



Schools of the Future Year 5 Evaluation Report

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Introduction

The Schools of the Future Initiative

The Schools of the Future (SOTF) initiative was funded by the Hawaii Community Foundation (HCF) to promote the teaching and learning of 21st century skills in participating private schools. Eighteen five-year grants to private schools (including two partnerships representing four schools) were awarded in 2009. For a variety of reasons (e.g., school closings, perceived lack of fit, implementation capacity), several of the original grants ended before the fifth grant year. In 2013–14, 14 of the original 18 school grantees completed the five-year grant period.

At the initiative level, the Hawaiian Association of Independent Schools (HAIS), through a contract with the Hawaii Community Foundation, supported SOTF schools by working individually with them, providing opportunities to network with and learn from one another, and bringing learning opportunities to the schools through communities of learners (CoLs) sessions.

The SOTF initiative has three key components that schools have adapted to meet their needs and the needs of their students: 21st century skills (i.e., creativity, critical thinking, collaboration, communication), technology, and professional learning communities (PLCs).

The key component of the SOTF initiative is the incorporation of 21st century skills into student learning activities. This component emphasizes student skills developed through learning activities and places these skills at the heart of instruction. A skills-based focus requires teachers to be the facilitators of learning and places less emphasis on the teacher as the deliverer of content related to a specific discipline. The skills-based emphasis also requires students to be actively engaged in their learning—identifying areas of interest, researching, analyzing, collaborating, applying knowledge, and presenting the results of their work. This report refers to the skills-based emphasis as *student-centered learning*, an approach that incorporates the teacher role as a facilitator of active learning among students (rather than as a lecturer) and the student role as an active learner. Originally, HCF and HAIS emphasized one student-centered learning methodology: project-based learning. In the summer of 2009, HCF took representatives from the participating schools to High Tech High in San Diego to observe and learn about its whole-school approach to project-based learning. The project-based learning approach was the initial focus of many of the participating schools. However, student-centered learning among the SOTF schools has since included other models and strategies, such as problem-based learning, inquiry-based learning, experiential learning, cooperative learning, and flipped classrooms.

Another key component of the SOTF initiative has been the use of technology to support instruction and learning. Technology integration among the participating schools has not been static, in part because of the development of new devices (particularly the iPad) and applications. Numerous SOTF grantees prepared for wide technology use by expanding their technological infrastructure (e.g., increasing broadband width, Wi-Fi access points), buying hardware (laptop, Promethean boards, iPads, iPods), and developing the capacity of staff to effectively use technology for communication, instruction, and learning. HCF and HAIS emphasized technology integration when, in the summer of 2010, they conducted a field trip of school representatives to the national conference of the International Society for Technology in Education (ISTE).

The third component of the initiative was the development of PLCs in the participating schools to create more open communication within the schools and facilitate teacher sharing, learning, and collaboration. The PLCs were introduced using the tuning protocol developed by the National School Reform Faculty (NSRF). Guided by the protocol, an educator engages in a structured, focused session to get feedback from colleagues about a planned activity and its alignment with goals. HCF representatives had observed the tuning protocol during the site visit to High Tech High in 2009 and had introduced it to SOTF participants at one of the first CoLs sponsored by HCF and HAIS. Numerous schools used the tuning protocol, as well as other NSRF protocols, typically adapting them or using different PLC agendas (e.g., book discussions, analysis of student work, sharing out effective strategies) in later project years.

SOTF projects mixed and emphasized these three components—student-centered learning, technology integration, and PLCs—in different ways. At the school level, the focus on components varied to accommodate the school’s needs and orientation. For example, several of the participating schools had already incorporated student-centered learning in their school visions and missions but only minimally used technology. Several of the schools had a relatively strong technology base but had only limited opportunities for teacher collaboration that would connect the classrooms and grade levels in their school. Some schools had relatively closed communication and had created few opportunities for teacher collaboration. Other ways schools differed were related to the following:

- **Existing education model.** Some of the SOTFs were traditional schools and had delivered content-focused, teacher-centered instruction for years, if not decades. This was particularly the case for church-affiliated private schools and highly successful college preparatory schools. Other schools had a curricular model (e.g., International Baccalaureate [IB], Montessori, constructivist, skills based) that was student centered and guided by affiliates. The existing education model, before participation in SOTF, determined whether a school aimed to move in a different direction or strengthen an existing model.
- **School size.** In 2009, the number of students in individual SOTFs varied from fewer than 100 to more than 1,000. Similarly, the grade levels varied and included schools that served only elementary grades; elementary and middle school grades; and elementary, middle, and high school grades. School size and number of grade levels served influenced implementation to a great extent. For example, a large prekindergarten or K–12 school tended to focus on an initial grade level or department and expand out from there. Among the small schools, however, there were more opportunities for promoting change in all or most of the grade levels.
- **School history.** The SOTF initiative included schools that were well established and had a long history (with a solid student and funding base) and schools that had operated for five or fewer years at the time they received the grant. School history was a factor, for example, in long-standing schools that had met expectations and for which change might be perceived as fixing something that did not need to be fixed. In such schools, staff, parents, and board members were harder to persuade that change was necessary.
- **School resources.** The participating schools included those with well-resourced buildings and campuses (e.g., new buildings, up-to-date technology) and high tuition rates as well as schools that had far fewer resources and relatively low tuition rates. For example, one

of the highest tuition schools in the state participated in the SOTF initiative, as did several under-resourced parochial schools.

Schools of the Future Final Report

American Institutes for Research (AIR) conducted the evaluation of the SOTF initiative. AIR's affiliate, Learning Point Associates, was the original contracted evaluator before it merged with AIR in January 2011. The evaluation was designed to describe the differences among the SOTF schools and their individual project designs; assess the maturation of the SOTFs; and provide the client with useful information. The evaluation does not include an outcome component—that is, an assessment of changes in student achievement—because of the limited availability of student achievement data used across the initiative.

Two primary objectives and related research questions guided the Year 5 evaluation. The first objective was to describe the impact of SOTF on participating schools. The corresponding research questions were the following:

1. To what extent and in what ways has participation in the SOTF initiative changed instructional practices among teachers in the participating schools?
2. To what extent and in what ways has participation in the SOTF initiative changed the learning environments of the participating schools?

The second objective was to describe the implementation practices that distinguished high-performing schools. The corresponding research questions were the following:

1. How do high-performing and low-performing schools differ in their leadership approaches?
2. How do high-performing and low-performing schools differ in their approaches to developing knowledge and skills?
3. What challenges have schools encountered in implementing the SOTF initiative, and how did the schools overcome or not overcome those challenges?

The Year 5 evaluation activities had two distinct phases. The first phase focused on the first and second research questions and assessed the extent to which instruction and learning environments had changed in the participating schools. The first phase also described the indicators of change and the practices and decisions that supported change. The first phase of the study resulted in the Interim Report (December 2013), which summarized information from 67 interviews conducted in all of the schools (April 2013) that participated in the SOTF initiative. Section 1 of this Final Report briefly presents the findings of the Interim Report.

The second phase of the Year 5 evaluation activities explored implementation in more depth and detail among a select group of high-performing schools, identified through analysis of 2013 interview data and discussions with HCF. Interviews were conducted with administrators and project coordinators (and in some cases SOTF team members) in five schools. In 2013, indicators showed that these schools had all made moderate to high degrees of change in both instruction and technology use; the schools also reported a high degree of change in the school learning environment.

Among the five schools, three were particularly strong in terms of implementation because of the sustained leadership support, the strong role of project coordinators, and the structures and supports available to teachers. In these schools, there were far-reaching changes associated with pedagogy, reportedly throughout the school and not only in pockets, departments, or single grade levels. Each of the three schools implemented schoolwide strategies that conveyed the SOTF vision of 21st century learning. Eleven interviews were conducted in February 2014. Thus, in 2014, respondents in five high-performing schools provided insights into change strategies. Interviews in those schools focused on the roles of project coordinators and school leaders, effective strategies, school benefits resulting from participation, and challenges encountered by the schools.

Analysis Plan

The AIR team analyzed the interview data to identify the roles and strategies of the high-performing schools and to present those strategies within a change model framework. The team highlighted illustrative quotations and examples during the analysis. A goal of the analysis was to identify the strategies that might be replicated or modified to accomplish the intended change.

The analysis team initially read the transcripts in their entirety; the team became familiar with the content of the interviews and aware of and sensitized to themes and potential patterns. Then the team summarized the data by topic across respondents. Throughout the analysis of the interview data, the analysts repeatedly referred to the original transcripts, checking on and confirming that evidence aligned with the patterns and themes identified in the analysis.

A change model guided the analysis of the 2014 interviews, describing change as a process and including leadership and knowledge development elements relevant to the SOTF initiative and that help sort the strategies into a process of change, rather than a list of change strategies. Section 3 describes the change model and presents implementation strategies.

The remaining sections of this report address three topics. The first section describes the role of HCF and HAIS in guiding the initiative. The second section summarizes the findings from the 2013 Interim Report on school change in instruction and learning environments. The third section presents the change model and, within this model, the strategies the respondents in the five high-performing schools described.

Section 1. Guiding the Initiative

Throughout the five-year evaluation of the SOTF initiative, interview respondents described how HAIS and HCF defined and supported the implementation of the SOTF initiative. Respondents who were interviewed in 2014, just several months before the grant ended, said that as they looked back on their participation and at the changes that occurred in their school, they recognized the benefits of the grant lasting five years. They mentioned the need to adapt the program to align with their school's culture and orientation and the quarterly CoL meetings that brought grantees together.

