



# The School System Transformation Process: Guidance for Paradigm Change in School Districts

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## Abstract

The School System Transformation (SST) Process is process guidance for school districts to transform from the teacher-centered Industrial-Age paradigm to the learner-centered Knowledge-Age paradigm of education. It is heavily based on systems thinking and takes an “ideal design” approach (Banathy. *Systems design of education: A journey to create the future*. Englewood Cliffs, NJ: Educational Technology Publications, 1991) to system transformation. It does not attempt to say what the information-age paradigm should be like but instead offers guidance

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for a process whereby the stakeholders in an educational system build consensus on what their system should be like and then engage in steps to realize that vision. This chapter describes the context and need for the SST Process, the values and core ideas or principles that underlie it, its sequential guidance for the transformation process, the activities that should be continuously addressed during the process, and suggestions for what leaders should and should not do.

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**Keywords**

Paradigm change · Systemic change process · Educational transformation · Systems thinking

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## Introduction

This chapter provides a detailed description of a methodology especially designed to create and sustain systemic transformation in P-12 school systems. The methodology is called the *School System Transformation (SST) Process*. Prior to describing the methodology, the context for the design, development, and implementation of the methodology is described. The description of the context reiterates and reinforces concepts and principles of systemic transformational change that are discussed throughout this major reference work.

The environmental context for the SST Process is important because it provides a rationale for the design, development, and implementation of the SST Process. The description of the context (1) describes the confusion about the definition of systemic change, (2) clarifies how school districts function as complex systems, (3) identifies four complementary changes that must occur to transform a school system, and (4) provides a rationale for why a school district is the preferred unit of change. Additionally, the description of the context characterizes transformational change as a “wicked problem” and outlines knowledge and skill sets that we believe are required for effective change leadership.

## Systemic Change

There is a resurgence of interest in systemic change, including proposed federal legislation that recognizes the importance of systemic change for helping school districts create twenty-first-century learning environments (i.e., the Achievement Through Technology And Innovation [ATTAIN] Act), as well as legislation in various states, such as New Hampshire and Maine. The resurgence of interest notwithstanding, there is still a significant lack of understanding about the meaning of systemic change, and there is robust pushback against that approach from advocates of the dominant paradigm for improving schooling – the piecemeal, school-based improvement paradigm. Because of this lack of understanding, we start by clarifying the multiple meanings of the term, systemic change.

Several different definitions of the term used in the school improvement literature comprise the main source of this confusion. The following definitions were identified by Squire and Reigeluth (2000):

1. *Statewide policy systemic change*: Creating statewide changes in tests, curricular guidelines, teacher certification requirements, textbook adoptions, funding policies, and so forth that are coordinated to support one another. This meaning is how policymakers typically think of systemic change.
2. *Districtwide systemic change*: Producing changes in curriculum or programs throughout a school district. This meaning is how P-12 educators typically think of systemic change.
3. *Schoolwide systemic change*: Creating a change throughout an individual school building. This is the definition used by school-based improvement advocates.
4. *Ecological systemic change*: Making changes based upon a clear understanding of interrelationships and interdependencies within a system and between the system and its external environment. Change leaders subscribing to this view recognize that significant change in one part of their system requires changes in other parts of that system. This is the definition accepted by “systems thinkers” such as Peter Senge, Russell Ackoff, and Bela Banathy.

The first three definitions apply some principles of systemic change, but they do not create paradigm change. The fourth definition is true systemic transformational change, but it does not always create paradigm change. Thus, a type of ecological systemic change not explicitly described by Squire and Reigeluth is systemic transformational change, also called paradigm change.

**Systemic transformational change.** Eckel, Hill, and Green (1998) define this special form of systemic change as one that:

- Alters the culture of the institution by changing select underlying assumptions and institutional behaviors, processes, and products
- Is deep and pervasive, affecting the whole institution
- Is intentional
- Occurs over time

Duffy (2010) added the following two requirements to the above definition:

- Creates a school system that continuously seeks an idealized future for itself
- Creates a future system that is substantially different than the current school system; that is, the system must be transformed to perform within a different paradigm.

