and climate to assure alignment of these aspects of an organization with the needs of practitioners and benefits to students.

Teacher and staff interactions with students and families are the keys to any successful use of a practice. Administrators and staff in schools and districts make full use of available resources to assure that practitioners have the time, skills, and supports they need to perform at a high level of effectiveness with every student and family, even as teachers, coaches, managers, and others come and go year after year. With implementation supports from selection, training, coaching, and fidelity assessments, administrators continue to use available data and experience to find more and better ways to support practitioners. Turnaround leaders focus on Talent Development to help districts establish and monitor milestones.

Implementation Drivers

SYSTEMS INTERVENTIONS are strategies for leaders and staff within an organization to work with external systems to ensure the availability of the financial, organizational, and human resources required to support the work of the practitioners. Alignment of these external systems to specifically support the work of practitioners is an important aspect of systems interventions. System interventions take on issues that impact the ability to provide effective services within organizations. Leaders and staff design system interventions to help create a generally supportive context for providing, maintaining, and improving effective practices over the years.

The critical role of *leadership* at organization and system levels is widely acknowledged (Rhim, Kowal, Hassel, & Hassel, 2007). Studies have refined the view of leaders and have found that “leadership” is not a person but different people engaging in different kinds of leadership behavior as needed to establish effective programs and sustain them as circumstances change over time. For example, leadership needs change as implementation progresses: “adaptive leadership” styles facilitate “champion change” in the beginning; more technical leadership styles help to manage the continuing implementation supports (e.g. selection interviews, performance assessments, system interventions) for effective programs over the long run. In the midst of continual social and economic changes that impact

human services, the need for adaptive leadership never goes away. Sometimes the same people provide both kinds of leadership. In other cases, organizations more widely distribute leadership responsibilities within.

When the implementation infrastructure is in place and effectively functioning, implementation supports began to influence teacher practice and knowledge of what is in place, and what is not in place becomes apparent. When a problem is not within the school’s sphere of influence, the school implementation team must “lift” the problem up to the team with the authority, resources, and capacity to break down the barrier. Therefore, a linked teaming structure ensures that a barrier at the teacher or school level can be reported to the team who has the resources and authority to solve the problem. Continued buy-in from the school and its teachers depends on a quick response. After all, the promise was to support what was needed to improve school performance and student outcomes. As states build their capacity to use the Active Implementation Frameworks at every level of the system, the trial and learning process reveal multiple challenges. Some challenges take time to solve; they are adaptive in nature and require a level of readiness within the organization. Other challenges are easier to solve given the shared vision, common philosophy, and support from Turnaround Leadership.

Implementation Stages

In the Active Implementation Frameworks, the stages of implementation are exploration, installation, initial implementation, and full implementation. The stages appear linear but are iterative and recursive in practice. Full implementation is difficult to achieve and sustain. A district that has achieved full implementation in every school for several years may find itself back in exploration and installation stages after dramatic changes in leadership or funding. These changes can be healthy (in the long run) if Implementation Teams are in place to immediately engage leaders in adaptive strategies to find new ways to sustain and improve education for students in spite of setbacks. For the turnaround domains, it is important to assess readiness and create readiness where needed. Implementation Teams adjust their work with districts and schools based on the stage of development of each.

The **EXPLORATION STAGE** is a critical first step in practice and system change, yet is often overlooked in the rush to get started. In a “pay now or pay later” situation it pays to attend to exploration stage activities to assure readiness for using practices supported by evidence and establishing the implementation supports needed to routinely produce high fidelity and reliable outcomes for students.

