1 THE CONCERNS BASED ADOPTION MODEL (CBAM) AT 50

A Story of Ideas, Policies, People, and Politics

Gene E. Hall

Gene E. Hall, PhD, Professor Emeritus at the University of Nevada, Las Vegas, and President of Concerns Based Systems, Inc.®. He continues to be involved in projects related to implementing change in the United States and elsewhere. He has had a career-long involvement with the development of programs and national accreditation of teacher education. He began his career as the Science Methods instructor and faculty team member for the experimental Personalized Teacher Education Program (PTEP) at the national R&D Center for Teacher Education, The University of Texas at Austin. Subsequently, he was a faculty member at the University of Florida, the University of Northern Colorado, and UNLV. He has twice been the Dean of a college of education. He also has had career-long involvement with studies of the change process and development of tools and applications of the Concerns Based Adoption Model (CBAM). He is coauthor of *Implementing Change: Patterns, Principles and Potholes* (5th ed.) and *Introduction to Teaching: Making a Difference in Student Learning* (4th ed.).

ABSTRACT

The development and applications of the Concerns Based Adoption Model (CBAM) has unfolded over five decades. There was initial research that verified each construct. Over the years, these evidence-based constructs and tools have been used to assess change, facilitate change, and coach leaders about actions to have change success. The story of how a set of ideas about change came to have a long life is worth telling. In the case of CBAM, a combination of ideas, people, policies, and politicos resulted in the establishment of a set of evidence-based constructs and tools that are used around the world. This chapter summarizes the R&D projects and describes how policies and people can be mutually supportive and together establish and sustain programmatic activities for decades. Also included are some behind-the-scenes anecdotes that supported—and in some cases worked against—the ongoing efforts to learn more about understanding, assessing, and facilitating change processes.

POSING THE PROBLEM

There is a very large expanse of time between having a good idea and its verification, establishment, and wide usage. Supporting a research team over time, conducting rigorous studies, working with practitioners to explore the utility of the ideas, and having widespread diffusion requires a lot to go right. There have to be policies, budgets, and infrastructures that support on-the-ground scopes of work. In addition, there are capabilities that are necessary to work across the policy to practice continuum. Rarely is this portfolio of resources and efforts assembled and sustained, and rarely are the results used in any field, especially in education. The CBAM story is a unique exception to these generalities. In this case, the constructs, the founding team, the study findings, the tools, and the applications were initially developed in education settings. Over time, all have diffused to many other fields and places.

LEARNING OUTCOMES

After reading this chapter you should be able to do the following:

1.1: Analyze the steps and hurdles to establishing and sustaining a long-term research agenda that provides evidence-based tools that practitioners use to facilitate change.

1.2: Cite examples of how findings from research can support verification of a construct and lead to unexpected findings.

1.3: Use real-life examples to illustrate the capabilities and strategies that are key to conducting research that leads to findings that can be used to facilitate change processes.

THIS BOOK

Each chapter in this book is about a core CBAM element. The chapter authors represent a diverse range of experience with studying and facilitating change processes. Each chapter introduces and defines a key construct, summarizes applications, offers critiques, and suggests extrapolations that might be tried next. In addition, each chapter offers recommendations and plenty of examples for facilitating change processes. Four chapters are case study reports of how the three Diagnostic Dimensions have been used to systematically assess implementation. The final three chapters push out our thinking. Issues in implementing policies, other ways of thinking about change, and system thinking are important capstones.

This book is the product of years of research and development (R&D) by many people across many settings and many countries. A lot has been learned about assessing and facilitating change in educational settings.

The Story

Rarely do a perspective and its research findings and applications in practice stay alive over fifty years. A lot has to go right. Behind the scenes there will be people, politics, and a few good ideas. Summarizing the 50-plus years of activity related to CBAM is the purpose of this introduction. The story begins by highlighting the federal policies that laid the ground for CBAM to come into being. This story is a combination of how policies, people, politics, and a few good ideas emerged as a framework for understanding, assessing, and facelifting change processes.

The story is, in part, autobiographical. I describe how federal policies can be a critical component of the scientific process. The story also includes the twists and turns natural to R&D and the ever-present role of politics. Throughout, good people have been the key. I name some of them but not all. Along the way, I will introduce each of the chapters in this book.

The remainder of this introduction is an autobiographical history of how CBAM came to be and descriptions of key events over its 50 years of use. Without certain policies, exceptional people, and politics there would be no story to tell. Part of the story is how research studies verified each of the CBAM constructs. Another part is an overview of how the many applications in practice further documented its validity and utility. There were critical events and decisions along the way. Study findings contributed to construct and measure refinement. Key policies made intensive studies possible. Without exceptional people, the quality of work would not have unfolded. There were decisions, people, policies, and politics that led to major accomplishments. There also were some decisions that placed the whole endeavor at risk. The aim is to illustrate how it can be possible for policies, people, and politics to align, in order to establish and sustain high-quality academic work. Of course, there must be a few good ideas, and in the case of CBAM, one must stay grounded in the realities of change processes.

Federal Policies That Affected the Development of CBAM

As part of President Johnson's "war on poverty" in the 1960s, the first Elementary and Secondary Education Act (ESEA) was passed. As part of ESEA, nine research universities received funding to establish R&D centers. Each had a designated theme. For example, UCLA was focused on evaluation, Pittsburgh on learning, and Oregon on administration. Each center was funded for five years. For the first time, there was federal funding for "programmatic" research in education. The founding of CBAM came at another of these centers, the R&D Center for Teacher Education at the University of Texas at Austin (UTR&D).

Also established by ESEA were 20 regional education laboratories (RELs). The U.S. was divided into geographic regions, and each region had a lab. There was Research for Better Schools based in Philadelphia, the Appalachia Educational Lab in Charleston, West Virginia, and the Far West Lab in San Francisco. In combination, the centers and labs were to work with states and school districts to improve education.

At this time, Clark and Guba (1965) proposed four parts to the innovation process: research, development, diffusion, and adoption/utilization. These four parts became the rationale for the labs and centers. The centers would do basic research, the labs would do applied research (i.e., development), the intermediate units (e.g., BOCES and service centers)

would facilitate diffusion. Adoption would be done at the local level. As much rational sense as this made, an early criticism was that it was too linear and one-way. Feedback loops were then inserted in the framework. Note that then—and still—implementation was seen as an event, also known as adoption.

Another policy needs to be noted as a founding part of this story: the National Defense Education Act (NDEA), passed in 1958. This act was in response to the Soviet acceleration of the space race. The aim was to "ensure trained manpower of sufficient quality and quantity to meet the national defense needs of the United States" (NDEA, P.L. 85-864). This policy included fellowships and student loans in math and science in order to prepare the next generation of college faculty. I received a NDEA Title IV fellowship to pursue a PhD in science education at Syracuse University. My dissertation advisor was an assistant professor, Howard Jones. He had earned his PhD at the University of Texas. Do you see a connection coming?

In my last year as a graduate student, my advisor connected me to a project at the Eastern Regional Institute for Education (ERIE), which was one of the RELs. The project was a multiyear effort to support 23 elementary schools "of diverse characteristics" to implement one of the new American Association for the Advancement of Science programs, Science: A Process Approach (SAPA). The first summer, the project brought together over one hundred primary grade teachers on the campus of Ithaca College. The weeklong training was to prepare the teachers to implement SAPA. In hindsight, this was the ideal model for supporting initial implementation. The project followed up with on-site coaching throughout the school year. For me, it was a living example of how to launch a major change initiative.

In the late 1960s, the faculty at the UTR&D center established several projects. There was the pioneering work on the development of Concerns of teacher education students by Frances Fuller (1969). The counseling psychology faculty developed a powerful Personal Assessment System that was designed to support the "personological" development of future teachers. The philosophy was that each person has their own way of growing. Third Force Psychology and especially the work of Carl Rogers were influences. The Personal Assessment process entailed five purpose-developed assessment measures and a personal feedback session.

1968: UTR&D Develops an Experimental Teacher Education Program

The U.S. Office of Education directed UTR&D to develop an experimental teacher education program based on Fuller's concerns of teachers framework and to apply the Personal Assessment System. A set of new assistant professors were hired to develop the Personalized Teacher Education Program (PTEP). The hires included Bill Rutherford for reading and me for science. A master teacher, Shirley Hord, and a counselor, Beulah Newlove, were key partners.

In the fall of 1968, PTEP was launched. It had a cohort of 25 aspiring teacher education students, with a two-semester blocked schedule. They were available from 8 a.m. to 5 p.m. They would be in school for two to three weeks, then on campus for two to three weeks. Their Concerns were assessed regularly, and the Personal Assessment Feedback (PAF) process was used.

The sequence of courses and experiences were aligned with the teacher candidates concerns, rather than the faculty's concerns. The program began with the early field experience of being in the school in August the week before students arrived. Traditionally—and still in

some programs—the foundation course comes early in the program. The foundation professor said, "They can't be in schools until they understand the history of schooling and the various philosophies of education." This course placement was not seen as addressing the early Self Concerns of future teachers. So in the PTEP the Foundations course was delayed to the last 3 weeks of the spring semester. The foundations professor liked having more time for other things. In the late spring, he reported, "Gene, this was like teaching graduate students." The Concerns had developed to higher levels.

1970: The Interinstitutional Program Is Launched

The U.S. Office of Education directed that UTR&D should field-test and start disseminating the PAF and instructional modules. The center codirectors called a meeting of project directors to develop the plan. As it turned out, my project leader was out of town, and I was asked to attend the meeting. The codirectors outlined the plan for the field test. The PAF assessment materials and the modules were to be boxed up and shipped to some universities and colleges around the U.S. Their plan included sending out questionnaires from time to time to see how things were going. There was no thought about training for the counselors or addressing implementation problems. Not knowing any better I blurted out, "That won't work." The codirectors were psychologists and responded accordingly, "What should be done?" Two weeks later, I was director of the newly created Interinstitutional Program.

It was relatively easy to find potential field sites. At the time there was an informal national network of universities developing experimental teacher education programs. It was a special time of innovation and cross institution collaboration. The network ranged from Oregon State, to BYU, to Nebraska, to Houston, to Georgia and Florida. One shared activity was development of learning packages generally called *modules*. All of these experimental programs had developed special instructional packages and a number of observation systems. What they didn't have was the Concerns Model and Personal Assessment Feedback.

Over the next two years, I was the classic change agent (Rogers, 2003). I worked with some 40-plus colleges and universities engaged with implementing our materials. As needed, I drew in some of the UTR&D researchers to consult with visitors and to meet with Frances Fuller. I always took notes on what I was observing. In this field work, I heard the same questions and comments as I worked with each faculty. Slowly I came to realize that I was hearing *concerns*. The questions were very similar to what Frances Fuller had documented with preservice teachers.

A side note: This was indeed a special time for teacher education. There were federal programs encouraging and supporting innovation and a network of sharp faculty willing to share and learn from others. There has been nothing like this since. One significant requirement for developing teacher education programs that incorporate extensive clinical work and fieldwork is that the faculty are not on campus all the time. They spend a lot of time out in the schools. You might have noted that at UTR&D the PTEP was developed by newly hired assistant professors. The same strategy was used, at least in part, at other universities. The assistant professors that truly engaged with their teacher education program risked not obtaining promotion and tenure. For example, six assistant professors at Georgia developed a very innovative program; none of them gained tenure. During this time, I became full time in UTR&D.

1972: The National Institute of Education Is Established Within HEW

During the Nixon administration, there was a policy agenda to do for education what had been in place for the health sciences (i.e., the National Institutes of Health). The result was the National Institute of Education (NIE). Instead of bureaucracy being staffed with long-term federal employees, these agencies had a large proportion of practicing scientists. The NIE had education researchers. The labs and centers were moved under the NIE. Of course, this meant a new round of competition, program proposal writing, and site visits by review panels.

1972: The R&D Centers Undergo Review and Recompetition

Having five-year contracts and grants provides four years of funding stability and the opportunity to do longer term projects. The fifth year becomes a time of heightened tensions and concern about whether there is a future. It also becomes a time to propose new scopes of work. In the case of the labs and centers, there was an additional unstated agenda. Having nine centers and 20 labs funded meant there was much less money to invest in new programs and projects. The solution was obvious: establish an "open" competition and use the review steps to reduce the number of labs and centers.

At UTR&D, new scopes of work were proposed. Most would build on what had been done over the previous five years. Some new projects were proposed too. For example, many of the collaborating teacher education institutions were developing a network around program evaluation. One proposal was for UTR&D to support this network. The most significant work at the center was the process–product studies of teaching being done by Jere Brophy, Tom Good, Carolyn Evertson, and Ed Emmer. They had strong proposals to extend their studies around the "correlates of effective teaching."

The Concerns-Based Linkage Change Model Is Proposed

One output of my being a PTEP faculty member and two years of serving as an external change agent was a pile of field notes about teacher education faculty concerns. By this time ERIE (the regional lab in upstate New York) had been closed. Its last director, Dick Wallace, had joined UTR&D as the chief operating officer. As part of the recompetition proposal development process, he thought a lot of Frances Fuller's work and thought my faculty concerns idea had some merit. So he organized several days at his house with the chart paper. He also invited one of his staff, Bill Dossett, to the sessions. Bill had been a long-time employee at the Department of Defense.

Through that process the Stages of Concern were laid out. In addition, I had this idea that use was not dichotomous; there were different levels. One of the key scholars at the time was Ron Havelock, at the University of Michigan. In a seminal work in which the different change perspectives were outlined, he concluded that linkage was key (Havelock). As part of developing our model, we traveled to Michigan to consult with him. The final product was the Concerns-Based Linkage Change Model (CBLCM). The proposal described how we would move ahead to test the key constructs in the model.

As part of the federal review process, we met with a review panel to explain CBLCM and our planned scope of work. A key member of the panel was Mitch Brickell, a major change

thought leader at the time. He made it clear in the meeting that our thinking was all wrong, and there was nothing there. In hindsight, besides the hidden agenda of closing UTR&D, I suspect a major problem with CBCLM was that we included a bunch of functional equations. With Bill Dossett's help, we were proposing to apply adaptive systems theory to studying change processes. In my fieldwork as an external change agent, I had to adapt to the differences in each institution and within each as their program develop efforts unfolded. I suspect that the math was just too much for the panel to accept.

One Final Attempt

As the center review process unfolded, it became clear that the federal intention was to cut UTR&D. At the end of the formal review process, we were told it was over. However, there could be one final review and appeal to confirm the decision.

Two consultants with national academic stature were selected to make the last-ditch visit. Those consultants were Barak Rosenshine, then at the University of Illinois, and Ken Howie, then at the University of Minnesota. The two consultants viewed themselves as independent and were somewhat rebellious characters. They did their site visit of UTR&D. They liked what they saw and made a pack. Rosenshine really liked the promise in Jere Brophy et al.'s (1986) process–product research proposal, and Howie liked the potential in the concerns work Fuller and I had done.