We use the term *transformational change* or *paradigm change* to refer to this kind of systemic change. The SST Process focuses on this kind of systemic change because we believe there is no other way to recreate school systems for success in the twenty-first-century Knowledge Age.

## School Districts Are Complex Systems

There is a stunning lack of understanding about how school districts function as complex, organic, and adaptive systems. This lack of understanding produces change efforts that are unable to create and sustain deep and broad whole-system change in school districts. This lack of understanding also underpins the dominant approach to improving schooling, that is, the piecemeal, one-school-at-a-time approach.

All complex systems are composed of parts or subsystems. The parts have parts, too. A classroom is part of a school, a school is part of a school district, a school district is part of a community, which is part of a state, which is part of a region, which is part of a country, which is part of our planet, which is part of the universe. But trying to improve a system that complex is beyond human capacity. Instead, Merrelyn Emery says that we need to target the “system of interest” for the purpose of managing the transformation process. To identify the system of interest, Emery (in Emery & Purser, 1996) says we need to draw a circle around all the departments, programs, and so on that must collaborate daily and closely to deliver a product or service to a customer. For the purpose of improving teaching and learning, the circle goes around what we traditionally call a school district. Everything outside that circle is the school district’s external environment.

Another phenomenon that influences the performance of school districts is synergy. Synergy happens when parts of a system interact to create an effect greater than all the parts can create in isolation. People commonly describe this phenomenon as “the whole is greater than the sum of its parts.” Many contemporary approaches to improving education in school districts, however, seem to distort this principle to become “the whole is equal to the sum of its parts.” This distortion is implied by how school-based improvement advocates ignore the whole system and focus only on the “parts” (piecemeal change), that is, they focus exclusively on improving education within individual parts of schools and classrooms and ignore how those schools, classrooms, and academic and nonacademic support functions are and must be interconnected to educate children. The unstated assumption seems to be that if only enough parts are fixed, then the performance of the whole school system will improve. Furthermore, the implied operating principle of school-based improvement seems to be that the schools and classrooms are and should be relatively independent of the whole system. However, complexity theory tells us that when one part of a system is linked to other parts, a significant change in one part will succeed only if there are significant complementary changes in the connected parts. Failure to grasp the significance of this systems principle explains why school-based improvement and piecemeal reforms have not yielded significant improvements in the overall performance of school systems.

Changes made in individual schools and practices are and must be linked to corresponding changes made to other practices and schools in a school system. This is an important principle because a child’s education is more than what he or she learns in a particular grade or level of schooling. His or her learning is the cumulative effect of P-12 learning (in a P-12 district), even if a child moves from one district to

another. Furthermore, the quality of education that a child receives in any particular grade or level of schooling has a direct effect on his or her future learning. For example, studies (e.g., Sanders & Rivers, 1996) suggest that when children have two or three bad teachers in a row, those children continue to learn, but they never catch up to their peers who had better teachers. These learning deficits are a reflection of a systems principle called “upstream errors flow downstream.” In other words, mistakes that are made early in a work process (in teaching and learning at the elementary education level), if not identified and corrected, will flow downstream and create even greater problems later on in the work process (in teaching and learning at the middle and secondary education levels). In systems, upstream errors always flow downstream, and learning deficits always accumulate if not corrected.

So, it can be argued that if schools and classrooms in a school district are treated as if they are loosely coupled or relatively independent of each other, they should not be. Schools and classrooms are not loosely coupled because a child’s education requires interdependence among various parts of a school system. Since the education of a child requires interdependence among various parts of a school system, the school-based improvement strategy is insufficient, because it reinforces and sustains the disconnections between and among a school system’s parts, that is, it creates a lack of synergy (if not downright incompatibility) among schools and programs within the system. This fact explains why the promised improvements offered by school-based improvement advocates often have failed to improve teaching and learning throughout entire school systems, and where school-based improvement has created improvements, those changes produced temporary pockets of excellence (in the schools that improved) while leaving pockets of mediocrity (in the schools that maintained average performance) and pockets of despair (in the schools that continued to fail) all within the same system.