Five-Year Grant Tenure

Respondents from each of the five high-performing schools said that the SOTF being a five-year grant, rather than the more typical three, was essential to implementation. In one school, a respondent said, "I think it was really helpful to have it as a five-year initiative. I think if it was a three-year initiative, it wouldn't have worked out so well. I think we would have gotten to the end of the three years and really hadn't found our place." The respondent added that because the school had five years, the changes that took place were driven more by the school than "the Schools of the Future people." Several respondents from different schools said that they were better able to define their SOTF goals after one or two years of participation in the initiative. A respondent from one of the schools said, "It took us a couple of years to just find and discover what we were even trying to do and what they wanted us to do." Another respondent said:

We were lost, really, at the beginning: "What is this grant? What do they want from us?" . . . Sometimes it was hard to really find a focus. Then we came up with those two ideas that we were going to learn how to use technology to do our 21st century practices better, and we were going to develop structures for continued growth. Those two things really gave us a clear focus in our grant, and that is going to take us forward even after the grant.

A respondent from another school said, "I'm so glad this was a five-year because we are in a way different place than we were even at three years." In yet another school, an administrator said that the five-year tenure contributed to the success of the SOTF initiative in the school:

It has been successful because we knew it would be a five-year journey, and we could set benchmarks along the way. It's not something that is going to happen overnight. It takes a lot of concerted effort and returning periodically for reflection and evaluation and redesigning a course of action if necessary. But knowing that it's a five-year plan and having benchmarks along the way helps to direct and refocus.

Discretion to Adapt

All of the 2014 interview respondents said that schools had the discretion to design their program to suit their school. This discretion was another advantage associated with the initiative. Several respondents pointed out that HAIS and HCF articulated a vision and brought in speakers who addressed the broad need for a shift in education. As a respondent said, "The goal was clear but yet we could individualize all the grant goals at our school, which was great. . . . We are all very different schools. And we have different school cultures. If we had to do it all the same way, I

just don't think it would be effective." Another respondent said, "Every school is very different. If on a national level or a state level—even a district level—if someone were to come in and say 'do this, this, and this'—in any organization, that's challenging for it to come top down."

Another reason several respondents valued the discretion HCF allowed was that the school administrators supported instructional change by granting teachers flexibility. All of the schools decided to implement the program using an early adopters model in which some of the teachers decided early on to try new methodologies. The intention was that gradually early adopters would model new strategies, discuss them, and support other teachers. Administrators in the schools noted that the early adopters model suited the experience and capacity of their teachers as well as their tolerance for change. One of the project coordinators referred to the early adopters model as the teacher's "point of entry," and several 2014 interview respondents said that teachers' point of entry and tolerance for change were important to consider so that teachers would be willing to try new strategies and learn new methods. Because the grantee agency did not force specific objectives on the participating schools, the schools not only had discretion but also could allow their teachers a safe environment in which to try new strategies and methods. Several respondents also said that the flexibility granted to teachers reflected their school's approach to student learning: allowing students to have a choice in their learning.

One of the respondents said that if the grant had been overly prescriptive, schools would have been limited. A respondent said, "It would tie the hands of creativity. It would tie the hands of critical thinking. It would tie the hands of a teacher and a student to go beyond. I think that when you have too much oversight, you stifle creativity and growth." The respondent and others said the only problem in allowing grantees discretion occurs "when you don't have the momentum or that tipping point in a faculty that allows [a school] to grow."

Within the context of schools having the discretion to design their own grant, respondents mentioned the importance of accountability in relation to the grant and said that HCF requiring grantees to develop annual plans and benchmarks that measure progress toward goals established accountability. An administrator said,

I really appreciate the way the Schools of the Future initiative was structured in its entirety—that the onset was a five-year journey. And we had to articulate the goals that we wanted by the end of the five-year journey and then break those down each year into what we were going to accomplish that year to reach the goal.

Communities of Learners

A key role of HCF and HAIS was to foster cross-school communication and learning through the quarterly CoL sessions. The sessions brought together representatives from all participating schools for professional development and networking. The exposure to other schools was cited as extremely important by many of the SOTF interview respondents (and again, acknowledged in surveys conducted in 2010, 2011, 2012, and 2013). The world of independent schools is diverse, and, as a respondent pointed out, it is rare for an educator from a small school with a relatively low tuition to come into professional contact with an educator from a large, prestigious, high-tuition school. The CoLs were professional learning opportunities, and HAIS frequently brought in speakers and trainers who demonstrated approaches for PLCs, technology, and pedagogical methods. Although participants valued these, in spring 2014, the interview respondents referred

to the CoLs mainly as opportunities for bringing schools together and providing them with opportunities to learn from one another. A respondent said:

We met every quarter with the other schools and talked about change. [Phil Bossert from HAIS] had guest speakers come in. But we also got time to just network with the other schools in the grant and talk about how it's going and learn from each other. All the other schools have been very supportive of everything we all do. They've all been willing to share, as we have, so that has really elevated change.

Another project coordinator said the CoLs provided momentum and supported school engagement in the SOTF initiative, adding, "Doing this through a community of schools going through the change process at the same time has been pretty valuable—meeting with those other teachers and bouncing ideas around has been useful." Yet another project coordinator said:

That's how I think every project coordinator is getting their information and the drive of why they are doing this. When we meet together—either face-to-face or online—I think it gives everybody just that reassurance that they're on the right track, and they are doing what they are supposed to be doing, and they have that colleague there as support.

Several respondents said bringing teachers to the CoLs showed the teachers that their school is not alone in its efforts to change its educational model. A project coordinator said, "Every single time we would go to a Community of Learners meeting—and I would take different team members and different teachers—they would come away saying, 'I didn't know that everyone is on this path.'" Similarly, another respondent said that the CoLs have given teachers a different perspective about education and exposed participants to what other schools are doing. "It helped us feel confident," the respondent said; because of the exposure to educators from different schools, "We can say we are all moving together."

According to the 2014 respondents, learning from other educators at the CoLs has resulted in expanded networking with other schools. A project coordinator noted how the CoLs resulted in visits to other schools, saying:

When I go to the meetings, I'm networking with other schools. I have already arranged a site visit with another school. They're going to come over to our school, and they want to learn more about how we use iPads in the classroom. I think that connection is there. It's no longer "my school competing against your school," but now it's more of a partnership. That's been very helpful, I think. It's probably one of the most useful things.

The 2014 interview respondents mentioned other ways HCF and HAIS have managed the grant. The approaches are closely aligned with the three general initiative supports (having a five-year grant, allowing grantees discretion, and bringing grantees together). They include the following:

- **Articulating a vision.** HCF and HAIS provided a vision of the SOTFs through presentations of nationally known speakers (Tony Wagner, Sir Ken Richardson), field trips to High Tech High and the ISTE conference, and recommended readings and websites. A major accomplishment and boost for the initiative was the annual SOTF conference, sponsored by HCF, beginning in 2011. The SOTF conference featured nationally known keynote speakers and provided a showcase for SOTF teachers to demonstrate their successful student-centered pedagogies and to learn from one another.

The conference also linked the SOTF initiative to other educational institutions, such as the Hawaii Department of Education and the Kamehameha School Trust. Over 1,000 educators attended each of the SOTF conferences. A number of the SOTFs closed their schools so that all of their teachers could attend the conference.

- **Providing a starting point.** At the initiative level, HCF and HAIS provided the participating schools with specific models—notably project-based learning and the National School Reform Faculty protocols (project tuning) as a starting point for schools. The trip to ISTE at the beginning of the second grant year also exposed teachers to a wide variety of technology applications and uses.
- **Providing ongoing support.** HAIS provided ongoing technical assistance to schools and worked with them as they refined their objectives and implementation plans. A project coordinator said, “I felt so supported by the whole effort. . . . I think that was part of the niceness of being involved in this. They were so kind and so patient with everything. . . . It wasn’t some anonymous grant organization. They really got to know and connect with us.”

In sum, HCF and HAIS directed the SOTF initiative while allowing adaptation and change. Initially, HCF and HAIS provided a vision of change and exposed the grantees to different structured models. Then, as the initiative continued, grantees (particularly the high-performing grantees) articulated a more defined program model in their schools and selected instructional models, technology uses, and PLC formats that worked for their schools. Most important, the participating schools became a network of schools that learned from one another during the CoLs and through the opportunities individual schools scheduled in between the quarterly CoL sessions.

Section 2. The Impact of SOTF on Participating Schools

Section 2 of the Year 5 Report addresses the first research objective: the changes in the instructional practices and learning environments resulting from school participation in the SOTF initiative. The Interim Report (December 2013) addressed the first research objective. The report was based on 67 interviews of administrators, project coordinators, and teachers (identified as early adopters) in 13 schools. All of the schools were represented in the Interim Report, and this section summarizes its key findings, adding additional information from the 2014 interviews.

Change in Instruction

The change in instruction considers student-centered learning methodologies as well as using technology to support instruction and student-centered learning. In earlier evaluation reports, including the 2013 Interim Report, these two components of the SOTF initiative were considered separately. However, interviews with school leaders, project coordinators, and, in 2013, teachers show that increasingly the components have merged. Schools have modified instructional methodologies to take advantage of technology and have used technology to facilitate student-centered learning. The 2013 and 2014 interview respondents frequently mentioned using technology as a tool to facilitate instruction and learning and not as an independent focus. One of the project coordinators (2013) said the school moved from its initial “cool tech” approach to a learning objectives approach. Another project coordinator (2014) said the school considers technology to be a means to enhance learning and teachers must adapt their instructional methods when they use technology. The project coordinator said, “We have a lot of our curriculum now based and mapped integrating technology in really good ways. I can’t see going back and losing that. That wouldn’t happen. A lot of classes have been entirely redesigned for this,” adding that initially teachers considered, “How can I use this tool in class?” And now the question is, “How can this tool help with critical thinking?”