In the exploration stage a skilled Implementation Team convenes meetings of relevant stakeholders and potential practitioners to discuss needs, fit, and resources such as:

- **Needs of students; how well the program or practice might meet high-priority needs.**
- **Evidence indicating the expected outcomes when the program or practices operate with high fidelity.**
- **Fit with current initiatives, priorities, structures and supports, and parent/community values.**
- **Resource availability for training and coaching, staffing, technology supports, curricula, data systems and administration.**
- **Readiness to support the use of the program, including expert content assistance available, exemplars available for observation, and how well the program is operationalized**
- **Capacity to use the practice as intended and to sustain and improve implementation supports over time.**

Requirements, mandates, and orders to participate, as well as a lack of planning time for exploration, are counterproductive and result in a tremendous waste of resources and opportunities for improvement. Taking a few months to complete the exploration stage discussions and decision making (yes, let’s do it; no, we choose not to participate) resulted in 12 times greater success at 1/7th the cost in one of the few studies of exploration (Romney, Israel, & Zlatevski, 2014). In a broader study of implementation stages, Saldana, Chamberlain, Wang, and Brown (2012) found that completion of exploration stage tasks was related to significantly greater success in later years. Fifty-one percent of 53 participating organizations completed exploration activities in about 120 days and subsequently initiated intended services; 49% of the organizations did not complete exploration activities and never provided the intended services. Thus, if an Implementation Team had been available, 49% of the organizations needed assistance to create readiness so they too could be successful.

For the Active Implementation Frameworks, the result of exploration activities is a mutual decision to proceed:

the organization is well informed about the practice, implementation support requirements, and the extent of the involvement of staff in changing practices and organization supports; the Implementation Team is well informed about the commitment of leadership and the ability of the organization to make the required changes. With mutual selection, the process of using evidence to support turnaround efforts in low performing schools and districts is purposeful from the beginning.

Implementation Stages

As the active implementation work progresses many states adopt the mantra:

“Exploration – pay now or pay later.” Knowing that exploration is often the most underutilized stage, teams learn to take care to complete exploration activities (e.g., selection criteria for team members, Terms of Reference to clearly define vision, roles and responsibilities). States who are steadfast in their adherence to the use of stage-based activities pay careful attention to the readiness of teams as they transition from one stage to the next. Yet, they often revisit previous stages. As they develop expertise in the use of the Active Implementation Frameworks, they will often say, **“we missed this so we need to go back – we can pay now or pay later.”** Trial and learning becomes part of the new culture as teams understand the nonlinear stage based approach to developing and sustaining an implementation infrastructure.

“We missed this so we need to go back - we can pay now or later.”

The work is never finished. As team members come and go and the political context shifts, teams revisit previous stages.

Implementation Stages

INSTALLATION STAGE activities usually begin as exploration progresses and resource needs emerge. The Implementation Team and school and district leaders and staff prepare for initiating the practice. Intensive activities during the installation stage include: preparation of training, coaching, and fidelity assessment materials and staff; recruiting the first cohort of teachers and staff (practitioners); meetings with parents and key stakeholders; adjustments in school schedules and routines; and more. Implementation Teams and workgroups complete exploration and installation stage activities to fully install an implementation infrastructure for use of a turnaround practice.

The process requires a Culture Shift to shared accountability, follow through, and system-wide support for change in classroom instruction.

The initial implementation stage begins when the first cohort of teachers and staff complete training and begin using the practice in their interactions with students in the classroom and school. At this point, coaching is more frequent and intensive and the Implementation Team engages with school leaders and staff in rapid-cycle problem solving to support changes in school routines. The goal is to help assure high-fidelity use of the practice by every teacher and staff person.

Initial implementation is the point at which many attempts to use new practices fall apart. Everything is new to everyone all at the same time. As noted previously, without the help of an expert Implementation Team only 14% of the attempts succeed after 17 years. Coaches have to learn to coach while attempting to support teachers first attempts to use the practice; early fidelity data point to multiple problems in the use of the practice; planned-for changes in school schedules and meetings are slow to materialize—there are many reasons to stop and go back to comfortable old ways of teaching, supporting, and leading. With the help of an expert Implementation Team, teachers and staff will engage in a process of quickly detecting and correcting errors, as well as developing implementation capacity and a culture of innovation in the process.

