Tools and Techniques That Support Implementation

Three concepts and their measuring processes have been identified through long-term research and continuing practice. All three have been abundantly used in research and evaluation studies—and for their practical application in facilitating the implementation of change successfully. They are highly recommended for application to the six strategies and for guiding the implementer on his or her journey of change. The IC map has been noted a number of times in this chapter, and we discuss this construct and its tool as the first of the three concepts.

Innovation Configurations

As staff members were in the field verifying the theory and mea-sures of earlier work on Levels of Use (LoU), almost immediately apparent was the need for the construct of Innovation Configurations (Hord, Stiegelbauer, Hall, & George, 2006).

A Challenging Problem. It is not difficult to recall, or imagine, this situation in a school that was focused on implementing a new math-ematics curriculum.

In a third-grade classroom of an elementary school, the change researcher asked the teacher to describe the new mathematics cur-riculum that the school had adopted.

"Well," she said, "I wish I could really know what the curriculum is. I am confused about it, especially when chatting about it with my teacher neighbors on the third-grade wing. We would really like to be doing it *right,* but we don't know what right really is. We are all working with it in very different ways."

Another third-grade teacher, in response to the researcher's query, said, "I have a set of objectives sent by the district that guides me in my teaching math. I use the district-adopted math textbook and the district's supplemental kit, provided because all the objectives aren't included in the textbook. When I have completed a unit and its objective, I administer the district's assessment. When I receive the scores on that test, I move those students who passed on to the next objective, but for those who didn't meet the passing score, I reteach those students with alternate materials that I have created. Is that what you are interested in hearing about?"

In a third classroom, the teacher reported that she had been teaching third-grade math for a dozen years and knew what students needed to know: "I have a list of the objectives for the year. Would you like to see that? And I have activities and worksheets that I have accumulated over the years. I use a test that I have designed to ascertain whether students have achieved the objectives. Then we move on to the next unit and its objective. It would be fine if you want to visit the students in my classroom."

A fourth classroom teacher on the third grade wing described his math sessions: "I follow the textbook that was selected because it most closely follows the math curriculum that the district math coordinator adopted for us. Each chapter focuses on an objective, with a large number of practice problems for the students. I use the end-of-chapter tests to check students' accomplishments, then move to the next chapter. It works very efficiently, I think."

What to do? There were so many different iterations of the presumably same curricular program. And this school's circumstances were not new to the researchers, for they were hearing similar messages from a wide array of schools and districts. What appeared to be happening was that the new program was changing some teachers' practices, while some of the teachers were changing the program's practices. Through reflection, consideration, much discussion, and sometimes rather energetic debate among the researchers, these ruminations gave birth to the construct named Innovation Configurations.

Despite the provision of materials and professional development to teachers, principals, and others expected to implement new practices, these people very frequently are not clear about what to do. This results in a big gap between what is expected in classrooms and what is actually found there. Regardless of the origin of the change (local teachers or administrators, central office supervisors, regional

agencies, state policymakers, or national experts), providing an explicit picture of what high quality-implementation looks like is imperative. To portray this vision of the innovation, the research team created the Innovation Configuration map. This instrument captures in writing the mental image of successful implementation of the innovation in action in the classroom or whatever its intended setting may be.

The IC Map. The map is arranged as a chart (see Figure 2.2), such that the components of the new program, practice, or process (that is, major pieces or parts, such as objectives, materials, instructional approaches, and assessment tools of an academic curriculum) are situated vertically and labeled Component 1, 2, 3, and so on. There are five components on this map. It is critical that each of these components be stated in action terms (verbs that are observable). Note in the upper left corner the term *teacher.* This identifies the role of the person for whom the IC map has been constructed. When *teacher* is placed in front of each of the component statements, a complete sentence can be created. For example: *Teacher selects objectives.* These indicate the components *in operation* in the intended setting.

For each component, the ideal variation is described in cell (1). Across the continuum, there is an array of variations decreasing in value from the ideal description of the component in cell (1). Note that there are not the same number of variations for all components. The variations are derived from predicting how teachers will be using the New Math Program (in the figure) and arranging them in decreasing value.

Measuring IC. As a result of a collaborative conversation with the facilitator that leads to the implementer's reflection, or an observation by a coach or other facilitator focused on the implementer using the innovation, one cell for each component can be marked that best reflects how the implementer is operating with the innovation. This instrument is meant to be a "growth-inducing" tool. Thus, it is important to mark as accurately as possible and in a collaborative mode, with the change facilitator and the implementer studying the descriptions and matching them to the implementer's current practice.