The instructional changes reported in 2013 and the 2014 interviews show that student-centered learning methods have gone beyond the initial focus on project-based learning (although this is still a well-represented methodology). A respondent (2014) said:

We had a major focus on project-based learning, and then we realized that project-based learning is a vehicle to help us, to help our students, to help us with high-order thinking skills, critical thinking, problem solving. . . . Those high-order thinking skills can be developed through other ways besides project-based learning as well.

Numerous instructional changes respondents in different schools mentioned included project-based learning, cooperative learning, presentations of learning, inquiry-based learning, skills-based report cards, flipped classrooms, and community-based learning.

Assessments of Instructional Change

Instructional change was assessed as high in schools where the use of both instructional methodologies and technology changed markedly, according to 2013 interview respondents. Interview respondents described the change as school wide, even though some teachers had

made more substantial changes than others. In some cases, the implementation plan focused on one grade level (e.g., high school) before another; thus, technology use and student-centered instructional methodologies were more established in some grade levels than others.

Other schools made moderate changes. In these schools the curriculum was already student-centered and skills-based. In these schools the curriculum was supported by, though not changed by, more extensive use of educational technology throughout the schools.

Mixed change was evident in some schools. There was change in pockets—within departments or in certain grade levels (e.g., in elementary more than in secondary classes).

Low or limited change was evident in one of the SOTFs. Reportedly, some of the teachers experimented with new methodologies and uses of technology, but these efforts did not cohere within a set of grade levels (e.g., elementary or middle school grades) or subject areas.

Indicators of Instructional Change in 2014

The 2014 interviews did not ask for specific examples of changes—in part because respondents provided examples in 2013, and gathering examples was not a focus of the 2014 interviews. Nevertheless, the 2014 interview respondents referred to instructional changes when they described the benefits of participating in the SOTF initiative. This subsection presents these comments because they provide some direction on where to look for (and perhaps where to direct) change. Respondents from the high performing schools described the following indicators of effective implementation:

- **Teachers understood the importance of learning skills rather than only content as instructional goals.** A respondent said, “The biggest benefit has been in changing our teacher’s minds about the importance of skills versus content and emphasizing—which ties into the emphasis on applied knowledge.”
- **Teachers used more diverse pedagogies.** A respondent said the SOTF initiative has “really opened the eyes of people to different ways of teaching—their pedagogies. It not only opened their eyes to this but to how students can learn better . . . how to enhance learning and make it more of a real experience for students. . . . When you go into these presentations of learning and the students share what they’ve learned, you see that it’s way more than they ever would’ve learned had they just sat in a class at a lecture.”
- **New methods and use of technology allowed students different learning experiences.** A respondent said, “I mean, going into the fifth-grade classroom and seeing these kids on Skype, live with a park ranger in Canada and the questions they’re generating and the conversation they’re having and the seriousness of the kids and how real it is for them and they’re learning. I can’t imagine that coming from getting on the Internet and making a poster about the tundra or whatever it is up there.” Another respondent said, “We would never go back and not have a one-to-one [iPad] program”
- **Assessing student learning did not rely on multiple-choice or standardized tests.** A respondent said, “I’m very anti-Scantron. I just thought we can’t make any relevant assessment with that setup. That’s a little structural thing, though you’d think I was asking them to build a pyramid. It was like, ‘What? We’ve always done that.’ So we

changed that up. That opened the door actually—a little thing like that has changed it and now assessment looks very different. They can be debates and presentations of learning. The teacher’s there and they [the students] are much more alive. It made a lot of things possible.” In other schools (including those that are not in the high-performing group), presentations and demonstrations of learning replaced more standard approaches to assessing student learning.

- **Student engagement was described as higher.** As one of the respondents said, “The quality of learning is better.” Another respondent said, “I see students that are engaged, that are critical thinkers, that are innovators. I see students that are excited to come to school, teachers that are inspired to try new things and a community that is vibrant and alive and connected to the world.” A respondent from another school said, “One of the biggest benefits of this initiative has been student engagement. That was one of the ‘ah-has’ in year three, and now you kind of take it for granted, but the student engagement through the course of this grant has been incredibly better. Giving the students more choice over where they want to go with their research projects and where they want to go with their learning product, how they want to demonstrate their knowledge, has created more ownership of education among the students.”

Change in Learning Environments

The ideal, collaborative learning environment of the school refers to a professional setting in which teachers work together and across grade levels on their professional practice. In the majority of SOTF schools, interview respondents (2013) said that before the SOTF initiative teachers had few, if any, opportunities to collaborate with one another, particularly across grade levels and subject areas. Teachers worked mainly in the isolation of their classrooms. One of the findings of the December 2013 Interim Report was that among all of the schools participating in the SOTF initiative, the opportunities for professional discussion and collaboration had increased and the learning environment was more open than before.

“It’s one thing to learn as much as you can on your own, but when you’re learning with others, it’s so much greater.”
(SOTF Team Member, 2014)

The opportunities for professional collaboration and sharing, however, were more readily available in some schools than others. Change in the learning environment considers not only increased teacher collaboration but also leadership-supported approaches for bridging instruction across grade levels and teachers’ observations of their colleagues’ classrooms. These were features of collaboration that were evident in the majority of the SOTF schools and that gave purpose and shape to teacher collaboration. An additional angle to this discussion from the 2014 interviews (in the higher implementing schools) is how student engagement has contributed to a changed learning environment.

An Assessment of Learning Environment Change

In the majority of schools change in the learning environment was assessed as high. In these schools, all or nearly all teachers participated in professional learning groups on a regular basis. In addition, 2013 respondents in each school were consistent in their statements that the learning

environment had changed over the years to include formal and informal collaboration among teachers as part of the school culture.

In schools where the learning environment change was assessed as high time was scheduled for teachers to collaborate and share their professional experiences during the school day, and all teachers were required to participate. The schools whose learning environments underwent a high level of change also created other opportunities such as required peer observations, mentor networks, and shared professional development activities for teachers to share knowledge and experience. In these schools, all or nearly all of the teachers participated in collaborative activities.

In schools where the change in learning environment was assessed as moderate responses indicated that not all teachers consistently participated in PLCs. In general, teachers stated that they collaborated more frequently with their colleagues than in the past. However, individual teachers who had shared professional objectives usually initiated this collaboration. Some of the teachers participated in collaborative professional relationships and others did not. These schools created regular opportunities for teachers to meet or encouraged teachers to work collaboratively. However, the degree of change was constrained because participation in collaborative learning sessions was not required (usually because sessions were scheduled outside of regular school hours), or because the leadership had not established any other structures or systems (e.g., mentor networks, peer observations) that required teachers to work on their professional practice together. Thus, professional collaboration increased more for some teachers than others.

Indicators of Change in the School Learning Environment in 2014

As background, in 2013, respondents were asked to describe changes in the learning environment. The 2013 respondents mentioned teachers having more voice, engaging in professional discussions, observing one another's classrooms, communicating across grade levels and subject areas, and sharing professional learning. In the majority of schools, 2013 interview respondents said the school was more unified in its curricula and instructional approaches as a result of this collaboration and communication.

The changes the 2014 interview respondents described included a broad spectrum of indicators, ranging from relationships with and engagement of students to hiring practices. Following is a list of indicators the respondents mentioned:

- **Teachers' interactions with students changed.** A respondent said, "It [SOTF] created a culture shift at the school related to how we interact with kids. It created the awareness that we are no longer standing up front, being the disseminators of knowledge."
- **Risk taking by teachers became a part of the school culture.** A school leader said SOTF had "allowed us to build in practices that hopefully will be sustained as best practices. But we also developed kind of that culture of being risk takers and being willing to put yourselves out there and not to get stuck in the rut of common educational practices just because that's what came before. I think it helped us develop as a culture and as a community."
- **School procedures and decisions not directly linked to the classroom reflected cultural change.** Respondents in several schools said their school had established

procedures and structures that resulted in a different way of functioning. One of the respondents said, “The things that were developed and born from the Schools of the Future grant for us are now part of culture. We were a young school, so we were looking for procedures, ways to do things. It feels like a lot of what came out of that was built into who we are.” Another respondent said, “The way we hired people changed radically. The way we evaluated teachers changed radically. The way we run our classrooms and assess our students changed radically. There’s been a huge, huge change related to Schools of the Future. Just the whole vision of the school, the whole tone of the school has changed during the course of this grant.” In another school, a respondent said, “Schools of the Future changed the mindset that we had at the school. It dictated the type of head of school we were looking for and...the types of questions we were asking, the types of candidates we were looking at were changed because of Schools of the Future.”

Section 3. Strategies for Change

The higher performing schools achieved school wide change to a degree that other schools did not. High-performing schools did not necessarily achieve a full instructional transformation in their schools, but respondents in both 2013 and 2014 indicated that their schools had turned a corner to the extent that “there is no going back,” as a school administrator said.

The *breadth* of change in a school was significant because all of the SOTFs had proposed to implement the grant using an early adopters model. Early adopters were the teachers who were enthusiastic about and willing to try new methodologies and technology. Early adopters alone, however, did not bring about widespread instructional change in any school. In many schools there were early adopters who appeared to flourish, but there was no widespread change in instruction. Rather, the schools experienced pockets of change.

The schools in which instructional change was far reaching had a certain version of the early adopters model: an early adopters model with pressure or, as an administrator said, “nudging.” The schools set a course and then developed policies and structures that moved all teachers along that course. The early adopters model eventually became a “limited teacher choice” model in the high-performing schools. Choice was limited because not changing was out of step with the direction of the school; however, teachers were given a choice on how to change.

The study examined leadership and knowledge development approaches to determine how they supported whole-school change and how higher performing schools extended and built on the work of the early adopters. For this reason, the project coordinators and school administrators interviewed in 2014 expressed appreciation that the SOTF grant lasted five years. As a respondent said, “This is not something that is going to happen overnight.” The respondents pointed out that change requires time to focus efforts, establish structures, reflect on implementation, make necessary course corrections, and set an appropriate pace for change.