UTR&D got another five years. Over the next decade, Brophy, Good, Evertson, Emmer, and their doctoral students led the field in findings about the relationships between test scores and teacher behaviors. Hord, Rutherford, Newlove, and I, along with George, Loucks Stiegelbauer, and other grad students, launched the Stages of Concern (SoC) and Levels of Use (LoU) verification studies.

1973: THE CONCERNS BASED ADOPTION MODEL (CBAM) IS STATED

We set the functional equations aside and developed the first published statement of the Concerns Based Adoption Model (CBAM) (Hall et al., 1973). (See Figure 1.). Note that hints of adaptive system theory were maintained.

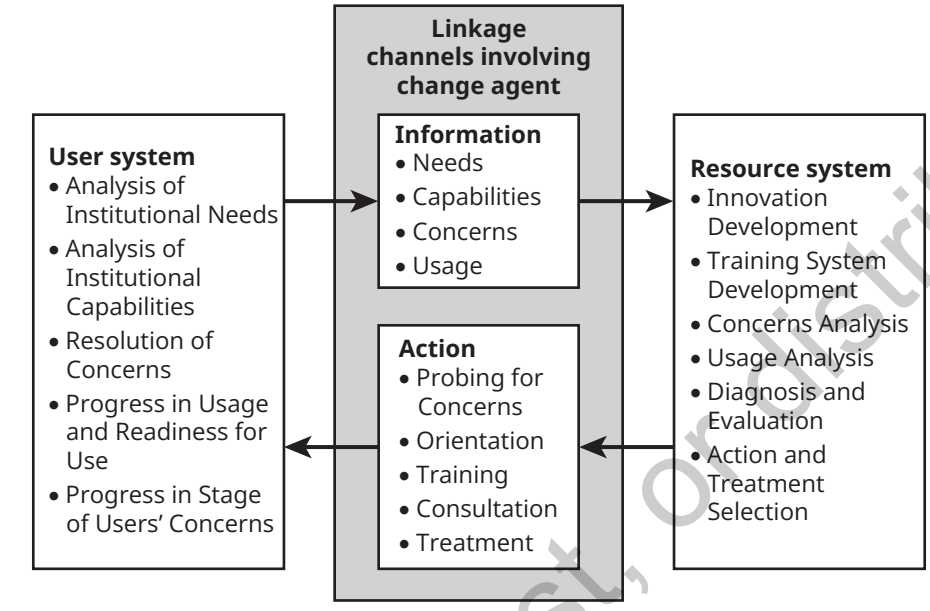
1973–1976: Initial Verification of Stages of Concern and Levels of Use

The CBAM Team is assembled. The founding team included Hord, Rutherford, Newlove, George, Loucks, and me. Stiegelbauer and Hulling joined the team later. For the first set of studies, there were two primary objectives:

1. For Stages of Concern: "Attempt to build a highly acceptable psychometric instrument in the form of a quick scoring paper and pencil questionnaire."
2. For Levels of Use: Develop a reliable and valid measure and verify the different levels.

Construct definition, measurement development, and two major studies were conducted. The studies focused on team teaching in elementary schools (school districts in

FIGURE 1.1 ■ Conceptual Structures and Functional Process Organization of CBAM Components



Source: Hall, G. E., Wallace, R. C., & Dossett, W. A. (1973). A developmental conceptualization of the adoption process within educational institutions (Report no. 3006). Austin: The University of Texas at Austin, Research and Development Center for Teacher Education. (ERIC Document Reproduction Service No. Ed 095 126). Available from American Institutes of Research: Washington, DC.

Massachusetts, Nebraska, and Texas) and the use of instructional modules in teacher education programs (12 colleges). Data were collected on-site one time in the fall and one time in the spring for two years.

Initial Verification of the Stages of Concern

The first step was to develop paragraph definitions for each Stage. The founding CBAM statement was the beginning point. We had the prior work by Fuller to develop a questionnaire for Concerns of Teachers. Then, indicators of each Stage were brainstormed. With use of a Q sorting process, 400 of the initial list of 544 items were judged to be a potential indicator of one of the seven SoC. A pilot instrument with 195 items was tested. Ultimately, a 35-item SoC Questionnaire was established (Hall et al., 1972). Reliability and validity studies were done with school and higher education innovations.

As part of establishing each construct in CBAM, one of the priority objectives was to seek publication of the construct and related work in a journal. These papers would serve as a primary source and disseminate the work to a wider audience. The 1972 paper by Loucks and me in *Teachers College Record* was one piece relating SoC to professional development. Another publication described SoC in relation to implementation of team teaching (Hall & Rutherford, 1976).

One project activity had short- and long-term consequences. Since the CBAM team comprised all beginning scholars, it was important to have advice from experts. For development of the SoC Questionnaire, we had a weekend retreat with established methodology experts. The experts advised on the steps for selecting potential items and then conducting a factor analysis. My question was, "What if the factor analysis doesn't support the Stages?" The reply was, "That is what will happen." When run, the factor analysis was clustered by the main six SoC.

A Continuing Imperfection in the SoCQ

A part of the work that has haunted us ever since is Stage 0 Unrelated. At the original planning retreat, our expert consultants did not think that stage would exist. So we discouraged Stage 0 questionnaire items. However, we have seen since that Stage 0 is very real and is important in interpreting SoC Questionnaire data. (The Seidel paper in this issue delves into this scale. Chapter 2, by Seidel, presents the history and applications of Stages of Concern.)

Initial Verification of Levels of Use (LOU)

Development of a measure for Levels of Use posed a very different set of challenges. This is an operationally defined construct (Hall et al., 1975). LoU is singularly about behaviors, not attitudes or feelings. The way to measure it well would require ethnographic observations and interviewing. This method seemed too expensive for wide scale use. We discovered an article by Foster and Nixon (1975) in which they described an array of designs for interviews. One was the focused interview.

The Levels of Use interview has the focused interview structure. All possible interview questions are not asked. Based on the LoU operational definition and its Decision Points, the interview uses different branches and seems to the interviewee to be centered on how the innovation is working for them. Since, especially at that time, interviewing was suspect, we did a special reliability study. Sixty-plus middle school science teachers were interviewed. Then, a sample of two teachers at each level were selected. This sample was observed for a day using qualitative methods. The correlation between the interview ratings and the ethnographer ratings was 0.98 (Hall & Loucks, 1970). The Dirkson paper in this issue describes the 50-year history of work with LoU. (Chapter 3 by Dirksen presents the history and applications of Levels of Use.)

An Unexpected Finding

In the original statement of CBAM, Level IV was named Independent. The assumption was that once implementers moved beyond Level III: Mechanical Use, they would start making adaptations to improve outcomes. As all of us returned from the first fall of data collection, we were reporting, "There are a lot of people no longer at LoU III, but they are not at LoU I. They are not making any changes!" Since we had already set the LoU levels, Categories, and Decision Points, it was too late to redefine everything. So the decision was to establish a new level, LoU IVA, Routine and have LoU IVB, Refinement assume the Independent definition.

A Second Unexpected Finding: Innovation Configurations

As we continued to debrief, it became clear that all implementers were not doing the same things! They would say they were users. But when asked what they were doing, they would

describe quite different practices. With limited exceptions, the change and program evaluation literature implicitly assumed all implementers were doing the program in the same way. The Diffusion Perspective explicitly talked about adoption as an event, based on an adoption decision (Rogers, 2003). Our field work clearly documented that in different schools and districts teaming was different. For example, how teachers planned, what was shared, the movement of students, and classroom arrangements varied. Also, at different colleges, what was being done under the module label was very different. This finding led to the identification of the third CBAM Diagnostic Dimension, Innovation Configurations (Hall & Loucks, 1981). (Chapter 4, by Zamora and Haynes, summarize the subsequent work with IC.)

1980s: UTR&D Receives a New Round of Funding

The pattern continued with fifth-year reviews and a new five-year plan being proposed. Brophy, Good, Evertson, and Emmer continued to extend their research about the relationships between teacher behaviors and student test scores. UTR&D added Gary Griffin and Susan Barnes to develop a program addressing teacher induction and mentoring.

The CBAM work included continuation of the SoC, LoU, and IC work. The major new direction was the examination of change leadership, especially by school principals. The action taken to facilitate change was addressed through the construct of Interventions. Change Facilitator Style became the topic for exploring relationships between leaders and implementation success. (Chapter 5, by Putney and Lagoon, describes the analysis of Interventions, including Intervention Mushrooms.)

Dissemination of CBAM Works

As time went on, the center gathered wide-ranging national and international stature. There were frequent visitors from the U.S. and scholars from other countries. Intensive two-way exchanges between colleagues in Australia, Belgium, Netherlands, Switzerland, and other countries were productive.

Presentations at Professional Meetings

Presentations at professional meetings were an ongoing activity. For example, symposia and paper presentations at the meeting of the American Educational Research Association (AERA) were annual. We began to have regular attendees at these sessions. The first major symposium was an introduction to CBAM (Hall, 1974). To our amazement, we were honored with having Matt Miles as the discussant. He was insightful and supportive. He was the first change science thought leader to encourage our efforts.

Many Visitors to UTR&D

The research on teaching the continuing support of teacher education colleges and the CBAM work kept gathering a lot of interest. There was an increasing demand for copies of publications and more and more visitors. There also were scholars who spent extended time at UTR&D. For example, Geoff Beeson from Deakin University, Australia, spent a year with the process–product researchers. Jeff Northfield, from Monash University, spent a year inside of several programs. Robin Matthews, also from Deakin University, spent a year with

the CBAM team, including becoming certified to conduct LoU Interviews and participate in study data collection.

The First Significant Cross-National Testing of CBAM

In the late 1970s, Roland Vandenberghe of the Catholic University in Leuven, Belgium, and Rudolph van den Berg at the Catholic Pedagogical Center in 's-Hertogenbosch visited us. This visit turned into a decade-long collaboration. They translated the SOC and LOU constructs and measures into Dutch. They conducted reliability and validity studies (Van den Berg & Vandenberghe, 1981). During the 1980s, an extensive network of Dutch CBAM colleagues conducted studies and continued to collaborate with the Texas CBAM Team (Van den Berg, 1983).

A Three-Year Longitudinal Study

From 1975 to 1979 several studies were conducted to expand the understanding of SoC and LoU. One important study was done in a large school district engaged with implementing a science program in elementary schools. Over three years, SoC was assessed and used to plan teacher training. Twice a year, 200 teachers' Levels of Use were measured. These data clearly documented the pattern of moving from LoU 0, Nonuse to the various user levels.

A Finding We Couldn't Explain

At the end of three years, the data indicated that schools were at very different states of implementation. The schools had similar demographics, all had the same training and on-site support. In a sample of nine schools, four had relatively low and flat SOC profiles, and most teachers were at LoU IVA, Routine. Three schools had high Task Concerns and many were still at LoU III, Mechanical Use. There were two schools with more intense Stage 4 Consequence Concerns and some teachers at higher Levels of Use. We researchers were at a loss to explain the differences. We then met with our study district office colleagues and asked them to think about the differences in school implementation success. With little pause, they said, "It's the principals." They went on to describe how principals in the different schools led the implementation effort. Three Change Facilitator Styles (CFS) were identified.

The Studies of Change Facilitator Style

The studies of Change Facilitator Style then unfolded. Paragraph definitions of each style were established. In a yearlong in-depth study across the school districts, it was found that the correlation between principal CFS and teacher implementation success was 0.76. Schiller (2002) at the University of Newcastle, Australia conducted a replication study and observed similar patterns. In time six Dimensions underlying the gestalt of CFS were identified and a 30-item questionnaire developed. The most recent studies document relationships between CFS and test scores. (Chapter 6, written by me, examines the Change Facilitator Style studies and applications.)

1986: The End of UTR&D

In 1985, another recompetition unfolds. The major competitor was Michigan State University (MSU). They already had a center and were proposing to add teacher education.

This time, the politics were not in favor of UTR&D continuing. The MSU dean was very influential nationally; they had a behind-the-scenes faculty member who was a major player as a scholar and was influential in the review process. At UTR&D, there had been the loss of several senior scholars, including Brophy, who moved to MSU. The UTR&D proposal talked about *leverage points* to strengthen teacher education. It proposed staffing in large part with new, younger up-and-coming scholars. The chair of the review process and site visit was not supportive of having so many junior faculty. He also was a member of the elite national scholar network. MSU won. The university was not interested in sustaining the center.

The Challenges in Sustaining Change

As are addressed at several points in the chapters presented in this book, sustaining change is not easy. In fact, most of the time, implementation of the change is not supported long enough. Change in leaders, new policies, and less-than-dramatic increases in outcomes from early implementation led to abandoning the "old." Another factor is that the innovative project does not make sufficient inroads at home. For example, the very innovative secondary teacher education program at BYU was in a house on the edge of campus. There was little influence on the regular program. The same was true for UTR&D. The center was housed in a building across two parking lots and a creek from the college of education. There was little interest in what the "other side" was doing.

UTR&D was amazingly fortunate to have been staffed with exceptional people, accomplished a large amount of scholarly work, and established national and international stature. The loss of federal funding could have been treated as a hiccup, not fatal. There were residual funds and staff that could have developed new grants and contracts. But there was very little leader or faculty support within the college of education or at the university level to explore possible alternative futures.

The Texas CBAM Team Scatters

I moved to the University of Florida, and Shirley Hord moved to SEDL, the regional lab in Austin. She established an archive of CBAM documents at SEDL that is still in place. There, Brian Litke developed a phenomenal online resource for the SoC Questionnaire. More recently, SEDL became a part of the American Institutes for Research. The CBAM archive and the online SoCQ continue to be available. Also, several AIR staff continue to use SoC, LoU, and IC in their projects. Hord continued to do work with CBAM elements, notably working with Learning Forward to develop IC Maps for professional development. She also became a widely regarded expert about development of PLCs as learning organizations. See, for example, Hord et al. (2010).

Archie George moved to the University of Idaho and continued to be the CBAM research methodologist. Beulah Newlove retired. Susan Loucks-Horsely joined the Network in Andover, MA. Leslie Hulling Austin went to Southwest Texas State University. Suzie Stiegelbauer moved to the University of Toronto, where Steve Anderson had been a longtime CBAM colleague. Bill Rutherford was the only one to remain at UTA.

1986 Was Not the End of CBAM

On the way out, Hord and I published *Change in Schools: Facilitating the Process* (1987). This book is an in-depth summary of the Principal Teacher Interaction Study, where many of the CBAM elements were applied in a yearlong mixed-methods study. The primary purpose was to document interventions associated with the Change Facilitator Style of nine elementary school principals. SoC, LoU, and IC were collected. This book has extensive quantitative data about Interventions. (The analysis of Interventions is reported in this issue in the Putney and Lugano paper.)