Finally, another characteristic of complex systems is that if fundamental changes are made to a few parts of a system and not to others, the changed parts become incompatible with the remaining parts of the system. In response to this incompatibility, the unchanged parts apply significant pressure on the changed parts to revert to their pre-change status, thereby enacting that famous French adage, “the more things change, the more they stay the same.” An example of this phenomenon is frequently observed in contemporary approaches to school-based improvement; for example, many wonderful school-based changes such as the Saturn School of Tomorrow (Bennett & King, 1991) became incompatible with the rest of the school district, and they were ultimately forced to change back to their pre-change state.

## **Four Shifts Are Required for Transformation**

The literature on systemic change in organizations (e.g., Ackoff, 1974; Checkland & Scholes, 1990; Nevis, Lancourt, & Vassallo, 1996; Pasmore, 1988; Pava, 1983; Trist & Murray, 1993) suggests that change leaders need to simultaneously consider four interconnected shifts to create and sustain transformational change. The first three paradigm shifts are created simultaneously as educators think along three “change

paths” (Duffy, 2002, 2003). The fourth shift is created as educators use the principles of systemic transformational change that are designed into the SST Process. The four shifts are:

- *Shift 1:* Due to fundamental changes in society, the core work processes – teaching and learning – must be transformed to a paradigm that is customized to learners’ individual needs and is focused on attainment of proficiencies (Reigeluth, 1994; Reigeluth & Karnopp, 2013). Also, the support work processes must be transformed to best support the primary work processes. This shift happens along Path 1 – transform the system’s core and support work processes.
- *Shift 2:* The school system’s organizational and social infrastructure (e.g., organization structures and culture, communication practices, job descriptions, reward systems, and so forth) must be transformed from a command-and-control organizational design to a participatory organizational design. This shift happens along Path 2 – transform the system’s internal organizational and social infrastructure.
- *Shift 3:* The relationship between the school system and its systemic environment must be transformed from an isolative, crisis-oriented, and reactive stance by the school system to a collaborative, opportunity-seeking, and proactive stance. This shift happens along Path 3 – transform the system’s relationship with its external environment.
- *Shift 4:* To transform school systems, there must be a shift in change process from the piecemeal, one-school-at-a-time approach to change to systemic transformational change. This shift happens as educators use the SST Process.

The fourth shift is the vehicle by which the other three shifts are made. Although those other three shifts must be made simultaneously, given the interdependencies among parts of a school system, changes in the teaching-learning process (the core work process that is part of shift 1) should drive the nature of the changes created for shifts 2 and 3 (especially for shift 2). Complementary changes for shifts 1 and 2 are important because if changes are only made to the work processes and not to the infrastructure, this strategic error can create situations where school systems have the most powerful teaching and learning model in the world, but their structures are counterproductive, and their teachers are demotivated, dissatisfied, and inappropriately skilled. Teachers experiencing these conditions will not and cannot use that powerful new model in effective ways.

Changes for shift 3 are required for gaining and maintaining external political support for a district’s transformation journey. Without this political support, change leaders will not be able to get the human, technical, and financial resources they need to launch and sustain their district’s transformation. Further, the literature on organization effectiveness (e.g., Daft, 2006) tells us that to be effective, an organization must have a positive, proactive relationship with its environment. Creating this kind of relationship is one of the goals of shift 3.

Finally, the fourth shift is required to move a school system away from the piecemeal approach to change to a whole-system transformation approach. The

systemic transformation approach is nonnegotiable for the first three shifts to be realized.

## The School District as the Preferred Unit of Change

The ultimate goal of transformational change is to transform an entire school district to align with the educational needs of the Knowledge Age society. Since individual schools and classrooms are such interdependent parts of a school district, they are inappropriate as the unit of change for achieving this goal. The appropriate unit of change for transformation is the whole school district.

We recognize that changing a whole district all at once is far more difficult than changing an individual school and that making fundamental (paradigm) changes is far more difficult than making piecemeal reforms. To ease this, transformational change should start small in a district and then spread throughout the entire system. Finding that ideal starting point for transformational change requires the application of at least two systems change principles, one that disarms resistance to change and one that capitalizes on leverage.