Any changes that were school wide required school wide leadership and consistent support for teachers. This section of the report describes the higher performing schools’ specific strategies to support change. These interviews addressed the following research questions:

- How do high-performing and low-performing schools differ in their leadership approaches?
- How do high-performing and low-performing schools differ in their approaches to developing knowledge and skills?
- What challenges have schools encountered in implementing the SOTF initiative, and how were those challenges overcome or not overcome?

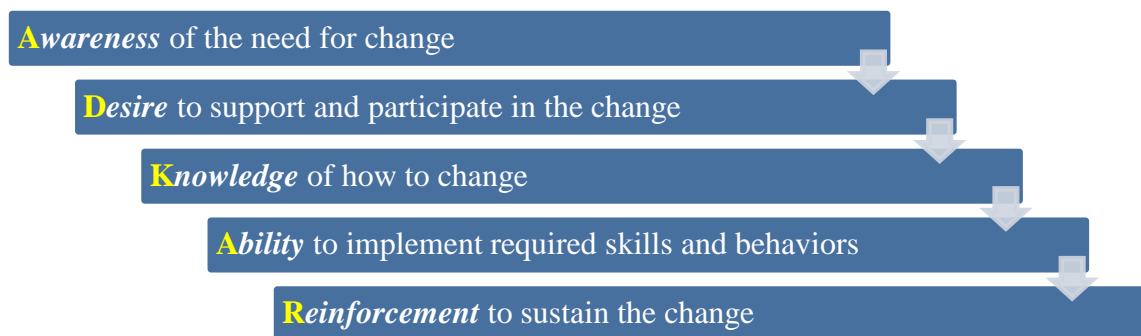
The strategies the high-performing schools used align with a model that describes the change process as a sequence of events that must occur for change to take place. The change model addresses roles, particularly of school leaders and knowledge developers, as well as practices associated with the different elements of the change model.

Awareness, Desire, Knowledge, Ability, and Reinforcement Change Model

This section considers implementation of the SOTF initiative within the Awareness, Desire, Knowledge, Ability, and Reinforcement (ADKAR[®]) Change Model of change (Hiatt, 2006), which is a research-based and results-oriented framework for understanding change at an individual or group level. The ADKAR model views change as *moving individuals toward change*: getting their buy-in, reducing their resistance, motivating them, and helping them learn and apply the knowledge and skills required to succeed. Because of the focus on the individual, the model links the strategies and activities of key change agents, such as HAIS, school administrators, and project coordinators, to the individual factors that support or deter teachers from changing their professional practice.

The elements of the ADKAR model fall into a natural-order description of how individuals experience change. The model illustrates that change is a process that includes logical and practical steps that are essential for change to be successfully implemented and sustained. The ADKAR model has five core elements (Hiatt also refers to the elements as objectives) that must be in place for change to be successfully implemented and sustained (Figure 1).

Figure 1. The ADKAR Model for Change



There is some overlap among the strategies, and several strategies serve multiple purposes. However, the general sequence of the change model, as Hiatt (2006) describes, shows that the all elements of the model are essential for effective implementation. As Hiatt (2006) states:

Desire cannot come before *awareness* because it is awareness of the need for change that stimulates our desire or triggers our resistance to that change. *Knowledge* cannot come before *desire* because we do not seek to know how to do something that we do not want to do. *Ability* cannot come before *knowledge* because we cannot implement what we do not know. *Reinforcement* cannot come before *ability* because we can only recognize and appreciate what has been achieved. (p. 3)

The life cycle of ADKAR begins after a change has been identified. From this starting point, the model provides a framework and sequence for understanding, managing, documenting, and assessing the human side of change (i.e., how individuals or groups experience change).

Building Awareness

Building awareness of the need for change is the first element of the change process and one that requires the engagement of leaders who articulate the vision and the need for change. Key to successfully building awareness of the need for change are strategies that address the individual factors that may deter change, including different perspectives about the current condition, individuals' varying perceptions about causes and problems, and the prevalence of rumors or misconceptions. If these perspectives are not addressed, there will likely be disagreement about the need for change among some or all educators.

“You need to have that vision. The vision should align with the school’s mission so that there aren’t conflicting momentums in the school.” (School Administrator, 2014)

H AIS and HCF were instrumental in conveying the vision through the guest speakers, the early field trip to High Tech High where the vision was demonstrated, the CoL meetings, and other means of communication and support. Interview respondents in 2014 also described school-level strategies for building awareness.

Several of the 2014 interview respondents said that an effective first step in implementing the SOTF was to create a common vision in the school and to convey the message that this was the direction in which the school was moving. One of the SOTF project coordinators said, “The most important thing would be getting everybody onboard with the same vision and tying everything to that vision.”

Several of the 2014 interview respondents described leadership strategies that built awareness of the proposed changes in the schools. The statements reflect two general strategies associated with building awareness of the need to change:

- Introducing teachers to the need for change through shared professional reading and discussions
- Clearly communicating the direction of the school

Introducing Teachers to the Need for Change

Shared reading and discussions were a means through which high-performing SOTFs introduced teachers to the need for change. A respondent from one school said, “It started off the first few years with ‘here’s the book you need to read . . . here are some Tony Wagner books; there are some Daniel Pink books,’ books about how our world is changing and how the education model hasn’t changed. All those discussions took place through some professional reading that we did.” Another school used a similar strategy:

First off, we made sure everyone got educated on 21st century learning and skills and the perspective. Everybody read Tony Wagner’s book over the summer. We had discussions about it. So you first have the basic education and vision. We had slideshows and introduced them to a lot of stuff. But then a lot of it was reading the book and having the conversation. But everybody knew the vision, whether they latched onto it or not. . . . I think it was very clear to everyone that that’s the direction we’re going.

Clearly Communicating the Direction of the School

Another strategy leaders used to build awareness of the need for change was demonstrating to teachers that the SOTF initiative was aligned with the direction of the school. This was a major accomplishment in one of the schools—a new school that was establishing its orientation. Respondents (2013) said that the school was initially intended to be similar to an Eastern college preparatory school. According to a school administrator in early conversations, “Everyone felt that we are not a New England stuffy prep school, so who are we?” SOTF “came along at a time to provide focus for who we are. So maybe the grant is perfect for small, start-up schools with young, innovative faculty,” the administrator said.

In another school, an administrator said the faculty meets in an annual retreat. Its first retreat after receiving the SOTF grant included a discussion of the question “Where do you see our school in one year and five years and ten years?” Following the discussion, the administrator displayed the grant goals and “showed everyone that the objectives of the grant are aligned exactly with what they’ve been saying and where they want to go. And that really helped people to buy into it because they could see this wasn’t just something out of the blue or something in addition they were going to do. This was the direction that we all were onboard with having.”

Barriers Associated With Building Awareness

Because the 2013 interviews did not address implementation strategies, it is not possible to determine the extent to which awareness of a shared vision and a need for change was addressed in all of the schools. Examples, however, illustrate how this element was not addressed.

In two schools, the 2013 interviews show that leadership did not build an awareness of the need for change or communicate the vision for change. In one school, an interviewed leader said he or she was a long-time educator who was more comfortable with traditional educational models and not fully onboard with student-centered learning. In another school, school leaders did not explain what student-centered learning is when some teachers referred to it as “watering down the curriculum”; the term “student-centered learning” was thus avoided. In one school, the technology infrastructure was strengthened as part of the SOTF grant. However, there were no leadership messages conveying the urgency of using technology in an educational setting.

Creating Desire

The second element of the ADKAR model is creating the desire to support and participate in the change. As Hiatt (2006) notes, creating the desire is primarily a function of school leadership. Desire is a key element in the change model that Hiatt says is often overlooked. Leaders frequently introduce change and the reason for change (thus, addressing the awareness component) and then step back, turning implementation over to the project directors, coaches, and others whose primary responsibility is knowledge development (the next element of the change process). However, if educators do not have the desire to change, they are, as Hiatt notes, unlikely to meaningfully invest in the professional learning necessary to develop the knowledge and ability to implement the change.

Several factors that may influence teachers' desire to engage in and support change are the perceived impact on the individual teacher in terms of time or consequences; the trust and professionalism that typically characterize the school environment; and individual motivators and concerns (e.g., where a teacher might be in his or her career, individual interests and preferences).

This section examines the *creating desire* element of the change model in some detail because it is a key step in the change sequence, and there are many strategies and supports related to this element. It is this element that often distinguishes higher and lower implementing schools. For the desire to change to take hold, leaders must be continually involved to prepare their organization for change and to manage the inevitable resistance to change.

The reported strategies associated with building desire, as found in the high-performing schools, are the following:

- Creating a culture of trust
- Establishing supports and structures for change
- Empowering staff to lead change, particularly with respect to the project coordinator's role and responsibilities
- Including teachers in the change process, particularly through SOTF project teams
- Allowing teachers choices on how to change
- Encouraging resistant teachers to change

Creating a Culture of Trust

The ADKAR element, building desire, asserts that teachers' willingness to engage in change is influenced by the school environment; teachers are more willing to engage when the environment is characterized by trust. One of the administrators who was interviewed in 2014 said,

I should say one of the biggest challenges was at the onset: getting people to trust each other. When we were doing collaborative activities like project tunings or critical friends—[we had to move teachers from] a silo mentality to having them trust each other and share their ideas. Because we persisted with that for the first few years, the culture then changed. Once that hurdle was overcome, we made great strides.¹

The administrator did not elaborate on strategies for changing the culture but was unequivocal about the importance of doing so.

¹ This finding is consistent with other AIR evaluation findings. In an evaluation of an initiative in 20 public schools, for example, schools characterized by distrust among teachers or between administrators and teachers implemented change more slowly, less comprehensively, and with more difficulty than schools where the culture was characterized by trust. A key finding in this evaluation was that implementation must be built on a culture of trust.