CBAM HAS BEEN SUSTAINED THROUGH NEW APPLICATIONS, NEW STUDIES, AND NEW LEARNINGS

Instead of ending, the studies and applications of CBAM continued across many endeavors and countries. Major implementation assessments have been done using one, two, and all three of the Diagnostic Dimensions. For example, in the 1990s, there was an intensive multiyear assessment of a new math program in the Hessen (Germany) DoDEA school district. Findings were reported in two theme issues of the *Journal of Classroom Interaction* (1999, 2000). A five-year project in Harford, Connecticut, developed a cohort of new educational leaders (Hall et al., 2013). There was the first study examining the relationships between principal CFS and test scores. (See the chapter by Hall. In 2005, the first edition of *Implementing Change* was published by Hall and Hord). Each chapter describes a CBAM construct and its application. That book is now in its fifth edition.

Contemporary examples of implementation assessments applying SoC, LoU, and IC are presented in Chapters 7 through 10. In Chapter 7, Yung reports on a two-year case study of a well-regarded mathematics teacher striving to use formative assessments. In Chapter 8, Cavanagh assesses the concerns of middle school teachers engaged implementing a Culture of Care. In Chapter 9, O'Brian describes assessing implementation of two-year districtwide initiatives. In Chapter 10, Loh documents that it is possible to sustain use of a national curriculum.

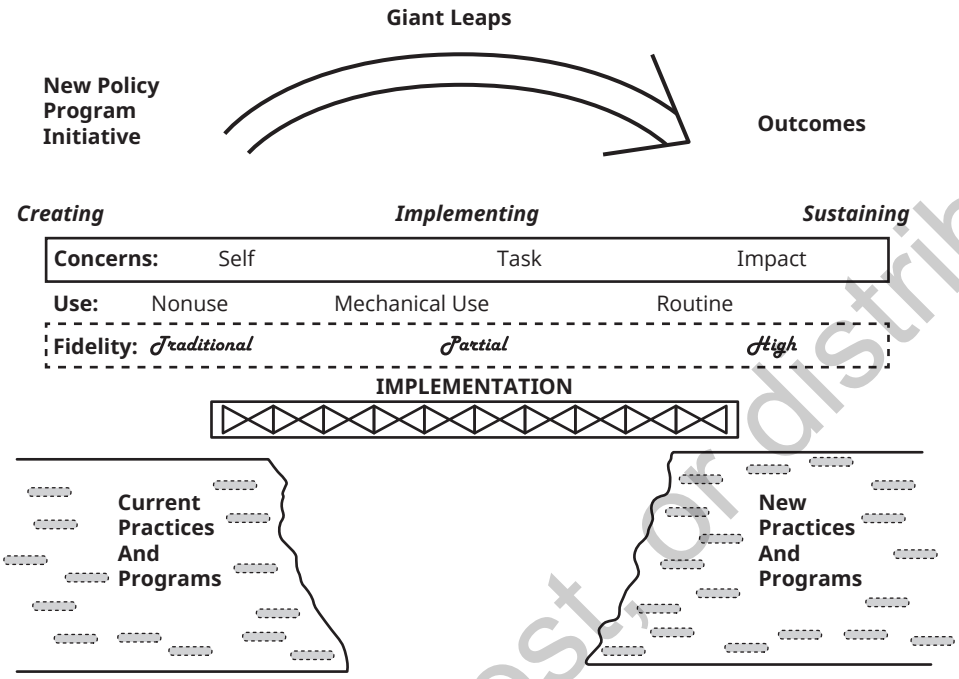
The Bridge Metaphor

In 1999, I introduced the Implementation Bridge metaphor (Hall, 1999). It has helped to visualize the complexities of change processes. It also has been a useful way to illustrate how SoC, LoU, and IC unfold as progress is made in getting across the bridge. Hord and Roussin (2013) have done informative work describing how Game Plan Interventions can be used to facilitate getting across the bridge.

CBAM Now

In comparison with the first VNS< image (Figure 1.1), the CBAM view of change is much richer. All of the original elements are there, with greater definition. As can be seen in Figure 1.3, the full CBAM framework now includes each of the key elements that have been defined, intensively studied, and applied in change initiatives. The constructs and measures

FIGURE 1.2 ■ The Implementation Bridge



Source: Hall, G. E. (Summer, 1999). Using constructs and techniques from research to facilitate and assess implementation of an innovative mathematics curriculum. *Journal of Classroom Interaction*, *34*(1), 1–8.

have been applied beyond P–16 education, including business, health sciences, government, and the military.

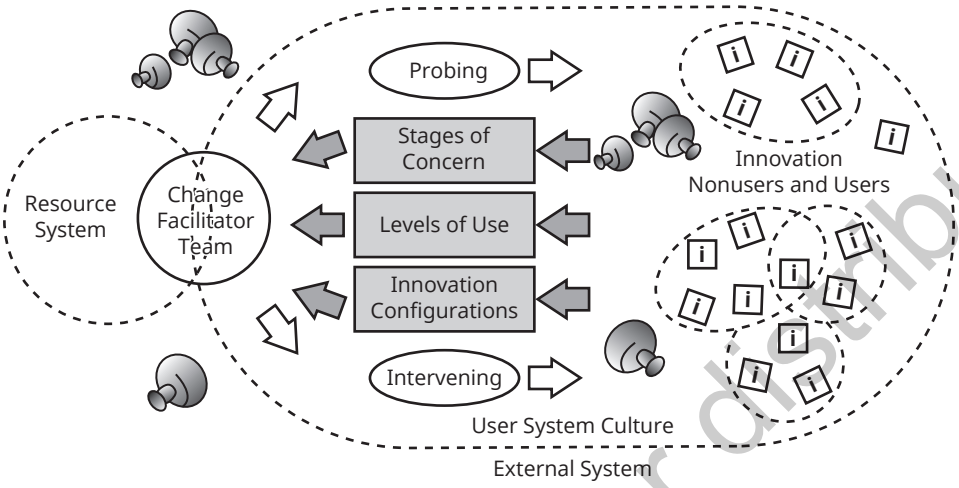
Where to Go From Here?

All of the CBAM constructs emerged from on-the-ground experiences with what happens as people, organizations, and stems engaged with implementing change. The first years of study centered on developing reliable and valid measures and determining whether or not the three Diagnostic Dimensions were real. The measurement development work was done at the individual level. This approach was taken with the belief that understanding change begins with having reliable and valid data for individuals. The individual data can be aggregated to make inferences at the team, department, organization, and system levels. But without the individual building blocks, there will be major uncertainty when drawing inferences at the larger units of analysis.

Key Topics for Future Study

The focus, in general, has been on understanding what happens within the User System. Beyond analyses of Change Facilitators, little has been done to study subsystems and systems. We have not been able to return to the adaptive systems aspects introduced in the original (1972–1973) papers.

FIGURE 1.3 ■ The Concerns Based Adoption Model (CBAM)



Source: Hall, G. E. (2013). Evaluating change processes: Assessing extent of implementation (Constructs, methods and implications). *Journal of Educational Administration*, *51*(3), 264–289. (2014 Legacy Award)

I asked the authors of Chapters 11, 12, and 13—Vandenberghe, Wandersman, and Osher—to "stretch our thinking," which they do. Each introduces additional topics and concepts. They require us to think more macro and in novel ways. They set the stage for further advancing our understanding of change.

IN CONCLUSION

It is amazing to reflect on 50 years of experiences around the Concerns Based Adoption Model. Each of the CBAM elements, the studies, and the applications by many people in many places with many change initiatives clearly made the case for the first CBAM assumption: *Change is a process, not an event* (Hall et al., 1973). There were major national policies that made most of the initial work possible. Many key people were in the right places to do and/or support the works. Most of the time, the effects of the unsupportive policies, politics, and people were overcome. In the end, a few good ideas and a wide array of sharp and collaborative people accomplished a lot. Having a worldwide invisible college of colleagues and friends has most certainly been a strength. It will be very interesting to see what is learned about change over the next 50 years.

DISCUSSION QUESTIONS

1. What do you see as the key events in the CBAM story? Which of the following do you think is more important in launching and sustaining an initiative: policies, people, politics, or a few good ideas?

2. The unit of analysis for many efforts is a team, a school, or a district. The CBAM work began with developing valid and reliable measures at the individual level. What would you have done?
3. CBAM includes a lot of constructs and tools. For your change initiatives, which would you want to use?
4. Have you thought about and/or had experience with how policy and practice interrelate to support and inhibit progress?
5. There always are behind-the-scenes agendas, critical actions, and decisions. What role did these play in CBAM having an over 50-year run?
6. What have you learned from this story that you can be applied in your endeavors?

APPLYING THE CBAM STORY TO FACILITATE CHANGE PROCESSES

1. What are some important learnings about the relationships between policies and practice that can help in achieving change process success?
2. How important is having an evidence base to achieving change process success?
3. Which policies support and which inhibit change process success?
4. Developing and sustaining a change process requires ongoing support and time. What have you picked up from the CBAM story that you can use as you are facilitating change?

APPLYING THE CBAM STORY IN RESEARCH, PROGRAM EVALUATION, AND IMPLEMENTATION ASSESSMENT STUDIES

1. Design a plan for you to establish an R&D agenda that incorporates related policies.
2. Propose a case study of a change initiative that is currently underway. How are policies affecting progress of this project?
3. Outline a study that would examine the characteristics of policy and practitioner leaders that would facilitate change being accomplished.

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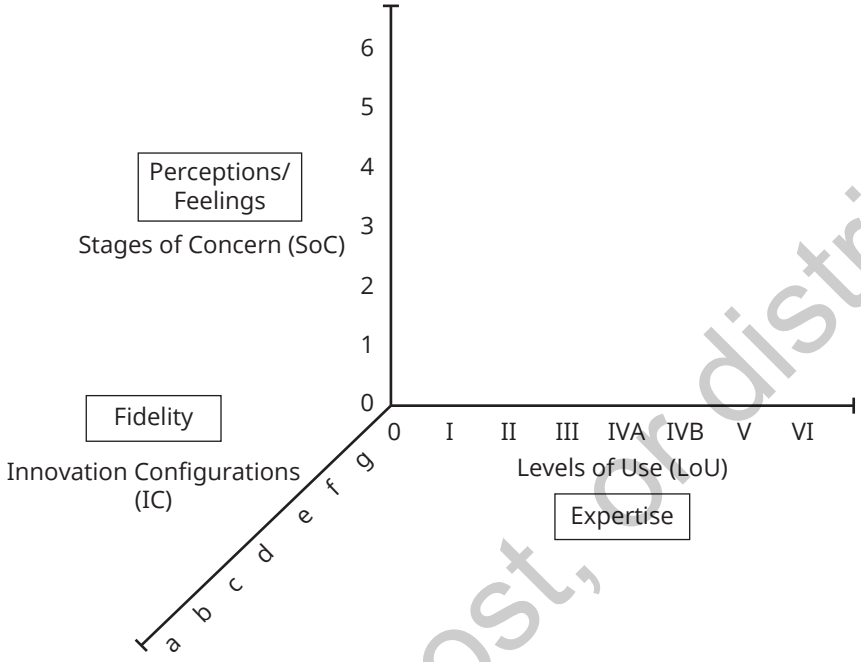
PART I

THREE DIAGNOSTIC DIMENSIONS

Understanding Feelings, Developing Expertise, and Analyzing What the Change Actually Entails

Regardless of the scope of the change, whether it be small-scale or national policy, in the end, the people, individually and collectively, bring it into reality. The foundational perspective for CBAM is addressing the realities on the ground with the people implementing the change. They have feelings and perceptions related to the change. They have to move from being nonuser of the new to being proficient. What "it" is that they are to do is not always clear. The three Diagnostic Dimensions—Stages of Concern, Levels of Use, and Innovation Configurations—address the view from the ground (see Figure 0.1). Change science experts have defined, measured, and validated each construct. Over the last fifty-plus years, the constructs and measures have been applied in research, implementation assessments, and as a tool for facilitating change. Each is an independent construct, and measures are valid and reliable at the individual level. Data about individuals can be aggregated to describe groups, teams, organizations, and large systems. Together, the three constructs are the Diagnostic Dimensions.

FIGURE 0.1 ■ Relationship Between Stages of Concern, Levels of Use, and Innovation Configurations



2 STAGES OF CONCERN

Perspectives on Engaging With Innovation

Kent Seidel

Kent Anderson Seidel holds a PhD in Organizational Theory and Behavior from the University of Cincinnati. He has researched teacher preparation and early career development, systems change, and leadership for school improvement since 2001. Through the Alliance for Curriculum Reform, he worked with nearly 30 national education professional organizations starting in 1990 and first began collaborating with Dr. Gene Hall on teacher preparation improvement projects in 1994. Dr. Anderson Seidel currently works with school, district, community, and state partners, bringing expertise in implementation and innovation research and practical measurement to local site improvement efforts. This includes small rural sites around Colorado, the United States, and several other countries, as well as large urban and urban-suburban districts and state departments of education. He is the founding Co-Director of the Center for Practice Engaged Education Research (C-PEER) and Associate Professor in the Research and Evaluation Methods division of the School of Education and Human Development, University of Colorado Denver. C-PEER houses many resources and training expertise for the Concerns Based Adoption Model methods.

ABSTRACT

This chapter examines the history of use and provides updated use advice for one of the three central dimensions of the concerns-based adoption model: Stages of Concern. This includes a comprehensive overview of Stages of Concern concepts, and the three methods used to capture evidence about concerns held by those engaging with implementation of change. The method most used is the Stages of Concern questionnaire (SoCQ), which creates profiles of the Stages of Concern for individuals and groups. Also discussed are two less formal ways of gathering data, the One-Legged Interview (OLI) and Open-Ended Concerns Statements (OECS), both especially important for leaders as they stay informed about the progress of implementing an innovation. This chapter focuses on actions that leaders may take in response to the concerns of implementers of change and Change Facilitators. To effectively facilitate and support implementation of an innovation—a program or practice new to the implementer—leaders must understand the concerns that implementers and those who support them may have.

The 50-year record of publications utilizing Stages of Concern concepts in research and practice contexts is briefly summarized, supplemented by an analysis of uses of the Stages of Concern questionnaire since 2008. Readers will learn about the development and operationalization of Stages of Concern concepts and evidence tools. A primary focus is how to appropriately gather, interpret, and respond to data about the concerns of both implementers and Change Facilitators who are engaged in change.

In this chapter, the C-PEER team is occasionally referenced. This team comprises the codirectors of the Center for Practice Engaged Education Research, Dr. Kent Anderson Seidel and Dr. Julie Oxenford O'Brian, and three doctoral candidate research assistants, Amanda Christopher, Liza Eaton, and Laurie Wretling. The team consults with Dr. Gene Hall and has been conducting comprehensive research and development related to capturing and analyzing information about the past 50 years of CBAM as we look forward to its future.