**Disarm resistance.** Resistance can be reduced through enlisting innovators and early adopters (Rogers, 2003) in the school district to blaze the trail for the rest of the stakeholders and empowering all stakeholders to make the decisions about what their new system will be like. Innovators and early adopters can transfer to one or a few schools (depending on the size of the school district), where they can operate under a separate central administration office that has the power to change district-level policies and procedures for the transformed schools. This is sometimes called the “parallel systems approach” because the schools transforming to the new paradigm are protected from the reversionary influences of the old-paradigm administrative system (Reigeluth & Karnopp, 2013).

**Capitalize on leverage.** Leverage is recognition that some parts of a system exert more powerful influences on other parts of the system. The approach to transformation called “leveraged emergent design” (Reigeluth, 2006b; Rittel & Webber, 1973) entails starting by changing parts of the system that can exert more powerful leverage on unchanged parts of the system than those unchanged parts can exert on returning the system to its pre-change state. With this approach, it is only necessary to design a few high-leverage parts and then help other new parts to emerge through the process of making those high-leverage parts work well. Starting with a few high-leverage changes can make the whole systemic change process considerably quicker and easier and reduce the planning time needed before implementation begins.

An example of a high-leverage starting point is student assessment and records. If assessment is criterion-referenced (comparing students to a mastery criterion), rather than norm-referenced (comparing students to each other), and mastery is required of every student, and student records are a list of all competencies mastered so far, rather than grades that tell you nothing about what each individual has learned, then many other aspects of the system are immediately forced to change: the teacher’s

role (from sage on the stage to guide on the side), the student's role (from passive, teacher-directed to active, self-directed learner), technology's role (from primarily supporting the teacher to primarily supporting the learner), planning for learning (from teacher lesson plans to student personal learning plans), instruction for learning (from lecture-based and one-size-fits-all to project-based and personalized), and much more. Those changes will necessarily emerge once the high-leverage changes are made.

## School System Transformation as a "Wicked Problem"

Because school districts are complex systems that must engage successfully in four shifts (described earlier) to create and sustain transformational change, transforming school systems is an example of what Rittel and Webber (1973) called a "wicked problem." A wicked problem has incomplete, contradictory, and changing requirements. Solutions to them are often difficult to create because of the complex interdependencies that created the problems in the first place; for example, while trying to solve a wicked problem, the solution may reveal or create other, even more complex problems.

Ackoff (1974) described wicked problems as "messes." He said, "Every problem interacts with other problems and is therefore part of a set of interrelated problems, a system of problems . . . I choose to call such a system a mess" (pp. 20–21). Pava (1986) also commented on these kinds of problems. He said:

Ill-defined, complex problems often require systematic change in behavior and values. However, the uncertainty of such issues polarizes different stakeholders and impedes collaborative solutions. Traditional approaches to managing change are unable to deal with these situations, where both complexity and conflict are intensified. (Online document)

Bar-Yam (2004) tells us that there is no one way to solve wicked problems and there are no "best practices" that apply to all situations. Any workable solution, Bar-Yam says, has to be related to the specific characteristics of the problem (p. 15). Yet many contemporary school reform "best practice" models are heralded as "one-size-fits-all and all-you-have-to-do-is-replicate-it" approaches. Almost without exception, the replication of the "best approach" fails; for example, of the 22 school systems that received training from the Re-Inventing Schools Coalition (RISC) on how to replicate Alaska's Chugach School District's successful transformation, which won that district one of the first Baldrige quality awards in education, only three succeeded in replicating Chugach's success. Why? Because each school district has a unique set of characteristics and problem sets and replication of some other district's successful change effort predictably fails because it does not fit the system that tries to adopt and replicate the "best practice."

Instead of trying to replicate some other district's successful change effort, a school system needs to invent its own unique solutions for – or at least adapt others' solutions to – its unique characteristics and problem sets. Instead of trying to find and



replicate a school reform model, they need to use a methodology that will help them identify their unique characteristics, explore their unique problem sets, create an idealized vision for their future, and engage in a process of invention, design, and/or adaptation that will lead them to their idealized future. The SST Process is such a methodology.