Establishing Supports and Structures for Change

The leadership in the higher performing schools created several types of structures that supported the intended change. In most cases, these supports and structures were established early in the SOTF grant tenure:

- Scheduled and required sessions for teacher collaboration and professional learning during the regular school day resulted in high participation in the sessions. In the higher implementing schools, these times were scheduled at least weekly. For example, one school set aside time every Wednesday afternoon for internal professional development. Another school set aside time daily for teacher collaboration. The 2013 interviews showed that participation of all teachers in collaborative or professional development sessions was high in the schools that had scheduled the sessions during the school day. Participation was low or mixed in schools where sessions were scheduled after school and attendance was not required.
- “The school day was restructured so that teachers’ PLC time was sanctified. There are plenty of opportunities for [teacher collaboration]. . . . Having a time to get together to work and to collaborate and also just to informally discuss is important.” (School Administrator, 2014)
- Schools changed classroom schedules to align with intended change. Two of the higher implementing schools scheduled longer class periods so that instruction would be reoriented to more student-centered methodologies, such as project-based learning. One of the schools changed the exam schedule to encourage different approaches (e.g., presentations of learning) for assessing student learning.
 - Schools boosted support for technology integration. The higher implementing schools provided increased technology support with the addition of SOTF-funded improvements to the technology infrastructure and additional staff to help teachers use technology. In one school, a respondent said, “We restructured our entire tech team in mind of our grant goals. They have been working the last two years to bring up K–6 [teachers]. At this point, as we are ending the grant, technology has really impacted everyone from K through 12.” A respondent from another school said the school’s SOTF team helps teachers integrate technology; in another school, a media specialist works with teachers on technology integration.
 - Schools required teachers to align their professional goals with the school’s goals. A widely used strategy among the high-performing schools was to align the professional goals of teachers with SOTF goals for the school. Respondents in the higher implementing schools said teachers were required to select professional goals that were aligned with SOTF goals (e.g., student-centered learning, technology use). In addition, teachers’ requests to attend professional development opportunities were approved if they were aligned with school goals. To increase professional collaboration, teachers who learned new strategies were expected to share new knowledge with their colleagues during regularly scheduled professional learning opportunities.

Empowering Staff to Lead Change

One of the key strategies related to creating desire is leaders equipping staff to lead change. According to Hiatt (2006), the staff who lead change have several responsibilities, including communicating about the change at group and individual levels, demonstrating commitment to the change, and managing resistance to change.

Within the context of the SOTF initiative, the person designated and equipped to lead the change was the project coordinator. Project coordinators in the higher performing schools said administrators gave them the authority to drive the grant. One respondent said that the head of

“If the administrators are trying to micromanage that person [i.e., project coordinator] or say no to everything and not allow a change to happen, that can also ruin the chances of the grant implementation being successful.”
(Project Coordinator, 2014)

school “has given us a lot of free rein to make the grant happen. I have met with him when I have needed to consult on different goals or on what we are going to try for the next year. . . . He has a full understanding of what is going on. He lets us kind of drive the change.”

Similarly, another project coordinator was described as the “driving force” of the initiative, the person who “makes sure that the balls don’t drop with Schools of

the Future.” Two of the project coordinators said that had they not been allowed to drive change, implementation would have been slower.

The project coordinators in the high-performing schools dedicated much of their time to professional development, and those interviewed in 2014 said this was their major area of responsibility. The project coordinators planned, organized, and approved professional development aligned with the SOTF goals and created schedules, structures, and procedures related to professional development. Project coordinators also provided professional development and served as coaches and trainers for individual teachers. A project coordinator said:

I would say probably the biggest part [of my role] is the professional development part, kind of helping to identify professional development opportunities and coordinating—deciding which professional development opportunities fit with our goals and then coordinating attendance and the right personnel to go to those and then bringing the messages back to campus and sharing out on the campus.

The 2014 interview respondents (administrators and project coordinators) were asked to identify the most essential requirements and characteristics of effective project coordinators. Those most mentioned (in approximate order) were the following:

- **Good relationships with and the trust of school leadership.** “The key decision maker is essential. I think having someone that the head of school is confident in, that they trust, is essential,” a respondent said. Similarly, another respondent said the project coordinator should have a “really good relationship with the administrators—and their approval to lead the grant.”
- **Good relationships with and the trust of teachers.** “The project coordinator needs to be somebody who’s not really prescriptive or really maybe authoritarian but more encouraging and open,” a respondent said. One of the respondents said, “I also think that it’s important that that person is a teacher or has been a teacher.” Another respondent

said, “I would advise that the person should be well versed in pedagogy and what it’s like to actually be in the classroom because a large part of the 21st century teaching initiative has to do with what’s happening in the classroom.”

- **Flexibility.** Flexibility in working with teachers was a characteristic mentioned by several respondents. One respondent said that when learning new skills, teachers have different points of entry. The respondent added, “The most important quality for the project coordinator is an open mind both to educational change but also to entry points for different faculty members finding their own path to educational change.” A project coordinator said the school’s approach with change was, “We never forced teachers to change. We worked with them and we said, ‘We’ll go at your pace. We want you to change. Change is a process, not an event. The process is different for everyone.’”
- **Communication skills.** Respondents described the importance of the project coordinators effectively communicating with teachers and administrators. One respondent said that maintaining communication is important for teachers and administrators “to understand what the initiative is, what you are coordinating, what it looks like, what it means to them . . . that constant communication, be it online or face-to-face meetings.”
- **Technology skills.** Technology is a component of the SOTF initiative, and this component is difficult for some teachers, particularly because applications change quickly and because many teachers have not integrated technology into the classroom. It is beneficial for project coordinators themselves to have technology skills so they can provide individual support to teachers as they learn new technologies.
- **System thinking.** A respondent also mentioned the need for the project coordinator to address systems and identify and establish (with leadership support) the systems and structures needed to implement and sustain educational change.

“The project coordinator should know how to communicate with administrators to advocate for professional development and systemic changes, such as built-in collaboration time, to articulate with the technology department, and to brainstorm and advocate for ways to have digital hardware and software in the right places.”
(School Administrator, 2014)

These characteristics are indicative of the key role of the project coordinator in the change process. Several of the characteristics (communication skills, having good relationships with administrators, having good relationships with teachers) signify that the project coordinator is the link between administrators and teachers, working with both groups (and others) to move the project forward. The characteristics also indicate the project coordinator’s critical role in providing professional development and individual support to teachers.

Including Teachers in the Change Process

In the ADKAR change model, creating desire for change is supported by including employees (in this case, teachers) in the change process. Establishing project teams was one method schools used to engage teachers and administrators in the change effort. An administrator said, “Team membership increases buy-in among teachers. . . . It provides them the opportunity to contribute

to whatever discussions are being had and any issues that are being put on the table.” Another respondent said:

The main thing I ask of the grant team is to lead change and come up with new ideas and bring about student-led learning, project-based learning, problem-based learning, effective integration of technology and share—share what they’ve done with others either at [professional development] sessions, one-on-one, through e-mail or a website, or a show-and-tell day or whatever—but sharing what they’re doing.

For the higher implementing schools, team membership reflected the school’s perspective that SOTF was a whole-school initiative. Respondents said teams should include administrators, teachers, and technology integration specialists or another staff person who helped teachers learn new technologies and how to integrate technology into instruction. A respondent said teams should include “a range of voices from administration down to the faculty level and include teachers who have either a natural interest or already have professional development in key areas like pedagogy or technology integration.”

Numerous respondents said teachers who are leaders and interested in trying new methodologies should be included on the teams. A respondent said, “You are finding faculty who are interested in seeing this kind of thing unfold and are interested in being risk takers and interested in being the front line. . . . You have to have people who are interested in doing that.” In addition, participating teachers should represent different schools or grade levels and, according to two respondents, include both more innovative teachers and more traditional teachers. A respondent said, “It’s a good idea to pull in a veteran teacher because their voice is very, very important. They will provide some insight that maybe the brand-new teacher who is willing to put everything on the line wouldn’t necessarily have.”

“It’s important to have the administrators on the SOTF team because you have to have structures in place within the school day to allow for collaboration and to allow for innovation time for teachers. But it’s also important to have some teacher voices on there—some teacher leaders to help add perspective and buy-in on the faculty level.” (Project Coordinator, 2014)

Allowing Teachers Choice

Both the project coordinators and administrators who were interviewed in 2014 said it was important that teachers be given a choice on how to modify their teaching. A project coordinator said imposing a one-size-fits-all demand that does not consider teachers’ current knowledge is likely to make teachers resistant to change. Similarly, a school administrator said, “It all comes back to teacher ownership. ‘What has caught your interest in this whole discussion? Go for it.’” Interviewed school administrators said learning among teachers requires a safe environment in which to take risks. One of the school administrators said, “Just like kids, if the environment is really safe and supportive, then that growth will happen.” Another school administrator said, “I think the message that’s sent is that it’s safe to

“It’s okay if we have a teacher who’s just getting used to e-mail and getting comfortable with that, and we have someone else who is running a paperless classroom. They don’t have to be on the same level—but take people where they are and move them forward.”(School Administrator, 2014)

jump off the cliff. If you jump off the cliff and you fall flat on your face, it's okay too. Because the idea is that we need to take risks in order to find best practices.”

Encouraging Resistant Teachers

In the early adopters model, which the SOTF schools used, some teachers readily adopted the change, whereas others were resistant to change. For the change process to be successfully implemented, eventually all teachers have to adopt the change so that pockets of resistance are not large or influential and so that students have an integrated and coherent educational experience.