So that the descriptive cells can be marked as easily as possible, it is important not to put too many descriptive phrases in one cell. If too many descriptors, or indicators (as some prefer to label them), reside in one cell, the individual who is being rated must meet all the

Figure 2.2 A Simple IC Map

Teacher _____			
Component 1: Selects Objectives			
(1)	*(2)*	*(3)*	*(4)*
Selects objectives, in sequence from the district list, and may add objectives to address the needs of particular students.	Identifies objectives from other published documents that cover the district list.	Refers to other sources for objectives not related to the district list.	
Component 2: Uses Materials			
(1)	*(2)*	*(3)*	*(4)*
Uses Heatherton textbook, district supplemental materials, and adds other items to increase student interest and mastery.	Stays strictly within the Heatherton textbook.	Uses other materials collected from teaching experience.	Engages randomly with no systematic set of materials.
Component 3: Engages Students in Learning			
(1)	*(2)*	*(3)*	*(4)*
Encourages students to engage in a variety of learning strategies to meet the particular objective and specific students' needs.	Leans heavily on lecture and text assignments, with students self-checking their work.	Maintains careful daily attention to the scope and sequence of the program in order to cover the materials and objectives.	

Component 4: Assesses Progress			
(1)	*(2)*	*(3)*	*(4)*
Observes students' daily work, provides weekly tests as benchmarks, and uses district assessments for final evidence of mastery.	Uses the Heatherton text's end-of-chapter tests routinely, and occasionally employs the district mastery test.	Relies on classroom observation of students' work and on teacher-constructed tests.	Employs no regular or systematic assessments.
Component 5: Identifies Next Steps			
(1)	*(2)*	*(3)*	*(4)*
Moves students who have mastered current objective to the next objective, and reteaches—using new material—those who have not mastered.	Moves all students along to the next objective in order to cover the program and/ or the textbook.		

Source: Hord & Roussin, 2013, p. 51.

items. This becomes problematic when there is an overabundance of descriptors and the individual doesn't meet all of them.

Using IC to Support the Strategies. As shared in the description of Strategy 1—Create a Shared Vision of the Change, one of the major purposes of the IC map is to provide a clear depiction of the innovation, or new practice, in operation. The first cell of each component describes the new practices in their ideal state and therefore communicates for all individuals what the behavioral expectations for the change are. With the subsequent horizontal cells, it is possible to understand how the implementers will move, across time and with help, to the ideal status.

Because the map indicates what individuals will be doing and how they will be using the innovation, it serves as an initial indicator of what implementers must learn in order to use innovations in the appropriate way. Thus, Strategy 2—Invest in Professional Learning can employ the map to target, plan, and design learning activities for the implementers. The map communicates to change leaders precisely what must be learned for successful implementation. Because the map is explicit, in Strategy 3—Plan for Implementation and Identify the Required Resources, the needs for time, material, and human resources are made clear and cannot be denied. The budget committee should have access to the map so that understanding of the implementers' needs is revealed early and can be arranged.

Strategy 4—Monitor Progress is the formative assessment of progress that is made by the implementer across time. The IC map is an invaluable tool to use for this purpose. At the time of the assessment of the implementer's progress (or regression), the change facilitator involves the implementer in a collegial conversation in order to collaboratively identify where the implementer is on the components of the map, using the map as the standard for implementation. This assessment is done thoughtfully and sensitively so that the assessment decision is shared by both. In close relation to these data generated by Strategy 4 is the use of these data for Strategy 5—Provide Ongoing Assistance. This assistance is the identification of a supportive intervention that will help the implementer move closer to the ideal description of innovation use. Since the IC map is a growth-inducing tool, it should be used by the facilitator in such a way as to accept where on the continuum the implementer currently is placed, with an appropriate suggestion that encourages the implementer and stimulates action and movement to improved practice, as defined in the ideal cell. The IC map was never intended primarily for evaluative purposes, but rather as a tool to illuminate and facilitate teachers', principals', or other implementers' growth toward the ideal.

In Strategy 6—Create a Context Conducive to Change, the IC map is used to guide appropriate approval for clear areas of strength and to identify areas for growth and improvement. It also sets the stage for the implementer's self-analysis and self-correction. The coach, or facilitator, does this while continuing trust building with the implementer. The assessing and assisting conference of Strategies 4 and 5 with the implementer also supports the implementer's confidence,

competence, and professional status, while guiding her or his appropriate use of the innovation.