POSING THE PROBLEM

When an innovation (an initiative or program) is introduced, to be successful it is vitally important to understand the concerns of the individuals who must implement the innovation. Often, in adopting a substantive innovation, both implementers and the Change Facilitators supporting them are asked to change deeply held convictions and/or long-established patterns of practice. At all points along the change process, Stages of Concern describe the feelings, beliefs, and intentions of those using an innovation. Information is provided in this chapter about how Change Facilitators and other leaders can be informed by and responsive to evidence about Stages of Concern to support their own and others' efforts to change.

LEARNING OUTCOMES

After reading Part I of this chapter, the learner should be able to:

2.1: Understand and discuss the applications of the Stages of Concern concepts in relation to introducing and implementing an innovation or change.

2.2: Describe the three primary ways that evidence about Stages of Concern is collected and interpreted and similarities and differences in these related to how leaders can understand and respond to concerns.

2.3: Gain insights about the breadth of use and many innovation foci where Stages of Concern concepts have been used in both practice and research, and develop ideas where SoC would be useful to leaders.

2.4: Explore a variety of change leadership approaches to developing interventions and supports in response to evidence regarding Stages of Concern for both individuals and groups, including how Change Facilitators and implementers may require similar as well as distinct approaches.

2.5: Examine potential misuses and misperceptions about how Stages of Concern evidence is gathered and interpreted and how to avoid them.

INTRODUCTION TO THE STAGES OF CONCERN THEORY AND CONCEPTS

The Concerns Based Adoption Model (CBAM) emerged from—and has since contributed to—decades of research on change in education and other settings. Foundational CBAM

principles include that individuals implement change through learning, that change is a process not an event, that appropriate interventions are key to implementation success, and that while individuals implement change, organizations adopt innovations and must be the unit of focus for change (Hall, Wallace, & Dossett, 1973; Hall & Hord, 2020).

Implementers are those who are learning about and using the innovation. CBAM uses the term *innovation* to refer to any practice, program, or specified behaviors that are new to the implementer. The innovation may or may not be a newly developed program or practice, but it is new to the site implementing change. Change Facilitators are those who are engaging with implementers of the innovation, typically from the position of a coach or supervisor. Occasionally a person facilitating implementation of an innovation is also an implementer in their own work. In those cases, Change Facilitators and researchers should ask about concerns related to both roles, as concerns about implementation work can vary significantly from these two perspectives.

Concerns are not assumed to be negative in nature. For example, Concerns about how an innovation might affect one professionally could be about whether the innovation will make the job harder, but they could also be about whether the innovation will lead to promotion opportunities. A high level of concern about how an innovation will impact clients (e.g., students, teachers learning a new program) reflects that an individual is placing their attention on that aspect. Concerns about impact might be considered negative—that an innovation will be detrimental to clients—or positive—wondering about how an innovation might improve client outcomes.

The Seven Stages of Concern Constructs

The term *Stage* "is a way to reflect how each area of concern can evolve and is related to others. The stage idea also is used to suggest the ideal flow of concerns as people get more experience and change processes unfold" (Hall, 2023, p. 38). There are four primary groups of Concerns:

1) Unrelated Concerns—Having thoughts about and focusing attention on other innovations and/or priorities.

2) Self Concerns—Related to needing information about the innovation, as well as being concerned about how it may affect one personally and/or professionally.

3) Task Concerns—Regarding what it takes to manage implementation of the innovation.

4) Impact Concerns—Regarding how use of the innovation affects clients (e.g., students, those impacted by a new business process), how it affects collaboration with others implementing the innovation, and in some cases, considering ways that the innovation might be adapted to better serve the implementer and/or clients.

The seven Stages are illustrated in Table 2.1 by presenting a statement that a person with those concerns might say.

It can be easy to focus primarily on the value of the Stages of Concern concepts and methods to provide insights about the concerns and needs of those implementing change—indeed, this chapter focuses mainly on that group. However, attention to Stages of Concern of Change Facilitators—those on the "front line" of supporting and coaching day-to-day

TABLE 2.1 ■ Stages of Concern (SoC) Typical of Implementers

	Stages of Concern	Expressions of Concern
Impact	6 Refocusing	I have some ideas about something that would work even better.
	5 Collaboration	I am concerned about relating what I am doing with what my coworkers are doing.
	4 Consequence	How is my use affecting clients?
Task	3 Management	I seem to be spending all my time getting materials ready.
Self	2 Personal	How will using it affect me?
	1 Informational	I would like to know more about it.
Unrelated	0 Unrelated/Unconcerned	I am more concerned about some other things.

Source: Hall & Hord, 2020, p. 107.

innovation—is also essential. Change Facilitators are also implementing the innovation; they just work with it from a different perspective. The items in the Change Facilitator SoCQ are expressed and grouped similarly to the implementers' version but focus on the types of leadership activities needed to support implementation.

The Change Facilitator focus of SoC data is valuable for *nonevaluative* comparisons of Change Facilitators with each other and with the group of implementers they are supporting. Depending on the innovation, however, there may be very few individuals in change facilitator roles, making anonymity unlikely. This requires building additional trust among the leaders and Change Facilitators—about each other and the planned innovation. Change Facilitator SoC profiles can launch powerful conversations about supporting the innovation if trust is strong among the team.

In formal measurement terms, the idea of a Stage is a construct that one cannot see directly but must define based on theory about what is seen in practice. Stages of Concern constructs are latent, meaning one cannot directly measure them as is possible with concepts like height or age. Since we can't see latent constructs, to provide valid and reliable evidence for research and practice purposes, researchers define them specifically and concretely to create measures—such as survey items—that can represent various important and unique aspects of the unseen construct. Several tools have been developed and tested to be valid and reliable in capturing information about individuals' Stages of Concerns.

THREE WAYS THAT CBAM COLLECTS STAGES OF CONCERN EVIDENCE

Change is a process, not an event. "Most innovations in education take three to five years to be implemented at a high level" (Hall, 2015, p. 11; also referencing George, Hall, & Uchiyama, 2000; Hall & Loucks, 1977; and Hall & Rutherford, 1976). It is important to

understand that the concerns of individual implementers and Change Facilitators will evolve over time and most likely cycle back and forth among Stages as their work and contexts change. Data about concerns of both implementers and Change Facilitators is important to capture early in the process as well as throughout the implementation effort to devise effective interventions and supports that can help the innovation succeed. There are three instruments used to capture Stages of Concern evidence, in both structured and more informal or formative ways. These are the Stages of Concern Questionnaire, the One-Legged Interview, and the Open-Ended Concern Statements methods.

All of these methods are used to collect information about concerns from the beginning of an implementation effort through the point when an innovation is established and sometimes beyond. The Stages of Concern Questionnaire is used most frequently, as it is short and simple to administer, and it generates highly useful descriptive profiles of both individuals and groups. For informal check-ins, One-Legged Interviews (so named because they are so quick one could conduct them standing on one leg) provide a focused way for leaders to see how things are going in the moment for an individual. For a more structured way to gather evidence about Stages of Concern for formative check-ins, leaders and/or implementers can be asked to complete the Open-Ended Concerns Statement approach. Both OLIs and OECS methods are discussed in more detail later. As with other CBAM tools, there are manuals that provide specific guidance for the proper analysis and interpretation of data generated by these methods.

The first *essential* step to helping ensure that evidence about Stages of Concerns is valid and reliable is to clearly define and describe the innovation that is the focus of change. The most important audience for this is those who are learning about, leading, and implementing the innovation. Individuals must know what they are sharing their concerns about. The way that an innovation is understood by those at a site may or may not be the way that a developer of the innovation describes it. In addition, an innovation may not come "packaged" from a developer. It may be more ephemeral and perhaps defined somewhat uniquely in different sites. For example, our team worked with a district to look at how schools were responding to a directive that they must implement a program to "improve support for social emotional learning." Schools had the option to develop their own program, adopt an established program, or some combination. This meant we had to meet with school leaders and implementers to discuss exactly how the innovation would be described for their site—what did the innovation mean to them in their context?

Importantly, this step to define and describe begins the process of facilitating change. Coming together to make sure everyone is clear and in agreement about the target innovation makes data gathered about concerns more valid and reliable, while deepening the understanding of and trust in the implementation effort and those leading it. Bringing key people together to clearly define and describe the innovation provides a foundation for focusing the goals, direction, energy, and resources for implementation.

To facilitate the progress of innovation, it is most valuable to understand the Stages at various points in the progress of implementation. We recommend carefully selecting key times in the work. For example, if the cycle of implementation has multiple points where new phases of innovation begin (e.g., two related but significantly different curriculum/instruction units in sequential semesters), it may be valuable to administer the SoCQ at the beginning of each

phase rather than at some other time interval. In the same vein, we know that being involved with other major innovations or commitments will increase Unrelated Concerns. If there is another major innovation about to demand implementers' attention and time, administering the SoCQ just before that potential competition may be valuable in planning implementation supports. Of course, in an ideal world, multiple major innovations would not be scheduled at the same time—but that is often not realistic.

Asking about Stages of Concern, whether through the SoCQ, OLI, or OECS methods, means that people are asked to be open with leadership regarding their feelings, beliefs, and intentions about an innovation that leaders have proposed or mandated. Their responses will often be personal and somewhat private to them. Being honest about negative Concerns may be particularly hard to do. In addition, one is sharing about their current work related to the requested innovation. This opens the possibility of inferences by others about the respondent's practices and roles.

These challenges explain many reasons that the expected general progression of Stages of Concern begins with first acknowledging that those to be involved in innovation may not be able or interested in doing so, referred to as Unrelated Concerns. Once embracing the work, the highest expected Stages of Concern are the Informational/Personal (Self) and Management (Task) Concerns. Consider the following examples:

- Will sharing thoughts about it compromise me in some way?
- Will my colleagues and leaders see things I'm currently doing that they don't like?
- Is the fact that there is a proposed new way of doing things mean what I'm doing now is bad?
- Will I be able to do this new thing?

In general, to be successful implementing *any* lasting innovation effort, leaders and implementers must begin by building empathy and trust among all involved. It is also important to build a clear understanding of the goals of gathering information about concerns and how the CBAM tools provide formative feedback to support everyone's efforts. The Stages of Concern idea should be introduced and discussed in the context of how information from the various ways to collect SoC evidence will both help change leaders devise responsive supports and help implementers be more reflective as they work to change their practices. Above all, evidence collected about Stages of Concern should never be used in an evaluative fashion. See "Learning More" at the end of this chapter for a list of several detailed resources and training manuals. These resources provide any leader or researcher with specific information for using the Stages of Concern tools and interpreting and responding to the evidence they generate.

The Stages of Concern Questionnaire

The SoCQ captures data about the concerns of individuals regarding engaging with an innovation. It is available in two forms, one for implementers/users of an innovation and one for Change Facilitators (Hall et al., 1991).

The development of the SoCQ began with bringing teaching and teacher preparation experts together to identify concerns of teachers and teacher candidates that they had observed in practice and which they believed affected teaching success. Using a Q-technique methodology (Stephenson, 1953; Watts & Stenner, 2005), nearly 200 concern statements were generated and then winnowed to approximately 50 items. These were then developed into questionnaire items that were tested through giving the questionnaire to teacher preparation faculty. The resulting data were analyzed to create the final version of the SoCQ used today. Data from 1974 ($N = 824$) and 1975 ($N = 639$) administrations were used in factor analyses to establish the Stages. Subsequently the data were used to develop the normed percentile ranks. The percentiles are used to create Concern profiles for individuals and groups, the scoring process described later in this chapter. (See Newlove & Hall, 1976; George, 1977; George & Rutherford, 1978; and Hall, George, & Rutherford, 1979 for more detail on the early development of the SoCQ.)

The SoCQ is a self-report instrument, which is sometimes critiqued as being less reliable because individuals may not be honest reporting about themselves. However, it is the best approach here as the SoCQ is capturing beliefs, concerns, intentions, and convictions of people relating to their work with an innovation. These exist as latent constructs in the heads of implementers and Change Facilitators.

Open-Ended Statements

A second approach to gathering Stages of Concern evidence encourages respondents to share whatever concerns they may have in an unstructured way through open-ended questions. The SoCQ should include an open-ended question at the end (for example, "Please share any additional concerns that you have about [the innovation] at this time."). While not all SoCQ respondents answer the open-ended question, when taken as a whole, the responses received provide insights into the "why" and context of the full group's SoCQ results.

A related way to gather information about concerns without formally administering the SoCQ is the Open-Ended Statements of Concern method. This simply asks those involved with an innovation to periodically share their current concerns and ideas for supporting their progress. A single question is asked, without requesting respondents' names:

Example 2.1: OESC question

When you think about <insert name of innovation>, what concerns do you have? Please be frank, and answer in complete sentences.

1.

2.

3.

(Hall & Hord, 2020, pg 113)

This method captures data in a recorded and structured way—and usually from a much larger group than one can talk to informally through One-Legged Interviews. Gathering Statements of Concern can be done through handwritten or online methods. Anonymous methods should be used whenever possible—and especially when there is an indication that anonymity might result in more honest responses.

One-Legged Interviews

The One-Legged Interview is so named to indicate that the conversation, or interview, is brief enough that it could be conducted in the time that one could stand on one leg. This is the most informal way to gather information about the concerns of those involved with an innovation. Because it is brief, individualized, and somewhat spontaneous, the information gained will be specific to the individual interviewed. It is important to focus on what interviewees share about their concerns and what supports they may need to be successful and not to rate or judge individuals. Leaders and Change Facilitators conducting OLIs may wish to make notes afterward on what they heard to better understand what ideas are more common or unique and how implementation is progressing over time.

The idea of the OLI is to have a brief, informal conversation about "How's it going?" The result will be that the interviewee feels the leader or Change Facilitator heard them, which in some way will help the interviewee be more successful. The interviewer gains insight into the interviewee's current concerns and needs as well as the status of the change process.

The OLI has three parts:

> Part 1: Open ended, nonspecific question(s) that will let the interviewee set the focus of the discussion about the innovation.
>
> Part 2: As the interview unfolds, develop an approximate estimate of the interviewee's current concerns. This assessment is just to serve as a guide.
>
> Part 3: Listen for concerns as the interviewee talks. For example, are they talking about personal concerns, managing the innovation, or working with others? Being familiar with the stage constructs and examples will guide you here. Think about ways that you could "do something" in response. You don't need to offer suggestions or direction on the spot, but it is important that you follow up in response to what you hear from the OLIs you conduct. This can range from encouragement to offering or guiding the interviewee to some sort of additional support, which may be in the form of coaching, additional resources, or making a connection.