The higher performing schools employed several strategies to gain teacher buy-in and encourage reluctant teachers. One of them, according to a 2014 interview respondent, was to encourage teachers to view technology use or a student-centered learning method as “integrated into what you are doing already.” This strategy, according to the respondent, addressed teachers’ concerns about making too many changes at one time. Another strategy was for leaders to ask teachers to observe the classrooms of other teachers. A respondent said, “I don’t know how you cannot get excited about some of the things you’ll see if you visit other people’s classrooms when they’re doing more of these creative assignments.” In another school, an administrator referred to the classroom visits as taking “learning walks.” In these walks, teachers observed one or more colleagues who had made small or large instructional changes. The administrator said:

One of the things that we instated were learning walks. The idea was for teachers to find somebody they admire as a teacher—and we did that within departments—and just go and watch that teacher and kind of talk about what they saw and learned. That is one way to reach the hesitant teacher because they can see [a strategy] in action without feeling like somebody’s watching them or measuring them or judging them.

Another strategy was for school leaders to meet with resistant teachers and discuss expectations. A school administrator said:

For those who are reluctant, we find that the most effective way to create change is to really highlight the people that are already changing and the successes . . . with that being the front of the boat. The back of the boat would be the final line of teacher evaluations—meaning “This is the mission of our school. These are the professional development opportunities that we provide for you. This is the direction we’re going.” For those rare birds who really have struggled with that, the ultimate question is, “Do you think this is the right school for you?” Everyone who signs up for an institution has to align themselves to the mission of the school.

In another school, a leader said the school uses a rubric-based tool that describes what is expected of teachers. The expectations are aligned with the school goals, which are aligned with SOTF goals. Using the rubric, the leader said:

I can talk with teachers individually to assess how they want to move forward and the support they need. In that way, teachers feel supported and encouraged. . . . You have to try and get those people onboard through working with them and through training and through support. And you can hopefully do that over time. And, ultimately, over time, if

you can't get somebody onboard and they're damaging to your community, then they should not be a part of that team—but not to say we just throw people out. We try and work with everybody.

Barriers Associated With Building Desire

Hiatt (2006) views creating desire as the responsibility of school leaders and has observed that leaders frequently overlook this component of the change process. For some of the SOTF schools, one or more of the following limitations related to this change component were evident in the 2013 interviews:

- The role of the project coordinators was limited. This generally happened because the project coordinator did not have the authority or was not positioned to drive the grant. This does not infer that they did not fulfill their role but merely that the role was narrowly defined.
- School leaders did not establish the supports and structures necessary for change, including schedule changes that accommodated PLCs during the regular school day, when all teachers would be required to participate, and procedures and requirements that would require teachers to learn and apply new methods and technologies.
- Teachers were not given a role in the change process. They may have individually decided to change; however, they did not have a role in planning change that addressed the entire school or certain grade levels. Interviews in 2013 suggested that this lack of roles resulted from a narrow project plan, a top-down management style, or both.
- In several schools (at least two) resistant teachers were allowed to be resistant. The 2013 interviews did not fully explore this area, but interview respondents in the two schools indicated that teachers had a high level of autonomy. In one school, this autonomy resulted in teachers in elementary grades not adopting the instructional or technological strategies adopted by teachers in the upper grades. Some teachers (who were early adopters) mentioned that administrators did not address teachers' noncompliance.

Developing Knowledge

Developing the knowledge on how to change is a primary activity in the change process. This element addresses training on new processes and roles. It depends on a school already addressing the prior two elements (building awareness and creating desire). As Hiatt (2006) states,

Anytime you put training or knowledge ahead of awareness and desire, you will be disappointed with the results. Conversely, whenever awareness and desire are present, an individual naturally seeks the knowledge of how to succeed. (p. 101)

Factors that may influence the development of knowledge are an individual's current knowledge base and capacity, education and training resources, and access to or the existence of the required knowledge. Key opportunities to provide knowledge of how to change include professional development and individualizing that professional development to meet the needs of a diverse set of employees—in this case teachers. Another key component of knowledge development, according to Hiatt (2006), is providing forums for individuals to share their experiences with learning and trying new skills and discussing how they addressed challenges.

Hiatt (2006) asserts that knowledge development primarily takes place on site. The SOTF initiative provided teachers with many opportunities to participate in external professional development opportunities, and the higher implementing schools established policies to ensure that these opportunities were relevant to the SOTF goals and that participating teachers would share what they learned with their colleagues. One of the project coordinators (2014) said, “We set up a kind of mentoring network and learning opportunities internally. And anyone who goes away to training has a responsibility to share their learning with everybody else.”

The 2014 interviews described approaches to knowledge development that are mainly focused on school-based strategies and opportunities to disseminate knowledge across the school. These include the following and were evident in all SOTFs:

- Requiring teachers to share knowledge gained from their participation in external development
- Providing multiple opportunities for teachers to teach teachers

Sharing Professional Development Knowledge

Opportunities for teachers to go to external professional development events were a valuable component of the SOTF initiative. For the majority of schools, these opportunities were limited in previous years because of funding constraints and the few offerings on the islands. In 2013, interview respondents in several schools said teachers had no opportunities to participate in professional development before their school’s participation in SOTF; thus, participants described the exposure to different ideas and strategies as a major benefit of the grant.

In the high-performing schools (as well as several other schools participating in the initiative), teachers who attended professional development were also required to share their knowledge with their colleagues. An interview respondent said, “If we [teachers] would go out and do any sort of professional development, we were expected to come back and share that with the school.” In another school, a school administrator said:

Instead of just having those ideas just implemented in that one room, we would ensure that those people would share what they did with others and help others along. Two of us went to High Tech High in the first year, myself and another teacher. And we brought it back. And we shared how to do project-based learning and helped others to create project-based learning opportunities for students. That has really grown since then.

Similarly, a project coordinator (2014) said, “Even though we won’t be able to take 14 people to Building Learning Communities, we have that idea of being a learning cohort. So even if it was four people that we could afford to send, they would come back and be strong sharers of whatever they learn.”

Providing Multiple Opportunities for Teachers to Teach Teachers

The higher performing schools established multiple in-school learning opportunities for teachers to teach other teachers, and, with one exception, the opportunities were scheduled during the school day, when teachers were required to attend. This was the most prominent way in which teacher knowledge was developed and shared. In one school, the scheduled, schoolwide professional days were changed in 2013–14 so that each teacher presented a 10- to 15-minute session in which they shared information about a project. In another school, teachers share “something really different” they have tried at different faculty meetings or venues that a large number of teachers attend. The project coordinator said, “There is a wide range of change that teachers are choosing for themselves.” Three of the project coordinators said the sharing encourages other teachers who are reluctant to try new methods. An administrator said, “We get a lot of people innovating and trying new things because of what they’re seeing happening in the classroom next door.”

“It was teachers sharing what they were doing and how they were bringing about change in their own classroom. The teachers know they can do this. ‘I have the same type of kids in my class, so it’s not impossible.’” (Project Coordinator, 2014)

Teachers cited the following advantages of teachers teaching teachers: Teachers are encouraged when they learn what other teachers have done and, in some cases, find out that change can begin with small steps; teachers who are new to the school are exposed to instructional methods that are being implemented in the school; and sustainability of change is supported when the school does not have to rely on funds for external professional development. The following comments show different ways of and reasons for teachers to teach other teachers:

At different faculty meetings or venues where there are a lot of faculty, we’ll have people who’ve done something really different share—oh, wow, I see that they took that risk or somebody who’s done something really small. There’s a whole range of change that teachers are choosing for themselves. And they see that whole range demonstrated and applauded and celebrated.

I think the two that come to mind the most are the [professional development] day that we have teachers teaching teachers. It’s so effective at bringing about change. It was not just someone we went to see. It was not someone we paid to bring in. It was a teacher sharing what they were doing and how they were bringing about change in their own classroom—to other teachers. The teachers know they can do this. I have the same kids in my class. I have the same type of kids in my class. So it’s not impossible. I think that was a huge one.

We often allow our teachers the opportunity to collaborate together informally but then also to teach each other on professional development days. And that sort of serves as a model for the risk takers: Well, if they tried it, I can try it.

Barriers to Developing Knowledge

In some of the SOTFs, school leaders did not change the school schedule so PLCs or other professional development opportunities could occur during the school day. A 2014 interview respondent said, “I think the reluctance of teachers coming [to professional learning sessions] is

because it's after school. If it was actually during their work day that would improve attendance.”

Fostering Ability

Fostering ability refers to applying knowledge to one's practice. This is an area that Hiatt (2006) notes is frequently overlooked during a change process, and change managers may assume that by providing knowledge, individuals will naturally implement that knowledge and change their practice. As Hiatt notes, “Knowing how to do something and being able to do something are not the same thing” (2006, p. 113). Hiatt also states that individuals' capacity to implement change varies, so individualized support is necessary. “There must be a safe environment to practice new skills and job roles, and someone to provide correction, coaching, and support,” Hiatt says (2006, p. 114). Hiatt also points out that individuals may not apply knowledge to their practice because they do not have the desire to change and may have attended training and professional development sessions out of compliance rather than with an intention to change their practice.

The 2014 interview respondents identified strategies—many of them shared across schools—that fostered teachers' ability to implement new knowledge and skills, including:

- Providing individual support for teachers
- Monitoring performance
- Creating a safe environment for change

Providing Individual Support for Teachers

Individual support—coaching—is an important component that helps teachers apply what they have learned in the classroom. In most (though not all) of the higher performing schools, the project coordinator provided teachers with individual support. This was particularly systematic in one of the schools where the project coordinator helped each teacher use technology to attain his or her educational objectives. The project coordinator set up schedules and worked with each teacher until he or she learned how to use the technology independently:

A lot of times what I did to help with those teachers is I went to the classrooms. I said “we want to try Google Docs with your class. I will come and teach it to you as a student in the class. The next day, as you feel more comfortable, I'll just be in the room to assist.” Finally, the teacher's ready to say, “Hey, I can do this on my own.” Then, they can go from there.”