## **Knowledge and Skill Sets for Effective Change Leadership**

Given the complexity of School System Transformation, change leaders need special knowledge and skill sets to lead this kind of change (Duffy, 2010). These knowledge and skill sets are found in:

- A change vehicle (a specially designed methodology and set of tools for creating and sustaining transformational change)
- A map and compass (knowledge of systems theory, systems dynamics, complexity and chaos theory (Wheatley, 1999), and knowledge of what needs to change)
- Superior change navigation skills that include:
  - *Mastery of Awareness* – becoming skillful in collecting, analyzing, interpreting, and reporting “need data” (that push people toward change) and “opportunity data” (that draw people toward change)
  - *Mastery of Intention* – becoming skillful in creating and communicating a compelling and emotionally powerful vision of an idealized future for a school system
  - *Mastery of Methodology* – becoming skillful in using a methodology especially designed to create and sustain transformational change and the tools that are part of that methodology

Given the confusion about the meaning of the term “systemic change,” the characteristics of school districts as complex systems, the four complementary shifts described earlier that must be made to create and sustain transformational change, the whole-school system as the preferred unit of change, the nature of transformational change as a “wicked problem,” and the knowledge and skill sets required for effective change leadership, change leaders who want to transform their school systems need a methodology especially designed in response to this complexity so they can create and sustain transformational paradigm change. The School System Transformation (SST) Process is designed to meet this need.

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## **The School System Transformation (SST) Process**

Working without knowledge of the other’s work, the authors each designed and constructed a methodology to create and sustain transformational change in school districts. Both of us drew the concepts and principles that formed the framework of our methodologies from the literature on systems thinking, systemic change,

complexity and chaos theory, organization theory and design, organization development, and learning organizations. Reigeluth's methodology (Jenlink, Reigeluth, Carr, & Nelson, 1996, 1998; Reigeluth, 2006a) was called the Guidance System for Transforming Education (GSTE), and Duffy's methodology (2002) was called Step-Up-To-Excellence (SUTE – originally called Knowledge Work Supervision in Duffy, Rogerson, & Blick, 2000).

Once we learned of each other's work, we noticed the similarities and differences, and we decided that we should blend our methodologies to design a new hybrid methodology. That hybrid methodology is the School System Transformation (SST) Process, and it was tested and improved in a 10-year project to facilitate the transformation of the Indianapolis Metropolitan School District of Decatur Township in Indiana.

The SST Process has three major parts: (1) a set of values, core ideas, and principles that underlie the process; (2) process knowledge, which is a sequenced set of stepping stones for navigating the transformation journey; and (3) continuous events that must constantly or periodically take place throughout the process.

## Values, Core Ideas, and Principles

The **values** that underlie the SST Process include:

- Putting students first in all decisions
- Improving the quality of life for the adults who work in schools
- Creating healthy relationships between a school system and its environment
- Building a shared vision among all stakeholder groups
- Exemplifying social responsibility, collaboration, consensus building, full disclosure of concerns, trust, respect, responsibility, commitment, self-criticality, flexibility, learning, systemic thinking, and dialogue as tools for change in mental models or mindsets
- Understanding societal evolution and the need for coevolution of educational systems
- Building readiness and capacity for transformation

The **core ideas and principles** that underlie the Process include the following:

- (a) **Change in mental models** or mindsets is the most important result of any systemic transformation process, because the competency-based, personalized paradigm of education represents a different mental model about education than does the time-based, standardized, sorting-focused paradigm. Without a change in mental models, stakeholders will not support the changes, and they will not understand the changes well enough for the new paradigm to succeed. Therefore, the process must be a learning process as well as a decision-making process.
- (b) **Broad stakeholder involvement.** A large number of stakeholders must undergo change in mental models, or there will be more resisters than