The following are some general suggestions for conducting an OLI. You do not have to use any of the questions as provided here—use those that are most comfortable for you. It is the *feel* of the OLI that is important. Substitute the name you use for the innovation where "innovation" or "it" is used in Table 2.2. The OLI is *not* an interrogation but an engaged, informal conversation. Asking interviewees to share specific examples to illustrate what they mean can also be very helpful.

TABLE 2.2 ■ Example Questions for Interviewing for Concerns (The OLI)

Part I Example Questions: Opening the Conversation
How are you doing? How is the innovation going?
What are your thoughts about it? Do you have any Concerns at this time?
Are you aware of the innovation? Are you using it?
Part II Example Questions: Encourage Them to Keep Talking
Can you give me an example of that?
How do you feel about it? What is your reaction to it?
What do you think of it? What does it mean to you?
How does it affect you? Others you're involved with?
Do you have any reservations about it?
Would you like any information about it?
What questions do you have now?
I'm interested in anything you'll share with me about the innovation.

Source: Adapted from Hall & Hord, 1987, p.65; and Hall, 2023, pp.75-76.

Differences Between the Three Diagnostic Tools

Each SoC method provides information in different settings and with different commitments of time and effort. To get the most from the three SoC methods, it is important to understand what each will provide in different contexts and as implementation progresses. Remember that the Stages of Concern are about the *feelings, beliefs, and intentions* of those working with an innovation. All SoC methods provide insights into what implementers and Change Facilitators are thinking about an innovation and their work with it. Leaders should not infer anything about specific actions and behaviors, which may or may not be consistent with what individuals share about their Concerns. The Levels of Use methods, described in another chapter, are designed to capture data about what individuals are doing as they implement the innovation.

The SoCQ is the most formal approach and requires a concerted effort to get as many individuals working with an innovation as possible to answer the questionnaire—ideally all of them. While the SoCQ takes very little time to complete, getting full participation can be a challenge. However, since the SoCQ is a valid and reliable research instrument that creates profiles of the Stages of Concern for individuals and groups, it is preferred for gathering more comprehensive evidence. The SoCQ captures a formal record over time and allows comparative analysis of profiles and specific Stage scale scores among individuals and groups. All Stages are represented, giving a more complete picture of those in a site. It is also usually possible to administer the SoCQ anonymously. Because of these reasons, the SoCQ is used the most in formal research efforts as well. We recommend using the SoCQ in limited fashion at carefully

selected points in implementation, such as the beginning or end of phases of the work or when seeing a full group profile. This will help leaders with more formal decision making.

The OECS method is a more "formal" approach in that it captures data in writing that can be analyzed and kept on record; it provides "formative" feedback due to its open-ended structure. The OECS is quick, ideally anonymous, and optional, so the challenge of getting a full group to respond is alleviated. OECS is a good way to check in on current concerns, progress, and needs related to an innovation. The data are analyzed qualitatively and provide insights on how the group is feeling about the innovation at that point in time. However, because the questions are open-ended, respondents can mention anything that they are considering at the time, which means that a full group profile of all Stages is not possible.

Finally, while the OLI has a particular approach for gathering feedback from interviewees, it is the most informal of the three methods. The OLI captures information on the fly and permits the interviewer to quickly check in with individuals. These can be focused according to areas of concern found in SoCQ group profiles, but most often, OLIs are used without having administered the SoCQ recently (or at all). While the OLI doesn't create a record per se, a leader or Change Facilitator may want to keep informal notes to better see patterns over time as implementation efforts progress.

USE OF SoC DATA IN CHANGE LEADERSHIP PRACTICE AND RESEARCH

One important aspect of Stages of Concern concepts and ways to collect evidence—especially via the SoCQ and OECS methods, as these generate formally recorded evidence—is their validity for both research and practice. Because Stages of Concern bridge the academic and practical facets of leading and studying innovation, we have found collaborations between researchers and practitioners to be especially dynamic. By actively and intentionally including colleagues in both practice and research sites, all have built the capacity to add the SoC and other CBAM tools to their own evidence-driven leadership toolkit.

It is essential to approach this work with transparency and to include all those working with an innovation. Stages of Concern evidence—whether collected formally through the SoCQ or in more informal and formative ways through OLIs or OECS methods—should not just inform Change Facilitators and leaders who are "doing interventions to" implementers. SoC evidence is also a powerful way to open conversations that will help everyone reflect on the status of the implementation of an innovation and to contribute ideas about what would be helpful in the change effort. We find that discussing Stages of Concern data findings, including SoCQ group profiles (while keeping individuals anonymous), generates dynamic conversations that those working with an innovation find practical and helpful. They feel heard and valued.

Use of SoC Evidence Tools Over the Past 50 Years

The Stages of Concern conceptual dimension of the Concerns Based Adoption Model has proved useful to practitioners facilitating change, researchers studying change, and

practice–research partnerships where both applied research and practical applications come together. To get a better understanding of the ways in which SoC evidence has been collected through the three evidence tools—Stages of Concern Questionnaire, Open-Ended Concerns Statements, and One-Legged Interviews—the C-PEER team conducted a comprehensive search of publications about projects where SoC tools and/or conceptual frameworks were used. We caution that we are not recommending all of these as representing quality research and uses of the CBAM methods; we are simply providing a summary of the 50-year publication record. While these publications offer many good examples, contexts, and ideas for studying leadership and innovation, be sure to work from the official manuals.

The Literature Search

We searched for peer-reviewed journal articles, dissertations, and theses, conference proceedings, practitioner journals and reports, substantive website materials, and requested "gray literature"—unpublished materials from researchers and practitioners known to have used CBAM. Each result was reviewed and coded for numerous aspects of how SoC and other CBAM methods were used, the type of innovation, how long innovations were in place, locations, and type of reporting. We used a wide array of resources via the Auraria Library, which serves the University of Colorado Denver, especially Education Full Text, ERIC (Educational Resources Information Center, via the EBSCO interface), and Dissertations & Theses A&I, plus Google Scholar. We began with known authors publishing about the SoCQ and CBAM, as well as authors and articles recommended by Dr. Gene Hall. We reviewed and coded articles and books and continued the process by searching their reference lists for additional Stages of Concern–related publications. Our initial search terms included Stages of Concern, concerns theory, SoCQ, Stages of Concern Questionnaire, levels of concern, adoption of innovation, implementation of innovation (with "school"), and teacher concerns—all independently and "with" teacher preparation and teacher professional development. In addition, we searched on keywords and terms presented by the publications we found.

To date, we have identified more than 350 peer-reviewed articles, 60 dissertations and theses, and nearly 200 additional practitioner-oriented publications. They report on implementation of innovations across the spectrum of education settings, grade levels, disciplinary areas, and innovation types, as well as various types of implementers and clients. Some studies have used Open-Ended Concerns Statements as a primary source of data, and very few have mentioned One-Legged Interviews. Both OECS and OLI generate mostly formative evidence used as feedback to practice and, therefore, don't lend themselves as well to more formal research studies. For example, we only found nine studies out of more than 500 identified that used Open-Ended Concerns Statements data as their primary source.

We believe that many practitioners represented in the body of literature probably employed OLIs, as many studies report on long-term innovation implementation efforts. In addition, whether Open-Ended Concerns Statements were utilized through the course of an implementation, open-ended questions are typically included at the end of the standard Stages of Concern Questionnaire, so we can assume that most studies and practitioner project reports had the benefit of the explanatory insights that open-ended responses can provide.

Because the SoCQ is easy to access and score and the profiles of Concerns it generates enable comparisons of individuals and groups as well as across time, it is by far the most common in the publication record. Some studies also included the other two primary CBAM dimensions: Levels of Use interviews (about behaviors) and Innovation Configuration Maps (detailing an innovation).

In addition to searching the literature record, the C-PEER team accessed data through a partnership with the American Institutes of Research (AIR), which has made the SoCQ available online for easy use and reporting. These raw survey data represent more than 1,000 administrations of the SoCQ between 2008 and 2023.

Because the SoCQ is most prominent, the remainder of this literature review section focuses mainly on the SoCQ by default. We relay findings from both the literature search and analysis of the 2008–2023 survey dataset to describe the breath and types of uses of SoC concepts. Most publications used the SoCQ for data collection and analysis, and the AIR database only represents use of the SoCQ, not publications.

Breadth of Use Over the Years and Across Locations

The SoCQ has been and continues to be widely used by researchers and practitioners. Our literature search identified 526 publications (not including the early articles from mid-70s to early '80s detailing the development of CBAM, Stages of Concern and the SoCQ), and the AIR dataset included 585 administrations between 2008 and 2023 that specified the year the SoCQ was used. Table 2.3 summarizes these instances of use. While we don't have any way to know how many of SoCQ uses in the AIR dataset overlap with the articles we found since names of respondents and sites were removed, the AIR database describes just a few uses for dissertations. We infer from descriptions that most of the others were conducted by change leaders to inform facilitation of innovations in their sites.

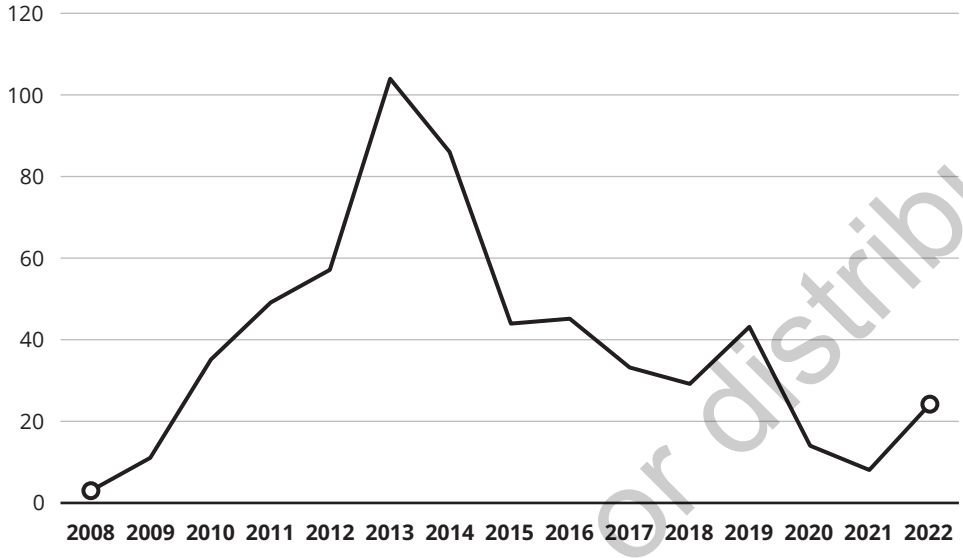
Both publications and online uses of the SoCQ expanded considerably in the 2010s, shortly after the AIR tool went online in 2008. We posit this indicates that practitioners and researchers find the SoCQ to be useful in many implementation efforts and having access to a reliable and easy-to-use resource enabled widespread use. Figure 2.1 presents a graph of the online use record since 2008.

TABLE 2.3 ■ Numbers of Uses of SoCQ on Record

Decade	# of Publications	# of online uses
1970s	6	n/a
1980s	35	n/a
1990s	79	n/a
2000s	109	14 (late 2008 & 2009 only)
2010s	239	571

Source: Seidel, summarizing C-PEER team analysis

FIGURE 2.1 ■ Online System Administrations of the SoCQ



Note: Created July 2024 using C-PEER team data

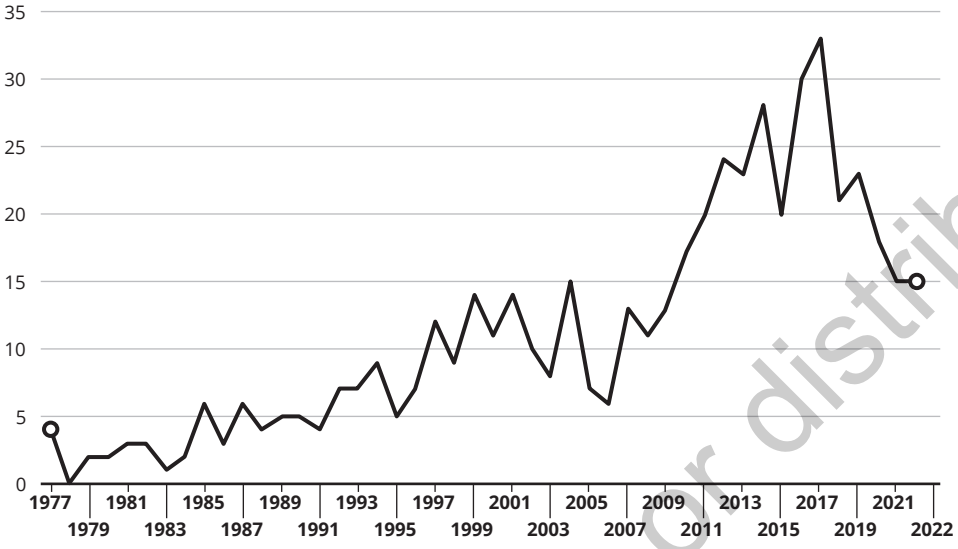
We also searched the literature from 2020 to early 2023, and as of this writing, there are 58 publications and 76 uses of the AIR online system on record. The global pandemic required most school sites to shut down in-person work from March 2020 through the 2020–2021 academic year, with many continuing partial closures into the 2021–2022 academic year depending on local decisions. Journals also have a "lag time" from submission of an article for review to its publication, ranging from six months to more than a year. These are likely reasons we see the dip in online use in 2020–2021. Similarly, we did not expect to identify as many records of SoCQ use between 2020 and mid-2023 as we found. Figure 2.2 shows the publications trend, starting with the first paper we found, from 1977, through 2022, the last complete year we had included in our literature search. Note that papers between 1973 and 1976 were focused on development, not reports of use.

Geography of Use

We coded publications for the location where study sites were conducted, if stated, but it is typical for research reports to use pseudonyms and very general location descriptions to maintain participant sites' confidentiality. The AIR online record of use of the SoCQ provided the most comprehensive record of the geographic range of SoCQ use. Since 2008, the SoCQ has been used for various research and practice projects located in 42 of the 50 states. Figure 2.3 presents the range of use of the SoCQ in the United States, using data where locations were identified in the publication record and the AIR dataset.