The project coordinators in some schools did not have the time to plan and provide this level of support. Unless project coordinators (all of whom were teachers or administrators in the high-performing schools) had release time, the time they had to coach individual teachers was limited. However, another option, used in several schools, was to position a teacher (a peer) as the “go-to” person—someone to whom other teachers could turn if they were trying to learn and apply an instructional method this teacher had successfully used. In one of the schools, this person was identified through his or her presentations in a PLC. In other schools, observations of peers or observations by peers, followed by a reflective discussion, were a means of providing teachers with individual support.

Performance Monitoring to Ensure Accountability

Performance monitoring is a means of holding teachers accountable for implementing the intended change. This practice was more evident among the higher performing schools than other schools and included:

- **Goal setting.** A key to monitoring was having teachers establish individual professional goals, selected to align with both the school goals and teacher interest. Teachers identified their own professional goals (and were allowed choice in doing so) and were then evaluated based on those goals. All interviewed administrators said the purpose of the evaluation was to help teachers reflect on their instruction and identify areas in which they needed support.
- **Classroom observations.** Some schools implemented classroom observations and two of the higher implementing schools also videotaped instruction so that teachers, with the project coordinator, administrator, or a colleague, could review the teaching and reflect on what worked and what did not work. The observations were intended to be formative and not evaluative.
- **Availability of classroom information.** In one school, unit and lesson plans, assessments, and grades were “out in the open for everyone to see,” which supported group accountability, according to the project coordinator.
- **Mapping implementation.** In one of the schools, a project coordinator created an innovation configuration (IC) map, which had indicators, each with a rubric, showing each teacher’s level in terms of each indicator. The project coordinator said, “It’s like a word picture descriptor rubric. We looked at all the grant goals that we wanted and broke them down into the changes we wanted to see in classrooms and then created this map. The map is a great reflective tool for teachers to finally understand what the grant is all about.” The novice-level rubrics provided descriptions of overall teaching requirements for the school, reflecting the direction the school is going. An administrator said she discussed the IC map with each member of the faculty to set individual goals. The project coordinator then helped teachers move toward those goals. The administrator said teachers felt “supported and encouraged. They don’t feel like they are being compared to others.” The map is a way of monitoring goal achievement individually and collectively.
- **Requiring teachers to apply what they learned in professional development.** In one of the higher performing schools, teachers were required to apply what they had learned in professional development. This was a requirement from the very beginning of the SOTF grant. For example, teachers who attended a two-week summer course on project-based learning were required to implement the project before being paid their stipend for attending the session. In that school, a respondent said, “We spent some time looking into the flipped classroom and teaching a whole bunch of people about what that looks like and teaching them how to make online lectures. Part of the requirement was ‘Okay, you just spent all this time learning it, so you’ve got to try it.’ We are going to come back quarterly and talk about what worked, what didn’t work.”

Creating a Safe Environment for Change

In the higher performing schools, administrators and project coordinators (interviewed in 2014) said they have fostered an environment in which teachers are encouraged to take risks. In each of the schools, interview respondents said creating a risk-free environment for change, or what an administrator called “releasing teachers from the burden of perfectionism,” is critical to change.

When monitoring does take place, the monitoring is not a summative evaluation with potentially negative consequences for a teacher but rather a way to identify where teachers need support. One of the project coordinators, who is also a school administrator, said that teachers write a reflection about their year and their goals for the future—“what they want to accomplish and what they are looking at.” Then the project coordinator and head of school discuss the year and progress toward meeting goals. “We don’t really call it an evaluation,” the project coordinator said. “Teachers used to have an evaluation. I got rid of it.”

All administrators were adamant that teacher evaluations should not be linked to student performance and that an evaluation (whether it is called that or not) should largely be a conversation that leads to more-focused support. An administrator said that through these conversations, “the principal can help guide a teacher who may or may not be struggling with Schools of the Future.”

Barriers Associated With Fostering Ability

In several of the schools that were not among the high-performing schools, the project coordinator was not in a position to or did not have the qualifications to provide teachers with individual support. As determined by the analysis of the 2013 interviews, in several schools the project coordinator was responsible mainly for managing the grant and did not provide professional development, was not a teacher or an administrator, or was an educator but not a teacher leader. Turnover in the position of project coordinator occurred in four of the SOTFs, including one in the high-performing group.

Monitoring and accountability systems were not in place in some of the SOTFs. (The number is difficult to ascertain, but 2013 interviews suggest that monitoring was not in place in seven of the SOTFs.) The existence of monitoring appears to be a major difference between high-performing schools and others. Although the high-performing schools had an early adopters model, they expanded this model because the performance monitoring approach established professional expectations. The difference is significant. Where there were no accountability systems in place (related to SOTF instructional practice), there were fewer incentives for change, and administrators and project coordinators were less able to provide focused support.

Reinforcing Change

According to Hiatt’s (2006) ADKAR Change Model, the last element is reinforcing change. Hiatt describes several strategies to reinforce change that together establish mechanisms that “prevent employees from reverting to old ways of doing work” (2006, p. 119). According to Hiatt, factors that reduce the likelihood of sustaining change are changing leadership, disbanding project teams, and reducing implementation efforts prematurely—before the change has been integrated into the organization.

The five-year SOTF grant was ending around the time of the 2014 interviews. At this time, it was difficult to discern strategies respondents would have linked to reinforcing change. The respondents did, however, refer to certain strategies that they anticipated would be sustained. These include the following:

- **Creating schedules that allow teachers time and opportunities for professional sharing and learning.** A respondent said, “We know that we’re going to have those professional development days. We know that we’re going to have the collaboration time weekly. And those things are built in, nonnegotiable.”
- **Recognizing teachers’ accomplishments.** A project coordinator said that the school would rely on its teachers to provide professional learning in the school: “And if they have opportunities to share and brainstorm and teach each other, it’s just energizing. It empowers them. It helps them to feel appreciated and valued.”
- **Hiring leaders and teachers who support the change.** Some SOTFs have experienced leadership changes. In two schools, interview respondents said the schools’ orientation to a skills-based and student-centered instructional model influenced their hiring decisions. Section 2 mentions this occurrence as an indicator of change in the school environment.
- **Aligning the grant goals with the accreditation requirements and the school action plan and mission.** One of the respondents said, “The grant goals were aligned with our accreditation and our school action plan and the mission of our school. So this is what we are going to do no matter what.” Another respondent said, “The actual pedagogy is going to live on because the mission of our school is for student-centered learning and also for collaboration. It’s built into our system now.”
- **Identifying and pursuing opportunities to extend and build on SOTF plans and accomplishments.** Respondents mentioned pursuing grants and Web-based professional development sessions aligned with the school’s SOTF goals. The main funding concerns were related to external professional development and technology.
- **Developing structures and procedures (e.g., the IC map, classroom observation structures) that support change.** One of the respondents said, “I think the IC map is critical and that will help us sustain.” In another school, a respondent said, the school’s administrative structure, teacher leaders, and the approach for assessing student learning will continue after the grant ends.
- **Hiring new staff with qualifications and approaches aligned with the SOTF initiative.** One of the respondents said a new administrator (as of 2014–15) had attended a professional development meeting and is working with the project coordinator to “learn more about what we are doing.”

Respondents in 2014 also described risks and challenges that threatened sustaining change. Many of the challenges were contextual and associated with finances and staffing. The 2014 respondents mentioned the following challenges:

- **Faculty turnover.** In one of the schools, a respondent said there had been a 30- to 40-percent turnover of teachers. Although the school is hiring staff members experienced with and oriented to student-centered learning, the respondent viewed the lack of stability as a challenge. A respondent in another school said faculty attrition is a challenge: “We

had a lot of people leave,” and as a result, the SOTF team has not been as cohesive and active as in the past. With turnover, a respondent in a third school said, “We have to start with them over and over again each year.”

- **Administrative turnover.** Administrative turnover was a potential challenge identified by several respondents. Even in a school where administrative turnover was not anticipated, a respondent said, “How are you going to sustain this forward movement if somebody else comes in and they don’t necessarily see that as the way because they are new to the program? I think those are things that need to be thought about very carefully.” Another respondent, whose school has experienced a 50 percent turnover in administrators over the last few years said, “You want to feel that there’s a core foundation as you are taking risks. Maybe it’s inevitable that the boat rocks, but that is an issue, which hopefully improves.”
- **Financial uncertainty.** Particularly in new and small schools, financial uncertainty is an issue. (Two of the original small SOTF schools closed as a result of inadequate finances.) In two schools, respondents mentioned the financial uncertainty of the school. The uncertainty reportedly increased faculty turnover and diverted the attention of administrators from SOTF-related change to efforts to financially sustain the school. In one school, various staff members had to be laid off, and the school underwent a restructuring. In another school, a respondent described “a constant state of flux” and said that, as a result, accountability structures (as opposed to informal conversations) had “fallen through the cracks” and had not been established as intended. A respondent said, “It would be awesome if we had more of those structures in place, but we need to make more money as a school to at least buy ourselves the time. SOTF did help with that, though. It did help with time. It got us time to think and create and connect and that’s really valuable.”
- **Key stakeholder understanding.** Several respondents said key stakeholders do not necessarily understand the major components of the SOTF initiative. Stakeholders mentioned included parents, teachers, and board members. One respondent mentioned that communicating with parents was a barrier but did not elaborate. A respondent said teachers may be fearful of “going with students’ curiosity” and allowing them to invest time in academic effort that is not prescribed. Teachers are also reluctant to give up certain aspects of the more traditional curriculum, particularly letting go of content that had long been part of the curriculum. In another school, a respondent said, “It’s not like everybody is there. Dealing with the negativity of people can get you down.” Referring to the board of directors, a respondent said that just as the school reenvisioning itself and key decisions, “I think that our board also needs some kind of reenvisioning on how they’re making decisions and policies without understanding the educational vision. None of them are educators . . . , but I can see it as a definite growth area.”
- **Overburdened teachers.** One of the respondents said a challenge is that the student-centered instructional approach demands more of the teachers and “teachers are extremely stretched already.” The respondent added, “You have got to customize, invent, be creative in the classroom, and that gets exhausting.” Particularly in small schools, teachers have many roles, and finding the time to learn, plan, and implement different instructional techniques is challenging for individual teachers.