Implementation Stages



It takes two to four years to move from the start of exploration to **full implementation** (Fixsen et al., 2005). That time frame was for the very few attempts that ever reached full implementation, and most of those had the support of an expert Implementation Team. The minimum criterion for full implementation is having at least 50% of all the intended practitioners in an organization using a practice with fidelity at the same time. *(Thus, if there are 40 teachers in a school, at least 20 would meet fidelity criteria in the same month. If there are 400 teachers in a district, 200 would need to meet fidelity criteria in the same month.)* The 50% minimum criterion may seem low, but it is difficult to achieve in real-world settings. All the implementation drivers must be in place and working well individually and together to achieve and maintain the 50% minimum as staff turnover occurs. Eventually, with mature and experienced Implementation Teams working within organizations and systems that have changed to support practices and implementation, 80% of the teachers may satisfy fidelity criteria in any given month.

The stages of implementation are encouraging news for education. It now is possible to support exploration activities and installation activities that vastly improve the likelihood of success. With usable practices in the hands of teachers supported by expert providers of the implementation drivers, student learning will be at a high level and will be improving each year. Because changes in the environment can cause setbacks, Implementation Teams and leaders can recognize the impact on teachers and staff and engage in stage-based activities to re-start the process and regain lost functionality. Learned helplessness will be a thing of the past.

Improvement Cycles

The improvement cycles have been mentioned in previous sections. They are an integral part of practices, implementation, and school/district organizations. While Plan-Do-Study-Act-Cycles (PDSA-C) seem simple, they require disciplined effort to do in practice (Leis & Shojania, 2017; Taylor et al., 2014). However, the payoff for continual improvement in know-what and know-how is worth the effort and results in noticeable benefits for teachers and students.

PLAN:

What do you intend to do? This might be an approach to classroom instruction, or coaching, or increasing the value of staff meetings, or anything else related to education. The plan is based on the best available evidence (*try what has worked for others*) and attempts to meet the usable practice criteria (*description, core components, operational steps, assess fidelity*).

DO:

Attempt to *do* the plan with a small number (*3 or so*) of intended practitioners (*teachers, principals, coaches*). Have a way to assess whether the Plan was done as intended (*fidelity*).

STUDY:

What happened? Was the Plan done as intended (*with fidelity*) or were there barriers of some kind? Was the intended result achieved? Were the measures of fidelity and outcome useful and complete? Do the measures need to change? What can be done to improve outcomes?

ACT:

The participants meet to decide what went right and what went wrong and re-think the process and the assessments. *The result is a new Plan.*

CYCLE:

Another small group of participants uses the new plan. The PDSA-C process is repeated until it produces substantially improved outcomes, and measures are useful and complete.



Improvement Cycles

The result of PDSA-C is improved know-what, know-how, and assessments of each that are practical for use in education settings with existing staff. School culture and climate are topics of concern in turnaround schools and for schools in general. PDSA-C is a way to empower educators and have them generate practices that can be tried out to see if they work or not. This moves away from helplessness and trying yet one more thing and moves toward hopefulness and a reliance on data and examined experience to produce actual improvements for teachers and students.

Instead of one pilot test with 20 participants, PDSA-C testing might employ 5 participants in each of 4 PDSA-C. A pilot offers one chance to learn and no opportunity to test the lessons. Use of the improvement cycles provides multiple opportunities to learn and offers opportunities to put the lessons into practice, test them, continue to make improvements, and replicate successes from one cycle to the next. Improvement cycles are mission driven—the cycles continue until they solve the problem. This is possible because of the small size of each group in each cycle and the intensity of the “Doing” and “Studying” that is part of each PDSA-C.