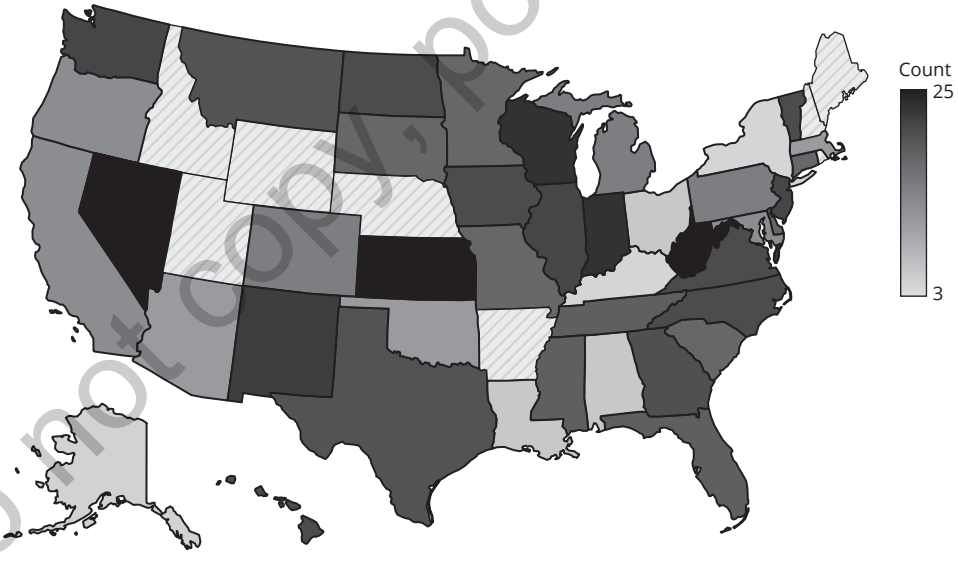
Through CBAM developers' archives, we know that the SoCQ has been translated into Arabic, Chinese, Dutch, Estonian, German, Hebrew, Korean, Malay, and Spanish. We

FIGURE 2.2 ■ Publications Using SoC Data From SoCQ, OECS, or OLI



Note: Created July 2024 using C-PEER team data

FIGURE 2.3 ■ Map of Numbers of SoCQ Administrations in United States



have identified the use of Stages of Concern evidence—mainly gathered using the SoCQ—reported in more than 80 studies conducted in countries outside the United States, accounting for approximately 15% of our literature search findings. During the 1980s and 1990s, articles from outside the U.S. began to emerge from Australia, Belgium, the Netherlands, England,

and Canada (e.g., Leary, 1983; Noad, 1995; van den Berg, 1993; Vandenberghe, 1983; Marsh, 1984; Marsh, 1987; Kennedy et al., 1987). In addition to these countries, we have identified studies conducted in China (Hong Kong), Costa Rica, the Czech Republic, Germany, Ghana, Greece, Ireland, Japan, Korea, Malaysia, New Zealand, Philippines, Singapore, South Africa, Sri Lanka, Taiwan, Trinidad & Tobago, Turkey, United Arab Emirates, and the West Indies.

Use of Stages of Concern With Other CBAM Methods

Because the CBAM instruments are designed to understand change in various contexts and over time, it is not surprising that we found several publications reporting multiple instances of data collection in a study. We identified 48 studies that administered the SoCQ multiple times during an innovation's implementation period (e.g., Kimpston, 1987; van den Berg & Ros, 1999; Giordano, 2007; Derrington & Campbell, 2015; Shin & Park, 2023), but for the most part, we do not know the specific timing for these. We found an additional 88 reports of administering the SoCQ to gather pre- and postimplementation data for the same innovation (e.g., Broyles & Tillman, 1985; Paisley, 1990; Arwer et al., 2004; Chaudhary et al., 2017; Filderman et al., 2022).

Of publications reporting use of multiple CBAM methods, the combination of the SoCQ with Levels of Use interviews was the most common, with 69 studies identified (e.g., Noad, 1995; Wang, 2013; Benner et al., 2022). Twenty studies used instruments capturing all three of the primary CBAM dimensions—the SoCQ, Levels of Use, and Innovation Configuration Maps. Four of these were also multiyear studies (Shotsberger & Crawford, 1996; Julius, 2007; Pratt et al., 1982; Huling et al., 1983). Finally, we found six studies reporting use of just the SoCQ and Innovation Configuration Maps together (Hollingshead, 2009; Donovan et al., 2007; Puteh et al., 2011; Thompson & Fearrington, 2013; Yang et al., 2013; Wetzel, 2014).

Focus of Types and Topics of Innovations

This section presents a high-level summary to illustrate the breadth of use and variety of topics and contexts where Stages of Concern can contribute to practice and research. This may inspire readers with ideas for their own contexts. Most of the publications and information about online SoCQ use studied and/or supported innovations in the early childhood to Grade 12 area (85%) or the higher education sector (13%, including nursing, other medical, agriculture, and business education). A comprehensive presentation and discussion of publications and authors is beyond the scope of this chapter, but readers will be able to access regularly updated information and our further writings via resources described in Learning More. In writing this section, we also referenced Kimmons and Irvine (2021) to get a sense of the trends in education research generally across the decades.

In the early years of SoCQ use, Stages of Concern were viewed as a relatively linear developmental sequence, assuming each person goes through each of the seven Stages in order, from 0: Unrelated to 6: Refocusing. While a generally progressive structure was suggested in George (1977), it is important to note that CBAM literature never asserted a strict developmental progression of Stages. Hall and colleagues presented the progression for general interpretation only: "As logical as the flow of concerns [Unrelated → Self → Task → Impact] may

seem, most of the time the flow doesn't happen in this sequence" (Hall, 2023, p. 24). Stage 0: Unrelated Concerns has a different relationship with the other Stages and therefore is not mapped with Stages 1 through 6 for interpretation as an overall profile.

In the early 1980s, the major foci of innovations were curriculum (math, science, and vocational) and program evaluation (e.g., Dominquez et al., 1980; Cates, 1981). In the mid-80s, studies exploring teachers' concerns with implementing microcomputers, or personal computers (PCs), expanded in the literature (e.g., Cicchelli & Baecher, 1985; Wedman et al., 1986). Overall, in the 1980s, articles relating to teachers' concerns with implementing some type of technology were common.

The 1990s continued with the trend to focus on the integration and use of various technologies in education. Also expanding were studies on change processes in schools, especially regarding involvement of teachers in school sites (e.g., Fennell, 1992; Evans & Chauvin, 1993; McCormick et al., 1995; Aneke & Finch, 1997; Tunks, 1997). Additional use of CBAM methods, including the Stages of Concern, in this decade include teacher professional learning and training for preservice teachers, block scheduling, and implementation of career or technical education and other educational standards.

The 2000s saw an explosion of technology use and its integration in K–12 through higher education classrooms. The 130-plus articles identified in the review focused on how Stages of Concern concepts informed and the SoCQ gathered information about teachers' concerns regarding technology adoption and integration, mathematics and science curriculum and instruction, as well as teacher preparation and professional learning for educators (e.g., Vaughn, 2022; Liu et al., 2004; Giordano, 2007; Goodnough, 2008; Kapustka & Damore, 2009).

In the 2010s, the most common study topics in the 239 publications identified continued to focus on innovations in education sites, from early childhood to higher education. Technology integration expanded as a topic (37% of publications) to focus on e-learning, one-to-one computing, learning management systems, and technology to enhance standard curriculum and instruction. These are connected especially with science education but also nursing, librarianship, and agricultural disciplines.

Many publications in the 2020s have continued to focus on the shift from in-person to distance learning as well as how leadership can help support teachers dealing with sudden changes in their teaching environments. In this decade, researchers (e.g., Dunn & Rakes, 2010; Dunn & Rakes, 2011; Akerson, Buzzelli, & Donnelly, 2010; Ashrafzadeh & Sayadian, 2015) also started to use SoC implementation alongside other validated survey instruments like the Teacher Belief Survey (McCombs, 1997), the Teacher Sense of Efficacy Survey (Tschannen-Moran & Woolfolk Hoy, 2001), the Learning Context Questionnaire (Griffith and Chapman, 1982), and the Diffusion of Innovation theory (Rogers, 1962; 2003). The 2020s, so far, have also seen an increase in authors using the CBAM as a general framework to analyze the implementation of an innovation while using their own surveys or other data-gathering instruments (e.g., Chanda, 2022; Luik & Lepp, 2021; Maseko et al., 2021; Ogegbo & Ramnarain, 2022; Sorbet & Kohler-Evans, 2021; Tamakloe & McCabe, 2022). We strongly caution researchers and practitioners to return to the core SoC instruments and methods as these have a long track record of reliability and validity. One reason for this is that

we fear that the clarity of advice for practitioners on how to respond to Stages of Concern findings in effective ways may become confused by bringing additional related but somewhat different conceptual frameworks to continuous improvement and implementation of change.

USING SoC DATA TO INFORM PRACTICE AND RESEARCH

The Stages of Concern ideas and methods were developed with the intent to not only measure concerns about engaging with new practices but also to provide practical ways to interpret and respond to these concerns to better facilitate change. This perspective is foundational to CBAM theory and practice. Referring again to Hall and Hord (2015), "Change Facilitators must continually adapt their behaviors based on new information about clients, contexts, and the effects of interventions on the individuals in the organization" (p.16). One way to be responsive to the concerns of those involved in change is to explicitly develop interventions based on data about Stages of Concern.

The Concerns Based Adoption Model was developed with a focus on K–12 and higher education, although it has proved valuable in other contexts, such as early childhood, higher education, medical, business, community, and military settings. Initial development of the Stages of Concern began in 1973 based on research about the concerns of teachers and how their concerns impacted teaching and the preparation of teacher candidates. From the beginning, the evidence tools were intended to provide practical information about how people implementing an innovation think about engaging with change and how they feel about change processes (Hall, 2023; Hall & Hord, 2020; Hall et al., 1979; Hall & Lewis, 2024).

At the time of this writing, the C-PEER team has been analyzing a very large cache of raw survey data from approximately 40,000 respondents participating in more than 1,000 administrations of the SoCQ since 2008. Most of the data were accessed through a partnership with American Institutes for Research. Data from studies conducted between 2018 and 2023 by researchers at our Center for Practice Engaged Education Research (raw data $N = 831$ respondents across 47 administrations) were also included. SoCQs were administered anonymously, so no respondents or specific sites are identified, although very often we know the type of innovation and general location and context of the site. These data provide a unique opportunity to review, confirm, and expand advice about interpreting and responding to SoCQ results.

In addition, many of the SoCQ administrations included the recommended questions to respondents about whether they received training on the innovation, how they rate their experience with it, and whether they are involved with another major innovation or initiative. Responses to these questions provide insights as to how leaders should respond to SoCQ findings to effectively support implementation, discussed later in the chapter. The advice offered below about responding to concerns identified by the SoCQ relies on CBAM manuals, research publications, and insights from the recent reliability and validity analysis of the 2008–2023 data (Seidel, in press).

Three key components of using the SoCQ appropriately are (1) administering the SoCQ, (2) scoring and interpreting individual and group SoC profiles (which should never be evaluative), whether for implementers/users or Change Facilitators, and (3) Change Facilitators,

implementers, and other leaders using SoCQ findings to identify the most appropriate interventions and supports to address the Concerns reported by SoCQ respondents.

Administering the SoCQ

Note that the CBAM manuals should be referenced for explicit training and guidance on using the SoCQ. The SoCQ should always be administered anonymously if possible. Having more than five respondents will usually serve this purpose, but it depends on the innovation and site. Regardless, discussion up front and trusting conversations with Change Facilitators are essential.

The Stages of Concern Questionnaire should also include the open-ended question, "Please share any additional concerns that you have about [the innovation] at this time," to capture anything on respondents' minds not addressed by the SoCQ items. There are several other optional questions that we find useful, especially at the start of an innovation effort. These include how long the respondent has been involved with using the innovation, how they rate themselves in proficiency with the innovation, and whether they have received any formal training in use of the innovation. We ask these questions because while an innovation may be new to a site, it may not be new to all of those working there. We also recommend asking a question about whether they consider themselves deeply involved with one or more other innovations or initiatives.

SoCQ Online Administration and Processing

Since 2008, both implementer/user and Change Facilitator versions of the SoCQ have been available for general use via the AIR online site (American Institutes for Research, 2015). AIR provides automated administration of the survey, results, and profile reports. Those administering the SoCQ through the AIR online resource can also choose to add the optional recommended SoCQ items. Analysis of responses to these additional questions, when in our large-scale dataset, lent some important insights for innovation leaders, provided next. See "Learning More" at the end of this chapter to find out how to access the AIR SoCQ administration and reporting tool.

Defining the SoCQ Operationally

The SoCQ has 35 items using a Likert response scale from 0, "Not at all like me now," to 7, "Very true of me now." The five items composing each Stage construct are summed to create a Stage scale score. It is expected that a respondent's concerns generally move through the Stages in a predictable way as individuals engage with an innovation and grow in their experience with it (George, 1977). Thus, with newer innovations, the later Stages of Concern such as Collaboration and Refocusing are often rated lower than Stages such as Informational and Personal, which are typically more intense for implementers new to an innovation.

Because of this, the raw scores for each of the seven constructs are converted into normed percentile scores. Percentile rank scores permit interpretation of an individual's score in relation to others in the dataset as well as comparison of their score to expected (norm) pattern

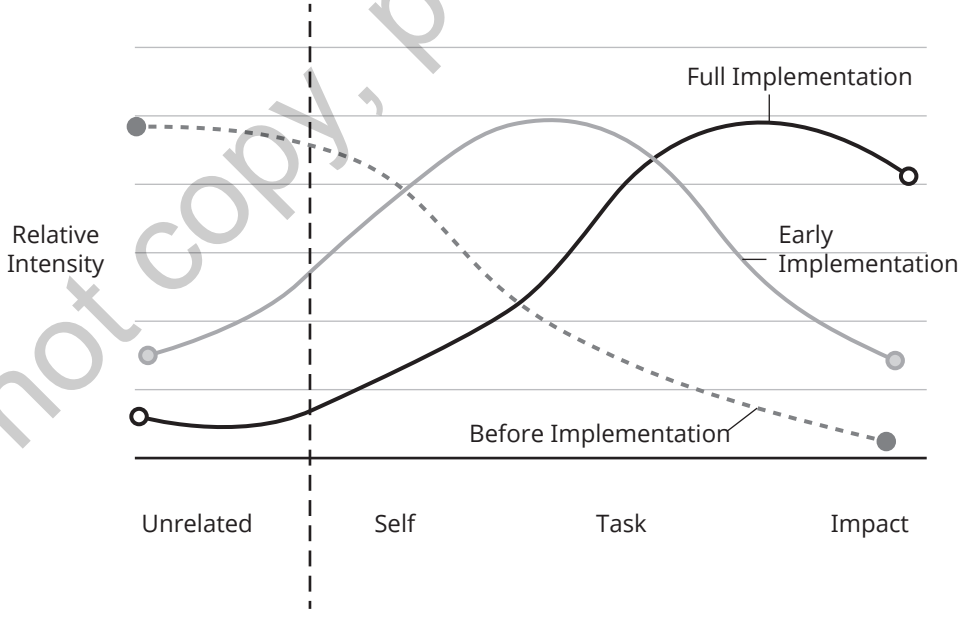
of scores across a typical group (Thurstone, 1922). Percentile-ranked norms facilitate SoCQ users in better interpreting findings in relationship to an expected evolution of Concerns.