- supporters of the educational changes. Stakeholders can only evolve their thinking if they are involved in the change process.
- (c) **Stakeholder ownership.** Nobody likes being changed. People are committed to change over which they feel a sense of ownership. Commitment is essential for change as complex as systemic transformation of a school district.
  - (d) **Process over product.** Given the first two core ideas, the actual decisions made about the new system (the “product”) are less important than the experiences that the participants have during the change process, for it is the experiences that help people to change their thinking or mental models about education.
  - (e) **Consensus-building process.** Decisions should not be made autocratically nor even democratically. Majority rule creates winners and losers. Decisions should be made through a process of learning and consensus building.
  - (f) **Participatory leadership.** Stakeholder ownership cannot be generated without the participatory/developmental/transformational/servant paradigm of leadership, which stands in contrast to the top-down, command-and-control paradigm of leadership that predominated during the Industrial Age and still predominates in schools. Participatory leadership generates not only greater commitment to the changes but also more creativity in the design of the new paradigm of education.
  - (g) **Leadership and political support.** As Industrial Age systems, current educational systems are run by elected and appointed leaders. They must support the paradigm change, or it will not happen.
  - (h) **Readiness and capacity.** Capacity building should pervade the entire transformation process. Each part of the process should not be undertaken until a sufficient level of readiness is reached. Capacity includes change process expertise, money to free up participants’ time, and various other resources and structures.
  - (i) **Culture.** Culture is important in two ways. First, as Michael Fullan (2001, 2003) argues, systemic transformation is reculturing. Reculturing is a result of the change process. Second, systemic transformation requires a certain kind of culture for it to succeed. It is an essential part of the change process. Some of the most important elements of the culture include empowerment, inclusion, consensus building, collaboration, systems thinking, trust, disclosure, and no blame.
  - (j) **Idealized design and invention.** The most important challenge of a systemic transformation process is to help stakeholders transcend their current mental models about education (see, e.g., Banathy, 1991, 1996; Senge, 2000). To do so, stakeholders must be encouraged to think in the ideal about what their educational system should be like (Ackoff, 1981). This makes the process an invention process more than a decision-making process.
  - (k) **Emergence and leverage.** A new paradigm of education is far too complex and time-consuming to invent all at once, before implementing it. However, if a fundamental change is made in just one part of a system, it will be incompatible with the rest of the system, which will work to change it back. Therefore, the initial changes to be made must be of high-enough

leverage to exert more influence on changing the rest of the system than the rest of the system exerts on changing them back. After the initial high-leverage changes are made, the remaining changes “emerge” as they are found helpful to support the initial changes.

- (l) **Redesign learning experiences first.** The design of the new paradigm of education must begin by redesigning the learning experiences and then move on to designing the instructional systems that best support those learning experiences, then the administrative systems that best support those instructional systems, and finally the governance systems that best support the rest of the new paradigm (Banathy, 1991).

## Process Knowledge

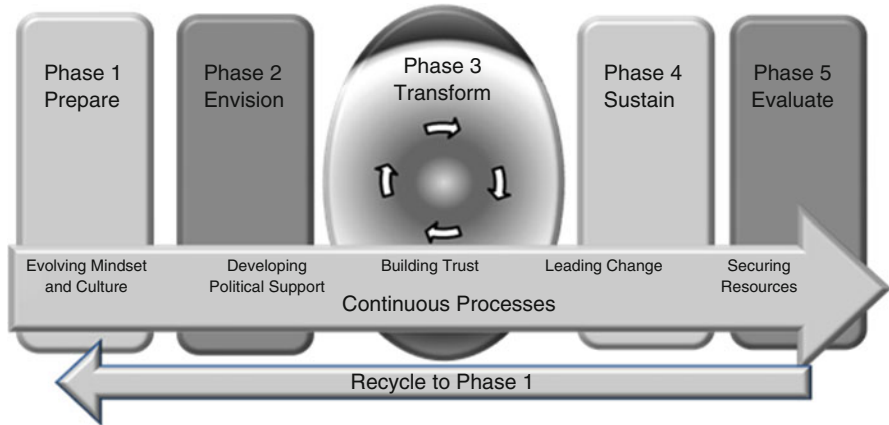
The sequential elements of the SST Process fall into five phases as shown in Fig. 1. The five phases should not be thought of as a lockstep sequence. Instead, they should be perceived as a set of flowing activities that converge, diverge, and backflow from time to time and do so repeatedly until the entire education system is transformed. Further, transformational change is not a one-time event. It should be a cyclical, lifelong journey with periods of continuous improvement (piecemeal change) between periods of transformational change. The cyclical nature of transformational change is built into the SST Process and is portrayed as the arrow in Fig. 1 with the words “Recycle to Phase I.” This level of complexity was deliberately built into the design of the process so that the process would align with the complexity of school systems and their external environments (a principle derived from complexity theory).