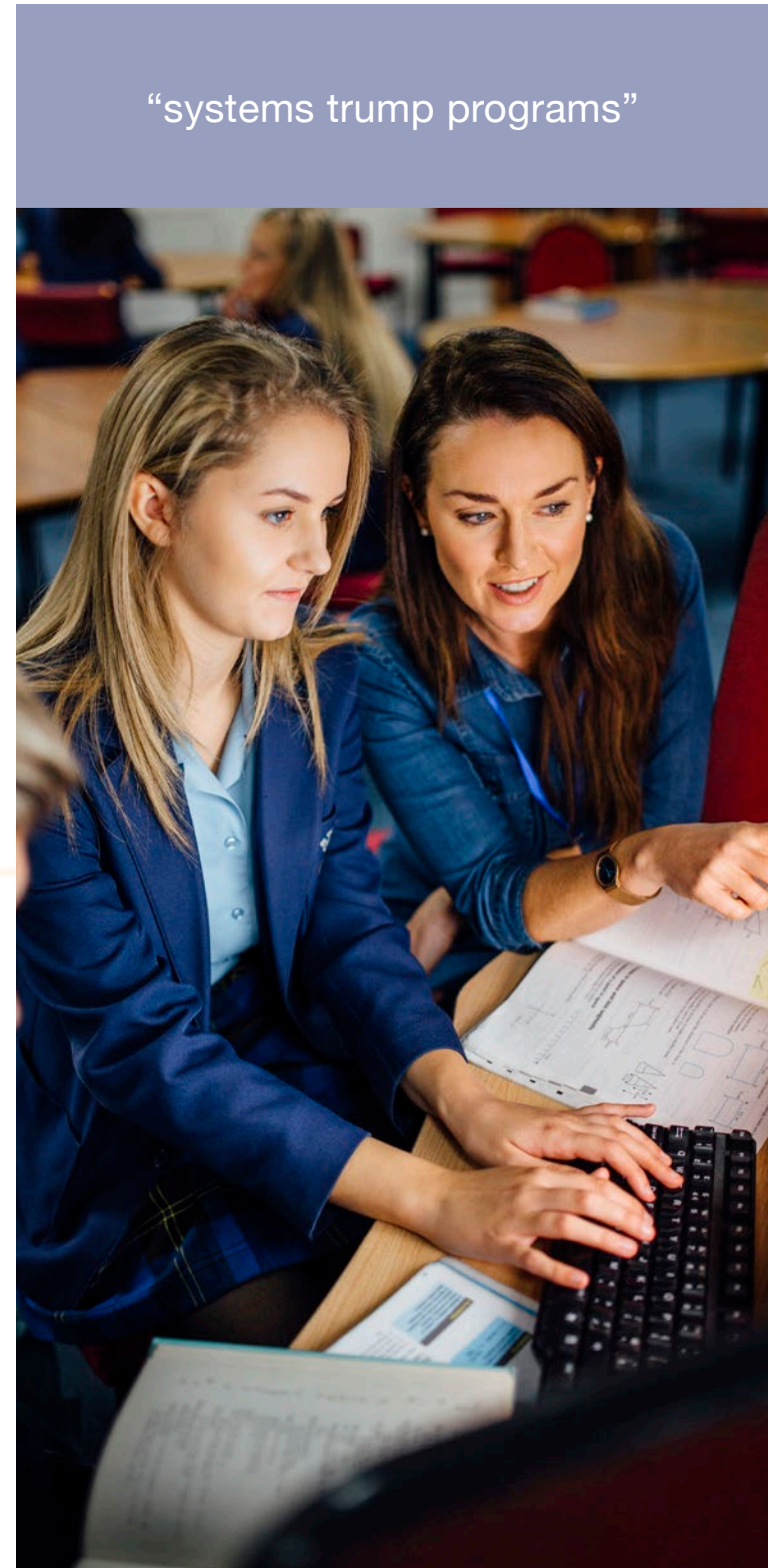
Because Turnaround Leaders model the behaviors they want to see in others, as leaders in continuous improvement they are dedicated to the on-going iterative process of using PDSA-C. Throughout the exploration and installation process Implementation Teams at the state, region, district, and school become proficient in the use of rapid cycle problem solving. For example, they plan for a training (e.g., use a training effectiveness checklist) and then they do the plan or conduct the training (e.g., follow the agenda, use adult learning principles, and provide multiple opportunities for behavioral practice). Then, they study the effectiveness of the plan (e.g., analyze pre-post training assessments of knowledge and skill learning; fidelity walkthrough data), and act to improve the effectiveness of their next training (e.g., modify content, provide training for trainers, modify behavior rehearsals). Then they repeat the cycle again and again. Building Implementation Teams also use rapid cycle problem solving at monthly data team meetings. They use data to identify a problem, put a plan in place, and identify who will do what by when. Then, the team commits to doing the plan. At the next team meeting (within four weeks) the team studies the data to see if the plan was completed by team members assigned to specific tasks. They identify, based on data and evidence, if the problem was solved by team members, and if not, they ask why not, and use capacity, fidelity, and implementation data to develop a new solution and associated plan—they act on the data, develop the next action plan, and repeat the PDSA cycle until the problem is solved. The iterative nature of using data requires a Culture Shift where there is dedicated time for this reflective and collaborative process.