Percentile-normed Stage scores are mapped onto a reference graph to present a "profile" of an SoCQ respondent. Stage scores can also be averaged across respondents and mapped as a profile of a group's Concerns. CBAM refers to the typical profile shape as a "wave pattern," designed to present all the Stages at once, in relationship with each other. Figure 2.4 provides an example of the profile graph.

This *ideal* wave motion provides a frame of reference for interpreting concerns. However, it is important to note that the ideal flow of Concerns across these Stages does not always occur; it does not always flow in one direction, and individuals or groups of educators within a school or district may have different concern profiles at any given point in time. In addition, individuals typically have Concerns in more than one Stage at the same time (Hall & Hord, 2015, pp. 88–89). Converting SoC scores for individuals and groups to percentile scores makes it possible to compare how individuals rate their Concerns at each Stage to what is "typical."

Profiles can inform interventions to support implementers. See Hall and Hord (2020), for details on SoCQ scoring and profiles. As Hall states, "We know from research that people will have concerns at several stages at the same time . . . [and] that the 'intensity' of concerns will vary . . . the combination of high, medium, and low intensity stages provides a much richer picture" (Hall, 2023, p. 99). Interpretation can be enhanced with the addition of several open-ended items (Newlove & Hall, 1975; Hall & Lewis, 2024).

FIGURE 2.4 ■ The Ideal "Wave Motion" Development of Stages of Concern



Source: Hall, G. E., & Loucks, S. (1978). Teacher concerns as a basis for facilitating and personalizing staff development. *Teachers College Record*, *80*(1), 36–53.

Note that profiles must also be interpreted with the type of innovation and its context in mind. For example, Figure 2.5 below shows an actual profile from a group in early phases of implementing a new districtwide model of peer feedback. While the wave motion is similar to the one presented in Figure 2.4 for a beginning implementation, we see that Collaboration Concerns are higher than might be expected were the innovation itself not about collaboration.

Profiles of groups are also important to understanding the overall pattern of Stages of Concern regarding implementation of change at a particular site and time. Sometimes there are two or more subgroups of individuals who have similar Concerns that are collectively different from others working with the innovation.

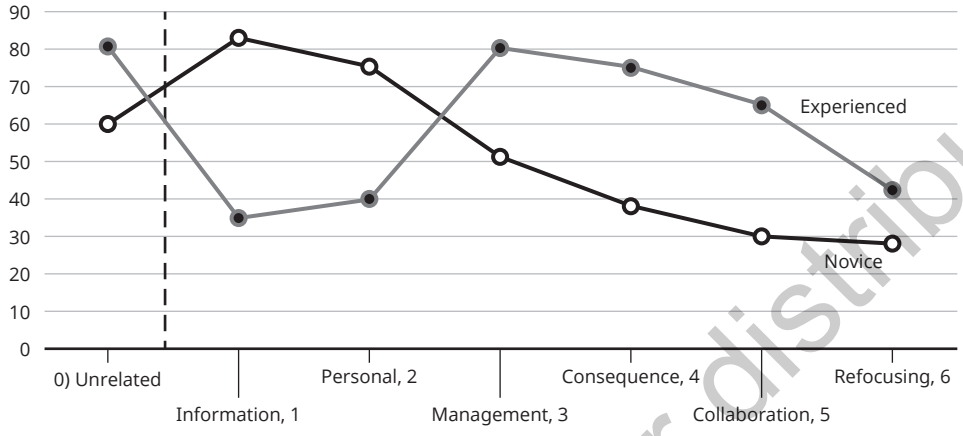
To illustrate, consider Figure 2.6. While the innovation has been in this site the same amount of time for both novice and experienced groups of teachers, it seems that novice teachers are at a much earlier phase of implementation (per the ideal wave profile pattern) than are the experienced teachers. There are many reasons this could be. Experience may mean they are already comfortable with a similar innovation. They may be attending more to Consequence Concerns because their experience teaching has fostered a more intense focus on students under all circumstances.

While the illustration names the subgroups, it is usually not possible to know what is in common among subgroups since the SoCQ is (ideally) administered anonymously. However, when looking at a chart of all the individuals' Stage levels, it is possible to note patterns where one group has high Concerns in a Stage and another group has low Concerns on the same Stage. When a split of subgroups is evident, it is recommended to target interventions and supports that will address *each* group's most intense Concerns and make these available

FIGURE 2.5 ■ Stages of Concern Profile for Teachers Implementing District Review Process

Source: Oxenford O'Brian, J., Seidel, K., Burns, E., Spotts, J.S. (2020). Student Centered Accountability Program (S-CAP) System Support Review Implementation Study Report and Executive Summary and Recommendations [Unpublished report]. Center for Practice Engaged Education Research, University of Colorado Denver.

FIGURE 2.6 ■ Example of a Wave Pattern Profile Differentiated by Subgroups: Novice vs Experienced Teacher



Note: 0 mapped separately; see Figure 2.8.

to *everyone*. While some of these will support different groups, this approach will be helpful to all involved with the change. The wave pattern illustrates this: Everyone has all areas of concern to some extent.

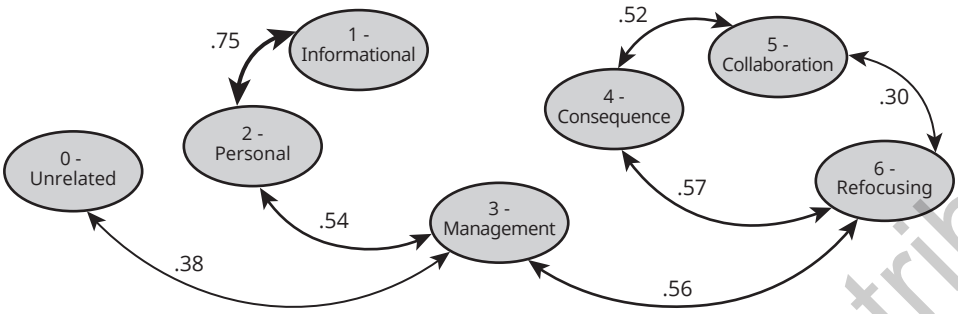
INTERVENTIONS AND SUPPORTS IN RESPONSE TO SoC DATA

Profile wave patterns and Stage scores have associated advice about ways that Change Facilitators can respond through targeted supports and interventions. Attending to the "flow" and interactions among the Stage scores is key to determining ways to responsively facilitate change. The relationships among Stages of Concern can be especially helpful to change leaders as they choose practical, targeted interventions and supports. Stages 1 through 6 interact in interesting ways as those working with an innovation progress in their implementation efforts.

Figure 2.7 presents the strength of relationships among the Stages in a graphic form to help readers get a "mental map" of the interactions. Recent analysis of the correlations, or relationships, among Stages 1 through 6 confirms a general progression of Concerns (Seidel, in press). The numbers by each arrow denote how strong the relationship is, on a scale of 0 to 1. Thus, the strongest connection shown is between Stages 1 and 2, at .75, and the weakest is between Stages 5 and 6, at .30.

Two subgroups align with the overall groupings of Concerns shown in Table 2.1. Self and Task Concerns compose one group. We found that the three Stages of Concern in the Impact group cycle together, with a link back to some Stage 3: Management Concerns. Considering these patterns as well as the overall progression of Stages in individual and group profiles provides many insights about facilitating change through targeted interventions and supports.

FIGURE 2.7 ■ Model of Correlations Among Stages of Concerns



Note: All statistically significant at $p < .01$

Source: Seidel, SoCQ data analysis, used with permission.

The Context of Unrelated Concerns

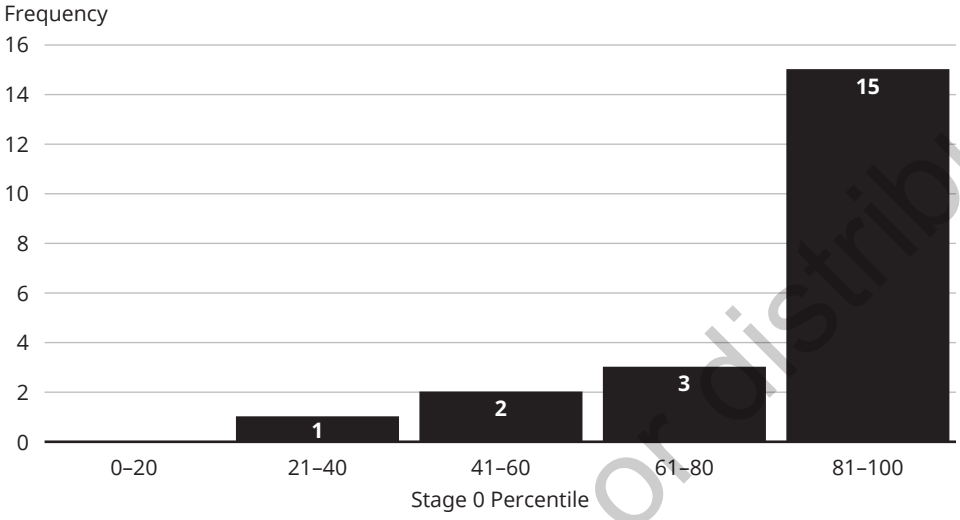
The developers of the SoCQ envisioned there being a Stage 0, representing the level of concerns unrelated to the innovation. Including Stage 0 was intended "to catch folks who didn't want to participate or didn't really have the ability to talk about what you were asking" (author's personal communication with Hall and George, October 2023). The recent validity analyses (Seidel, in press) indicate that Unrelated Concerns stand almost entirely separate from Stages 1 through 6. This supports the idea that the Unrelated Stage represents a lack of awareness of an innovation and/or intense focus on something else. However, the level of Unrelated Concerns is a very important context for interpreting the other Stages. Concerns about areas represented by the other Stages are still operating alongside respondents' Unrelated Concerns (see Hall, 2023, p. 99).

To help with understanding the context of Unrelated concerns for interpreting the wave pattern profile representing Stages 1 through 6, we present a summary of the levels of Unrelated concerns of the respondents within a group in a histogram. An example is provided in Figure 2.8. In the case of individual profiles, the Unrelated level of Concerns should be presented alongside the wave profile but not graphed in connection with the wave pattern. Consider the representation of Unrelated Concerns in Figure 2.7. To a great extent, Unrelated Concerns can be thought of as a context for being able to—or deciding to—engage with an innovation.

In the example in Figure 2.8, it is immediately apparent that the majority of respondents, 71%, are at very high levels of Unrelated Concerns. Change leaders should consider what might be contributing to this. Are implementers involved in other major changes or innovations? Is this innovation not clear to those in the site? Is it seen as unimportant or uninteresting?

When the additional optional question was asked—"Are you currently involved in the first or second year of use of some major innovation or program other than this one?"—those answering yes reported higher Unrelated Concerns. Indeed, it makes sense that commitments other than the innovation at hand will raise Unrelated Concerns scores. Hall and Hord (2020) have found that

FIGURE 2.8 ■ Frequency of Percentile Ranks for Stage 0 Concerns of Reviewers Identifying as Teachers



Source: Oxenford O'Brian, J., Seidel, K., Burns, E., Spotts, J.S. (2020). Student Centered Accountability Program (S-CAP) System Support Review Implementation Study Report and Executive Summary and Recommendations [Unpublished report]. Center for Practice Engaged Education Research, University of Colorado Denver.

> attempting to implement multiple initiatives at the same time can dilute and may impede implementation. It is far better to focus supports and resources on a more limited number of priorities. In other words, "do one thing and do it well." (pp.19–20).

Only once an individual decides—and has the time and resources—to engage with an innovation do they move into more meaningful progression through the other Stages of Concern.

The Early Implementation Cycle of Concerns

The first cycle reflects the evolution of Stages of Concern expected in the early phases of change. Self (Informational and Personal) and Task (Management) Concerns are, in general, related to early efforts as well as to implementers' level of experience. In our recent analyses, these Stages decrease as SoCQ respondents report that they consider themselves "intermediate" or an "old hand" with an innovation. Similarly, we have found that Informational and Personal Stages of Concern were reduced when the SoCQ was capturing data at points later in the implementation process, as an innovation became more established.

Of particular importance to innovation leaders' interventions is that Informational and Personal concerns are strongly interconnected. From a quantitative analysis standpoint, although the SoCQ questions do not separate cleanly into Stage scores, considering each Stage independently will help to interpret the other. We recommend that the most practical guidance will come from scoring and profile mapping them separately while always thinking

about informational and personal interventions in concert. Personal concerns require reassurance in large part through provision of additional information, and concerns for information are grounded in large part in personal concerns.

This is not a new idea; such thinking was part of the Stages of Concern developers' initial work. Frances Fuller's research, foundational to the Concerns Based Adoption Model, noted that the arousal of concerns is affective—that is, personal—and the resolution of concerns largely cognitive—that is, informational (Fuller & Manning, 1973; Newlove & Fuller, 1971). Hall and Hord (2020) suggest that leaders should understand that "all change processes will begin with most everyone having more intense self [Informational and Personal] concerns . . . before implementation, purposeful interventions should be done to address these concerns" (p.119).

Once implementers begin using an innovation, Management Concerns are expected to increase. Management Concerns link with both Personal and Refocusing Concerns. Refocusing Concerns "are about something needing to be different. . . . The true need for the changes may be in question, but the person(s) with intense Refocusing Concerns believe strongly that their view is the right one" (Hall, 2023, p. 66). We also posit that the link of Refocusing to Management Stages may reflect that there is a correlation of Personal Concerns with getting the tasks of the innovation to work in an implementer's own specific context. Implementers may want to make some modifications due to their personal concerns about managing the tasks required by the change. Change leaders should be aware that it is important to consider this aspect of supporting implementers' Personal Concerns, especially for those most novice to an innovation.

Somewhat related is that the Management Stage is the only one to significantly correlate with reducing Stage 0: Unrelated Concerns. As change leaders strive to support the successful implementation of an innovation, it is essential to devise interventions focused on reducing Management Concerns. Given that reducing Management Concerns correlates with reducing Unrelated and Personal Concerns—which are both related to early engagement with the innovation—interventions to reduce Management Concerns should be in place very early and maintained until implementation is relatively stable. Hall and Hord (2020) suggest interventions such as "an on-site implementation coach, a how-to-do-it web site, and a where-to-ask questions source . . . kept in place throughout at least the first year" (p. 119). SoCQ respondents who report having "received formal training regarding the innovation" show reduced Informational, Personal, and Unrelated Concerns. Training seems to alleviate Collaboration Concerns to some extent as well. Change Facilitators should make every effort to use effective formal training to help reduce these areas of concern.