### Phase 1: Prepare

Preparing a system for transformational change is absolutely critical to the success of a transformation journey. Kotter (2012) identified eight reasons for failed transformational change. Six of those eight reasons are linked to inadequate or short-circuited preparation of the system. There are two major steps in the preparation process: (1) initiating the effort and (2) developing a prelaunch team to build district capacity for the transformation process. However, as with the phases, the steps and the activities that make up each step should not be thought of as a lockstep sequence. Instead, they should be perceived as a set of flowing activities that converge, diverge, and backflow from time to time and do so repeatedly throughout the phase. Also, activities during a step often need to be adapted to local conditions. Some activities listed here may not be needed, while some activities not listed here may be needed. But we caution that extreme care and thought should precede any changes to these guidelines.

#### Step 1.1. Initiate the Systemic Transformation Effort

This step entails selection of a school district and an external facilitator. If the school district is initiating the systemic transformation, it selects the external facilitator and



**Fig. 1** The school system transformation protocol

ensures that the facilitator is well qualified and prepared for the process. Criteria for facilitator selection are indicated in the self-assessment tool for facilitators shown in Table 1. Also, the facilitator makes sure the school district is at a sufficient level of readiness to embark on the journey (see Appendix A). If an external entity is initiating the transformation (e.g., a foundation, university, or government entity), then it selects both the facilitator and the school district, ensuring that both are qualified and at a high level of readiness to embark on the journey.

Next, the facilitator and school district engage in a brief courtship to make sure they are compatible with each other. This process includes ensuring that leaders of all stakeholder groups understand the role of the facilitator and the responsibilities of the participants in the district. This includes ensuring **political support** for systemic transformation by the leaders of all the stakeholder groups, which culminates in all leaders and the facilitator signing a contract to initiate the transformation journey, including responsibilities, resource needs, and funding. The contract should include:

- Desired outcomes
- Expectations (process activities and timelines)
- A stipend for the facilitator or an institutional exchange agreement
- Human resource needs, participation roles, and access for all parties
- Money for retreats and participant time
- Anticipated problems and how to deal with them
- How to revise or terminate the agreement

**Step 1.2. Develop a Prelaunch Team and District Capacity**

This step entails the facilitator helping to forming a team to assess and enhance district capacity to undertake the transformation journey. Members typically include the superintendent, an influential school board member, the head of the teachers’ association, an influential principal, a powerful central office person who is likely to

**Table 1** Self-assessment tool for facilitators showing criteria for facilitator selection

<b>Categories of Capabilities</b>
Rank the following three categories, using 1 as highest priority for your development and 3 as lowest. Then tentatively put an H (for high) next to each subcategory that you might benefit most from working on. Each subcategory is addressed in greater detail in step 5.
<b>Knowledge/skill category Ranking:</b> Often districts have a history of working with consultants in a <i>solve the problem for us</i> capacity or <i>doctor-patient</i> relationship where a diagnosis is provided and a treatment prescribed. Facilitation differs from consultation in that you, as the facilitator, are not the resident expert but a <i>process guide</i> . Whereas consultation calls for an expert knowledge base, generally in one or a few areas, facilitation calls for you to be well grounded in many knowledge/skill areas, including: <ul style="list-style-type: none"> <li>Systems thinking</li> <li>Educational systems design</li> <li>Language of change</li> <li>Dialogue and design conversation</li> <li>Group psychodynamics</li> <li>Evaluation</li> </ul>
<b>Personal Growth Ranking:</b> A second category of importance to facilitation relates to your own personal growth, which includes: <ul style="list-style-type: none"> <li>Suspending biases and judgments</li> <li>Deep listening</li> <li>Self-reflection</li> <li>Self-inquiry</li> <li>Disclosure</li> <li>Managing transitions</li> <li>Global consciousness</li> <li>Self-renewal</li> </ul>
<b>Process Engagement Ranking:</b> A third category of importance relates to process engagement, which includes: <ul style="list-style-type: none"> <li>Individual, team and organizational learning</li> <li>Leadership</li> <li>Managing change</li> <li>Creating contextual understanding</li> <li>Building and sustaining community</li> </ul>