- **Facilities and schedules.** A respondent in one of the schools said the school facility, as well as the classroom schedule, was instituted to accommodate more traditional classrooms. Now, with project-based learning and other methods, “The physical environment makes it difficult. . . . How do you create spaces where this kind of learning is easier to do it in?” The school does not have block scheduling, and the respondent said, “The schedule itself is hard. . . . It has not been changed in a long time.”

Summary

Using the Hiatt (2006) change model, the schools this section of the report highlights have enacted implementation plans that align with the ADKAR model, even though they may not have been informed by it. The table below presents the reported strategies the schools incorporated into their implementation plan that are aligned with the five elements of the model: building awareness, creating desire, developing knowledge, fostering ability, and reinforcing change. The table also notes whether leaders or knowledge developers (e.g., project coordinators) were primarily responsible for the strategy.

Reported Implementation Strategies in the Higher Performing SOTFs

ADKAR Element	Strategy	Responsibility
Building Awareness of the Need for Change	Use shared reading and discussions to introduce teachers to the need for change	Leaders
	Demonstrate that the intended change is aligned with the direction of the school	Leaders
Creating Desire for Change	Create a school climate that is characterized by trust	Leaders
	Establish structures, schedules, and processes that support the intended change	Leaders
	Select a respected and qualified project coordinator and give that person the authority to drive the grant	Leaders
	Establish inclusive project teams that allow members a voice in planning and supporting the intended change	Leaders, Project Coordinator
	Give teachers a choice in how they will modify their teaching, while making it clear that modification in the direction of the intended change is required	Leaders, Project Coordinator
	Address teacher resistance to change	Leaders, Project Coordinator
Developing the Knowledge to Change	Establish expectations and venues for teachers to share what they have learned in external professional development sessions	Leaders
	Schedule opportunities for teachers to teach other teachers during the school day	Leaders
	Provide different types of opportunities for teachers to teach other teachers	Leaders, Project Coordinators
Fostering the Ability to Implement Change	Ensure that teachers have individual support when they are learning and implementing new strategies	Project Coordinators
	Communicate to teachers that taking risks is important and safe	Leaders
	Monitor performance in a way that clarifies expectations and that identifies teacher needs for targeted support	Leaders, Project Coordinators

ADKAR Element	Strategy	Responsibility
Reinforcing the Change	Continue to implement the schedules and supports that support change	Leaders
	Hiring leaders and staff whose professional practice and values are consistent with the change	Leaders
	Recognize teachers' accomplishments	Leaders, Project Coordinators

In the SOTFs, the roles of leaders and project coordinators sometimes merged. In other instances leaders or project coordinators provided different types of opportunities for teachers to teach others and monitor performance, which helped encourage teachers to change and overcome resistance.

Without leadership engagement throughout the implementation process, key elements of the change model remain unaddressed. The strategies that particularly depend on leadership are those associated with building awareness and creating desire and are the ones that lay the groundwork for change. Given the importance of these two elements (according to Hiatt [2006]), if change is slow or partial, it is important to assess and perhaps strengthen leadership approaches to building awareness and creating desire.

Fostering the ability to implement change picks up where professional learning and expectations for change leave off. First, teachers are likely to need individual support. They may get that support from a project coordinator who is positioned and has the qualifications to provide it. When teachers do not implement change, one area to assess is the availability and quality of support, particularly from a project coordinator. Another area to consider is whether leaders assure teachers that change requires risk—trying something new and accepting that initial efforts may not be successful. Leaders must also monitor performance to learn whether change in the classroom is occurring.

This section does not address interview respondents' strategies to reinforce change in the same detail as strategies related to the other ADKAR elements. It is possible that strategies to reinforce change will be a factor when the schools attempt to sustain change now that the grant has ended. Numerous respondents described the challenges of teacher and administrative turnover, funding, demands of new pedagogies on overburdened teachers, and difficulty in conveying the need for change among diverse stakeholders. Although the schools highlighted in this section “turned the corner” as they set a path to their SOTF goals, respondents in two of the schools mentioned the threats of leadership changes and financial uncertainty.

In conclusion, the strategies in this section are illustrative and may be useful starting points for other schools planning far-reaching changes in their schools. The strategies demonstrate how the high-performing schools moved from an early adopters model based on voluntary participation by teachers to a limited choice model, in which teachers were required to change, given a choice as to how, and supported by opportunities to develop and apply new knowledge. The strategies are not prescriptive but instead illustrate ways school leaders and project coordinators guided the change process, as well as ways in which teachers were included, supported in their professional development, and encouraged.

Section 4. Summary

The SOTF initiative provided funds to a group of diverse private schools in Hawaii beginning in the summer of 2009 and ending at the close of the 2013–14 school year. HCF and HAIS guided the five-year initiative. The two organizations provided a high level of support to its SOTF grantees, allowing participating schools five years to achieve their goals and the discretion to adapt the basic SOTF components (student-centered learning, technology integration, and PLCs) to meet the needs of their schools. HCF and HAIS encouraged and facilitated learning and networking among the schools through its early field trips to High Tech High and the ISTE conference, the quarterly CoL meetings attended by representatives of all of the participating schools, and technical assistance. The 2014 interview respondents were unanimous in their appreciation for how the grant was managed and the grantees were supported.

As Section 2 notes, nearly all schools indicated that instruction had changed and become more student centered. The breadth of change differed, however. In some schools, instruction changed among some teachers and not others. In addition, although the learning environments reportedly changed in all of the participating schools, change was more widespread in schools where all teachers were frequently required to engage with and learn from their peers.

Respondents in 2014 reported changes in instruction and learning environments that took place over the years they participated in the SOTF initiative. Related to instruction, the indicators included teachers' understanding of skills-based instruction and their use of more diverse pedagogies, different (and more comprehensive) ways of assessing student learning, and greater student engagement. Related to learning environments, the indicators included teachers' professional relationships, teachers having more facilitative than authoritative relationships with their students, teacher willingness to take risks and try new instructional methods, and a variety of school processes and decisions that influenced how the school functioned.

This Year 5 Report distinguishes between higher performing schools and other SOTFs in which change was not as widespread. It is important to note, however, that in 2013, respondents in all schools (2013) reported that participation in the SOTF initiative resulted in changes in the learning environment and that learning environments had become more open and teachers less isolated and more likely to seek and provide support to their peers. Respondents in all schools also reported that teachers were using technology and implementing student-centered methodologies, although in varying degrees.

In the higher performing schools, instruction changed among all or most teachers and a momentum for change was established. A key difference between schools where instructional change was limited and schools where change was widespread appears to be the modification of the early adopters model. The early adopters model was modified in the high-performing schools, becoming a *limited teacher choice* model that required teachers to change their instructional methodologies or use of technology (or both) and giving them a choice as to how their instruction would change.

The *limited teacher choice* model was one that required school leaders to change certain personnel policies, supports, and schedules. These changes included teachers' professional goal selection and assessment methods, school schedules, professional development requirements,

and expectations and opportunities for teachers to share information about their classroom practice. A school's transition from an early adopter to a limited choice model appears to have been essential in generating change that had a school wide impact.

Section 3 describes implementation strategies among the higher performing schools, using the ADKAR model as a framework. This model considers change to be a process consisting of five elements, each of which must be addressed for change to occur. The change model does not prescribe strategies but does articulate that strategies associated with each element of the change process should be implemented. Among the higher performing schools, highly engaged school leaders and qualified and well-positioned project coordinators had the authority to guide the grant—especially the professional development aspect. The following is a summary of key reported strategies in the higher performing schools related to the change model:

- *Build awareness* of the need for change through shared readings and discussions.
- *Create the desire* for change by establishing structures, policies, and supports in the school that reflect the direction the school is moving toward; giving the project coordinator the authority to drive the grant; including teachers in the change process through project teams; allowing teachers choice (consistent with the limited choice implementation process); and addressing resistance.
- *Develop knowledge* related to the change by providing frequent and multiple opportunities for on-site learning and requiring teachers to participate.
- *Foster ability* by providing teachers with individual support, creating a safe environment in which teachers are encouraged to take risks, while monitoring performance to ensure that change among teachers has occurred and is supported.
- *Reinforce change* by maintaining policies and schedules that support the change, recognizing accomplishments, and hiring administrators and teachers who are inclined to facilitate the intended change.

The 2013 interview data indicate that the schools not included in the high-performing group did not implement the change model strategies as comprehensively as the schools in the high-performing group. Some of the schools shared a vision, but reasons for the change were not communicated; the structures, policies, and supports that underlie change were not established; knowledge development was limited because of the lack of mandates; and performance was not monitored to ensure that change in instruction was taking place.

The 2014 respondents in the high-performing schools described challenges and risks going forward. It is probable that these challenges and risks are common to all of the schools, and include faculty and administrator turnover; financial uncertainty; key stakeholders (teachers, parents, and board members) not understanding or trusting the transition to student-centered learning; overburdened teachers who don't have enough time for planning and designing more-individualized, skills-based instruction; and the enduring legacy of facilities and schedules planned for teacher-centered instruction.

Despite these current and potential challenges, interview respondents in the high-performing schools had established systems and supports that were likely to stabilize the changes made during their participation in the SOTF initiative.

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