One critique of the SoCQ is that it does not provide insights into how a potential implementer moves from inattention to engagement, meaning a true effort, not just forced response to a mandate (Cheung, 2002). The one significant link we found to the level of Unrelated Concerns was through Management Concerns (Stage 3). Hall (2023) describes Management Concerns, saying,

> All too often we become preoccupied with worries about getting everything done. We imagine that there must be a way to be more efficient. . . . As with other kinds of

> concerns, [management] concerns can be about daily activities as well as major long-term happenings. (p. 47)

Related to this, there is a significant correlation between the level of Unrelated Concerns and whether training was provided on the innovation, as well as how experienced respondents assessed themselves to be with the innovation. Given these connections, it is likely not enough to provide information and personal support to gain attention and commitment to engaging the innovation. Implementers also need (nonjudgmental) ways to learn how to manage the substantive changes to practice—and perhaps beliefs and convictions—that the innovation requires. Support for Management Concerns should also take each implementer's current real and practical contexts into consideration. Implementers don't just need to know how to successfully accomplish change, they must be supported in figuring out how to make the changes fit into what they currently do.

Impact Concerns in Later Stages of Implementation

The second subgroup of Stages is a cycle among Stages 4, 5, and 6 (see Figure 2.7). These three Stages are grouped as Impact Concerns, which are about

> what is happening with the innovation user's 'clients,' not one's self. With teachers, the clients are students. With leaders the clients will be their staff. The major theme in impact concerns is thinking about what could be done to increase outcomes. (Hall & Hord, 2020, p. 108)

We find that Management Concerns decrease sequentially as SoCQ respondents report they are moving from "novice" to "intermediate" to "old hand" levels of expertise. At the same time, as respondents report more experience with an innovation and/or as an innovation becomes more established in a site, concerns about Consequence, Collaboration, and Refocusing (the Stages comprising Impact Concerns) increase. Impact Concerns typically increase when an implementer has established the innovation well enough to be able to attend to its effects on the clients. Concerns about improving effects of the innovation through personal and collaborative adjustments can increase once the basic tasks of the innovation are manageable.

We found one potentially important nuance within the Consequence–Collaboration–Refocusing cycle that may reflect how implementers think about their clients. Various items throughout the SoCQ that ask respondents about their concerns for clients' experiences with an innovation also relate to the Collaboration Stage. This suggests that in addition to colleagues, some implementers view their clients as collaborators in their work with an innovation.

Change leaders should benefit from these two observations when seeking to reduce the group of Impact Concerns. First, since clients' experience influences many implementers' Collaboration Concerns, interventions that support explicit connections with clients as part of the innovation work may help reduce Collaboration as well as Consequence Concerns. Second, in devising practical interventions to support change, it is important to realize that Refocusing and Collaboration Stages relate to concerns about *both* individual and

collaborative paths to addressing concerns about Management tasks that might improve the impact of the innovation. Interventions to reduce Collaboration and Refocusing Concerns should be related to each other but will also require supports specific to the concerns and needs that each Stage represents.

CAUTIONS ABOUT POTENTIAL MISUSE AND MISPERCEPTIONS

There are several areas of possible misunderstandings of the Stages of Concern concepts, methods, and evidence tools. We've grouped them here as those related to collecting evidence and those related to interpreting findings.

Gathering Evidence

For SoC to inform leadership and study of change efforts, the right evidence about concerns should be gathered from the right people, at strategic times, and in appropriate ways.

Not Addressing Change Facilitator Concerns

It may seem that the concerns of those individuals implementing an innovation are most important to successful change, but leaders should remember that "Facilitating change is a team effort . . . [and] while principal leadership is critical to implementing innovation, so is the involvement of other school staff" (Hall & Hord, 2015, p. 16). Change Facilitators—those most directly coaching and supporting implementers—also have Concerns about the innovation and their roles. Not attending to Change Facilitators' Stages of Concern in some fashion—whether SoCQ, OLI, or OECS methods—neglects individuals who are essential to successful implementation of an innovation.

Anonymity and Confidentiality

Administering the SoCQ to any group of fewer than five individuals can compromise anonymity, as can responses to the open-ended SoCQ question. Similarly, there are often few Change Facilitators. When administering the SoCQ, leaders must take care to build trust that confidentiality will be maintained and that results will be used in a formative and not evaluative way.

The biggest issue related to potential misuses of the One-Legged Interview is that the interviewer knows who provided the data. It is important to assure those interviewed that the conversation is about the implementation of the innovation and not about the individual—except regarding how better to support the person in their learning and change efforts. Don't put people on the spot in awkward or public moments. Be sure to cast the net wide and fairly among the whole group to avoid both the impression of bias and biasing your data. Know also that people may be less than forthcoming or honest in these situations unless you establish trust in your commitment to supporting, not punishing.

While the Open-Ended Concerns Statements method is ideally anonymous, there may also be issues related to respondents who may be worried about being identified. If written responses are requested—such as on index cards circulated at a meeting—handwriting may make respondents obvious. As with the One-Legged Interviews, this method will be most

effective with established trust. In all cases, leaders should presume positive intentions when reviewing input from both methods, focusing on what insights they provide about progress and how to better support it.

Observations and Interviews

In addition to the temptation to remove or regroup the SoCQ items and/or Stages, researchers sometimes adapt SoCQ items into interview questions or observation protocols. Using the SoCQ questions for interviews is problematic because the goal of using a questionnaire is to gather information structured in the same way for all respondents. This makes it possible to understand different respondents' Stages of Concern in ways that allow for the creation and interpretation of reliable and comparable individual and group profiles. Interviews serve a different purpose, attempting to gather more detailed and personal information from individuals. The One-Legged Interview and Open-Ended Concerns Statement methods are the established approaches to collecting and interpreting information from individuals; SoC users should follow the manuals designed specifically for these data collection approaches.

It is never appropriate to use observations to infer latent concern constructs. Beliefs, feelings, and intentions do not align well with behaviors, and observations of these personal, internal factors are prone to extreme bias. For gathering information about behaviors, use the CBAM Levels of Use observation protocol.

Maintaining the Current Five Items per Scale

Because each Stage construct is defined and then measured as a *latent* construct, each Questionnaire item is part of the group of five items that *together* capture the unseen construct. As such, each item only captures part of its Stage of Concerns idea. No single item represents the full construct or Concerns Stage and therefore doesn't provide enough data about the construct to be as valid and reliable as data from the whole set of five items. Thus, it is important not to remove items from the Questionnaire or the calculation of Stage scores.

Some past research articles have critiqued the SoCQ, suggesting that a few items might be removed and/or that Informational and Personal Stages of Concern could be combined. Our recent large-scale analysis (Seidel, in press) found that while removing one or two items in some Stages might be possible, removing items reduces the reliability of the information gathered, in addition to creating misalignment with 50 years of prior SoCQ use in research and practice.

Merging Informational and Personal Scales

Informational and Personal Stages of Concern do interact but scoring them as separate constructs and interpreting them together provides much more insight to researchers and leaders than would be gleaned from combining the ten items. For appropriate use, all Stages should remain in the SoCQ, which has been in place for the last 50 years.

Interpreting Evidence

It can be tempting for both practitioners and researchers to focus too much on one aspect of the evidence provided by Stages of Concern instruments. Here are some of the most common missteps.

Making Overly Negative Inferences

The most common misperceptions we see among those interpreting SoCQ profiles relate to making overly negative inferences. We discussed assumptions about Stage 0: Unrelated Concerns above. Similarly, response profiles that show high Stage 6: Refocusing Concerns must be examined broadly. There are many reasons that those in a site are thinking of new or modified ways of working with an innovation, and not all are negative or indicate resistance to change.

Another common confusion can arise from not considering individuals' profiles in relationship to group profiles. It is not uncommon for individuals to share that they have relatively low levels of Concerns across all of the Stages. Sometimes this is because an individual rates everything higher or lower as a matter of personal preference. Some survey respondents are reluctant to ever select the highest and/or lowest response choices on a survey, but they are reflecting their choices relative to other choices in a valid fashion. Looking at the wave pattern overall is helpful in such scenarios. For example, while a consistently low or high pattern related to the group may just indicate respondent preferences for low or high scoring, finding one Stage that is obviously different in a pattern may indicate that more exploration of those Concerns is needed.

In all cases of interpreting Stages of Concern evidence, the best results will come from involving both Change Facilitators and implementers in discussion of what the information means and what interventions and supports will be most helpful.

Focus on Single/Limited Stages

We caution against interpreting or focusing solely on one or a limited number of Stages of Concern without also considering the others. The SoCQ is designed to measure Stages, not just the concerns represented by each Stage construct. The Stages are interconnected; individuals experience concerns to some extent in every Stage simultaneously. It is only through the collective interpretation that one can understand important nuances about how a given SoC profile should inform Change Facilitator and/or leadership action.

USE OF STAGES OF CONCERN FOR FACILITATING CHANGE

The Stages of Concern concepts and tools can help leaders and others involved with implementing change understand how to focus their work as the innovation progresses. The Stages of Concern Questionnaire collects evidence about concerns in a structured way, enabling profiles of Concerns for individuals and groups, comparable with each other and over time as implementation progresses. The One-Legged Interview enables change leaders to gather informal check-in data from individuals to use as formative feedback for implementation efforts. The Open-Ended Concerns Statements are a quick way to gather a broader range of feedback from Change Facilitators and implementers at key points in the implementation.

Those interpreting evidence about Stages of Concern gathered through any of the three methods discussed in this chapter must be careful not to ascribe overly negative inferences to what they hear from those involved with the innovation. Concerns may or may not be due to negative causes, but they are always in need of targeted responses. Looking at wave pattern profiles of individuals and groups (potentially including subgroups) across the Stages will provide nuanced understanding about how to devise interventions and supports that are most needed

at a particular point in implementation. Concerns will evolve as implementation evolves, and interventions and supports should be modified to accommodate changing concerns.

We cannot emphasize enough that transparency and trust-building are the foundations of the successful implementation of change. Whether a mandated or self-selected innovation, leaders must intentionally foster a dialogue to effectively respond to the concerns of both Change Facilitators and implementers. Advice as to how to think about responding to Stages of Concerns evidence was discussed to help guide leaders, Change Facilitators, and implementers in targeting ways to move an innovation forward in a positive way. SoC information should serve both leaders and implementers in self-assessment and reflection of personal progress in change as well as developing more structured organizational interventions. Working together in a transparent and trusting fashion, those working to learn how to implement an innovation and change their personal practices can benefit from understanding the Stages of Concern.

HOW TO USE STAGES OF CONCERN IN RESEARCH, IMPLEMENTATION STUDIES, AND PROGRAM EVALUATION

To help ensure appropriately gathering and interpreting Stages of Concern evidence in a valid and reliable manner, we have discussed above the importance of research–practice partnerships. Such collaboration provides the researcher with the context of the implementation site and those working to master the innovation and instills confidence in the researchers. To reiterate as well, Stages of Concern studies should *never* be evaluative in nature. The Stages of Concern concepts and evidence tools are meant to collect information about those implementing to target the supports and interventions they need to succeed. For this reason, *program evaluation* refers to aspects of successful implementation. Implementation research and program evaluation are closely connected. Before attributing any positive impacts or detrimental effects to a program, one must have confidence that the program is actually in practice. Programs or innovations have impacts on clients but also on those implementing the change. For implementers and Change Facilitators, program-related impacts start early and continue throughout the life of the innovation.

Whether researchers or practitioners, anyone who has trained on the valid use of the SoC tools will be a resource to those working to bring an innovation to their site. As an expert in the methods, it is essential for those leading the gathering and interpretation of SoC evidence to follow the processes discussed previously and in the detailed manuals that discuss using each of the tools. Researchers have an important responsibility to ensure the validity and reliability of SoC findings and to be transparent with their practice site partners.

DISCUSSION QUESTIONS

Learning Objective 2.1:

Consider a change that is happening in your school, district, or community. How would you describe it as an *innovation* specific enough so that all of those responding to an SoCQ would understand it the same way? What aspects of your description are needed to potentially accommodate different respondents' views or likely assumptions?

Consider a new learning or change experience that your group has in common—maybe the degree, a capstone experience, a particular class, or new processes. What concerns do you each have? Without taking the SoCQ, how would you rate your levels of concern for each of the Stage constructs? Why?

Learning Objective 2.2:
Think of an innovation or major change at your place of work. At what point(s) in the implementation of the change process would you use the Stages of Concern Questionnaire? The One-Legged Interview? The Open-Ended Concerns Statements method?

What types of evidence about implementation would you gain from each of the three methods? How could these inform your planning?

Learning Objective 2.3:
Identify an innovation that is common to your group. Set up a trial account with the AIR site. Look at your group profile, and discuss what it may mean for your group. How might this inform those leading the implementation of your shared innovation? How would you personally respond, reflecting on the profile as an implementer?

Learning Objective 2.4:
Where else do you encounter percentile rank scoring? Where else do you see normed scoring?

Looking at the ideal "wave pattern" presented in Figure 1.5. What sorts of change leadership interventions and supports would you focus on for a group when you're introducing an innovation? When the group is in early implementation? When they are in full implementation?

Thinking again of a change that is happening in your school, district, or community. What are some reasons you can think of that might contribute to individuals having high Stage 0: Unrelated Concerns? Can you identify some that you might construe as positive as well as negative? How might you address these?

Learning Objective 2.5:
Why is it important to address change facilitator concerns as well as implementers concerns? Would you plan to gather data—SoCQ, OLI, and/or OECS—from both groups at the same time? In the same way? What would be different?

In cases where you can't guarantee anonymity, such as small groups taking the SoCQ or OECS or when you conduct OLIs, how would you ensure honest and helpful information is gathered? How would you ensure that Stages of Concern evidence is never used in an evaluative fashion?

LEARNING MORE

The 50-year review of the SoCQ is a large project. A comprehensive overview of the SoCQ is presented here, but it is essential that readers consult the official manuals about the SoCQ and its use. Regular updates to the training and use manuals are also conducted as evidence and

contexts of use may warrant; these can be accessed in both formal publications and through the C-PEER website (Center for Practice Engaged Education Research, 2024). Also, at the C-PEER site, readers can find an up-to-date reference list of approximately 600 publications about projects using Stages of Concern evidence tools (and other CBAM methods), gathered from peer-reviewed journals, dissertations and theses, conference proceedings, and practitioner-oriented publications. Many of these publications are also archived there for easy access.

Readers can experiment with using the Stages of Concern Questionnaire at the American Institutes of Research website by creating a free trial account. For those using this text in a course or professional learning, consider administering and scoring the SoCQ with other participants for discussion. The innovation of focus might be the course, a textbook, the degree program, or other new program or change in common.

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