Change facilitators and coaches can be of tremendous benefit to learners of new programs and for developing a context conducive to change. But the coach requires deep knowledge of the new program and well-honed skills for working as a supporting and caring individual who uses data and their analyses on which to base coaching activities. Data collection tools such as Innovation Configuration maps are essential for understanding the individual user's progress in her or his efforts to implement innovations.

Applications of the IC map include the following:

- Describing and communicating what the innovation or change is, while identifying best practices (ideal variation) of the innovation; providing a common vocabulary for dialogue and conversation about the change that promotes commitment to the change; and setting expectations for the ultimate quality use of the innovations as novices of the change move to expertise
- Clarifying the *what* of the innovation during creation of the map by potential users, thus deepening the implementers' understanding of the innovation and promoting the individual's reflection and assessment of his or her practice of the change
- Providing the means by which instructional leaders can accurately discuss the progress of implementation, identify specific resources and support needed for innovation implementation and sustainability, and provide guidance for the design of professional learning
- Providing the basis for altering or differentiating the innovation or its use over time

School and district leaders and other change facilitators frequently ask about the difference between a rubric and the IC map. Please note Figure 2.3.

Kennedy, in responding to a group of educators with whom she was working, studied this question, consulted with a number of IC users on the question of differences in a rubric and an IC map, and has offered a comparison chart. This comparison is more holistic than analytical, and general versus task specific. As she notes at the bottom of Figure 2.3, there appears to be much similarity between the rubric and the map, although the structure and voice are easily

Figure 2.3 Differences Between an Innovation Configuration Map and Rubric

Major Differences		*Innovation Configuration Map*	*Rubric*
Structure and Conventions	Range	Highest level is on the left, and lower numbers are ideal	Highest scale is on the right, and higher numbers are ideal
	Number of levels	Number of levels varies for each component (e.g., 1–4; 1–5; 1–6)	Number of levels is the same (uniform) for each
Purpose and Functions	Voice	Written in active voice (always begins with an action verb)	Written in passive voice (may include more adjectives and adverbs)
	Purpose	Describes behaviors	Describes qualities
	Focus	Focused on responsibilities of roles (often many roles) to support implementation of new practice, the innovation	Focused on student work, assessments, etc.
	Uses	Primarily intended for support and assistance; growth orientation. Used to inform what a new practice is and how to enact it.	Primarily used for evaluation of a final product

Note: These are general differences. In that rubrics take many forms, some rubrics are very similar to an Innovation Configuration map.

Source: Kennedy, 2013. Used with permission.

distinguishable. The most significant difference in these two instruments is the *uses* for which the two constructs are employed. The IC map is intended for the assistance and support of the implementer's growth—it is used to inform what a new practice is and how to enact it—while the rubric is primarily used for evaluation of a product.

The jury probably is still out on the question of rubric and IC map differences, but until more specificity is gained, Figure 2.3 is helpful in understanding the two tools.

We now give attention to a second research-based construct deemed highly useful for successfully implementing the standard of implementation.

Stages of Concern

The cornerstone of the Concerns-Based Adoption Model, Stages of Concern (SoC), has been reported by George, Hall, and Stiegelbauer (2006), with modest revisions to the original construct. This construct identifies an individual's feelings, attitudes, and perceptions about an innovation. SoC represents the personal side of change, for it reveals the affective dimension of the individual's view of implementing a change. Thus, this affective dimension can be helpful or disruptive to the process of implementation.

Seven Stages of Concern. The CBAM researchers identified and confirmed seven types or categories of concerns, with each labeled and defined by an individual's expressions or comments. Individuals perceive tasks and expectations in different ways depending on their knowledge, experience, and worldview, thus the different categories of concern. They may feel overwhelmed and confused, or threatened by the expectations of the changes to be implemented. Their concerns are typically stimulated by their perceptions, rather than by the reality of the situation.

Facilitators responsible for supporting individuals in their implementation of an innovative program, process, or practice will find it of great value to identify implementers' concerns and act to reduce or ameliorate them. The seven Stages of Concern and an individual's typical expression that identifies each stage can be viewed in Figure 2.4. Notice that the seven stages are grouped in four categories: unrelated, self, task, and impact.

Measuring Stages of Concern. But how does a facilitator or supporter of implementation gain access to an individual's SoC? There are three methods for doing this:

1. A *short interview* that appears very casual and is conducted in the implementer's office, classroom, or even during a short walk across the parking lot is conducted by the facilitator with the implementer. CBAM researchers label this short interaction a "one-legged conference," for it takes not much