Improvement Cycles

After years of experience trying to improve human service outcomes, Patrick McCarthy (CEO, Annie E. Casey Foundation) concluded that *“systems trump programs.”* For turnaround work in education, it is not sufficient to change a school. The district, region, and state organizations and systems need to change to support the use of ***The Four Domains for Rapid School Improvement*** for the current group of low-performing schools, sustain those changes for future generations of students in those schools, and be prepared to turnaround the schools that will be in the bottom 5-20% next year and the year after.

Implementation teams establish communication loops to ensure they are communicating relevant information to one another as needed (daily, weekly, monthly) from practice-level staff to implementation teams to executive leadership. In this way, impediments and gaps in support at the classroom and school level can be “lifted up” to those who can solve these bigger problems that stand in the way of turnaround for all schools in the state. These practice-policy communication loops (Fixsen et al., 2013; Sterman, 2006; Svensson, Tomson, & Rindzeviciute, 2017) are the basis for changing current policies, procedures, funding strategies, structures, roles, and functions to more precisely and purposefully focus on improving student outcomes and closing achievement gaps. Systemic change, based on supporting quality education, is the result of removing barriers and shoring up facilitators one at a time over several years. As one state director said, *“while we are removing the silos we still have to store the grain”* —a recognition that change occurs in the context of an existing education system that continues to function as it always has even while a new, more supportive system is being created.

“While we are removing the silos we still have to store grain.”



“systems trump programs”

Turnaround Leadership facilitates rapid, significant improvement for low performing schools by creating an Enabling Context where *“policies, structures, resources and personnel are in place to fuse community cohesion and academic press.”* Willingness to engage in practice-policy communication may be dependent upon a team's previous experience in seeking support; whether their request was received with respect and resolved, or whether the interaction was dismissed and viewed as unimportant. Seeing is believing. A Culture Shift occurs when State Turnaround Leaders become highly visible at regional and district meetings. During a Regional Team meeting, with state leadership present, a team member shared, *“I see how this works and that we don't just report barriers to the state but we have an obligation to offer solutions.”* Turnaround leadership is realized when the state education agency, regions, districts, and schools function collectively as an integrated system, connecting the state leaders to local contexts. The work is complex and the commitment of teams must be unwavering as they develop fluency to use the Active Implementation Frameworks and imagine a better future as they turnaround the lowest performing schools.

“I see how this works and that we don't just report barriers to the state but we have an obligation to offer solutions.”

Improvement Cycles

“policies, structures, resources and personnel are in place to fuse community cohesion and academic press”

The development of implementation and scaling capacity in a state education system may seem like a lot, but it is a necessary and integral resource in education systems. It ensures that teachers and school staff get what they need when they need it to use practices effectively and produce positive outcomes for students. The insertion of new implementation knowledge and skills does not require additional resources. Current resources devoted to various improvement initiatives are repurposed and current staff members are re-skilled to become members of expert Implementation Teams to support the four domains of turnaround activity and to assure their full and effective use in practice.

To turnaround low-performing schools and districts, state systems need to change from the status quo to a system that is aligned and integrated so that current resources can be leveraged to improve education on purpose. The cascading system of supports in the form of linked Implementation Teams provides the basis for aligning (defragmenting) and integrating (desilking) complex education systems. Implementation science provides a new and effective resource that, with effort, can help systems change and continue to improve to the benefit of all students, including those in the bottom quintile of schools each year.

The aim of this paper was to describe how to use the Four Domains for Rapid School Improvement to strengthen a state's education system so the system bolsters rather than hinders school improvement efforts through routinized practices where systemic improvement becomes "the way we do business" at the state, (regional) district, and school levels (CST, 2017). If effective practices are implemented in a system that enables school improvement efforts, then systematic improvements can become the standard way of work in a high functioning education system.



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