become the Assistant Superintendent for Transformation, a highly respected non-teaching staff member, and an influential parent leader. One purpose of this team is *to develop its own culture and capacity* for systemic transformation that can survive the team's expansion into a 30-member Leadership Team, because forming such a big team at once would result in the team developing a culture and dynamic of its own that may be detrimental to the systemic transformation process. Capacity includes an understanding of systems thinking; the systemic change process, systems design, dialogue, and small-group facilitation; and adoption of a set of values for the transformation process. It will be helpful for the Prelaunch Team to find and create learning tools that it can reuse throughout the transformation journey.

Another purpose of the Prelaunch Team is *to conduct a political assessment* of top formal and opinion leaders in the district and to conduct a *community analysis* to identify where support can be found for the transformation initiative. Third, it helps

the *School Board* to develop a culture and capacity for systemic transformation. Fourth, it helps the top leadership in the district to secure *external funding*, if needed, and reallocate some *internal funds* for the systemic transformation effort. Fifth, the Prelaunch Team helps in the selection of an *Assistant Superintendent for Transformation*, the facilitator further develops that person's capacity to coordinate and inspire systemic transformation, and the superintendent places all current change efforts under that person's purview. If possible, this person should be on the Prelaunch Team from the beginning. Initially, this could be a part-time responsibility, but plans should be made for it to become full time as the transformation process accelerates. This should be one of the most powerful and highly respected people in the Central Office. Sixth, the Prelaunch Team forms a *District Facilitation Team* to help the Assistant Superintendent and develops its culture and capacity for systemic transformation. Finally, the facilitator signs a *contract* with the Prelaunch Team and School Board for Step 2.1, including responsibilities, resource needs, and funding.

## **Phase 2: Envision**

In this phase, change leaders design and implement a collection of transformation activities to help educators in the system envision an idealized future for their school district, expand their capacity for transformation, decide on a strategy for design and implementation of their new system, and develop the capacity of teams to do the design and implementation work.

### **Step 2.1. Develop a District-Wide Ideal Vision and Expand Capacity**

First, the Prelaunch Team expands into a *Leadership Team* of about 30 people and develops its culture and capacity for systemic transformation. Its functions include the following: (a) build a convincing case for the needs and opportunities for systemic transformation (appreciative inquiry), (b) identify best practices and other transformation pioneers, (c) find funding if necessary, and (d) consider creating a parallel system. The Leadership Team should include one teacher from each level in each academic cluster (or feeder system – a high school and all schools that feed students to it), one principal from each level in each academic cluster, non-teaching staff, board members, parents, community leaders, union president, and central office administrators (including the chief financial officer and the publicity person), as well as all the Prelaunch Team members.

During this team expansion, the Prelaunch Team transforms into a *Steering Committee* that provides strategic thinking for the Leadership Team. Members must commit to attending every meeting and must meet far more often than the Leadership Team. Also, the District Facilitation Team organizes and conducts a *Community Engagement Conference* for all stakeholder groups in the district (e.g., teachers, administrators, non-teaching staff, parents, employers, local politicians, and state department of education representatives) to build understanding of systemic transformation and why it is needed and systemic thinking and why it is essential to systemic transformation. Interested participants from the Community Engagement Conference are organized into *Input Groups*, each of which has two Leadership Team members to share what happens in each Leadership Team meeting

and get input from the other stakeholders to take back to the next Leadership Team meeting. This helps expand the opportunity for mindsets to change and provides more input for the Leadership Team’s visioning process. The District Facilitation Team also helps all school, district, and supporting-work-unit leaders to become transformational leaders (or servant leaders), develops their culture and capacity for systemic transformation, and provides two-way communication between them and the Leadership Team, allowing them to provide input for the vision and helping them to evolve their mindsets in tandem with Leadership Team members. Table 2 shows all the teams that are formed during the SST Process.

After sufficient learning has taken place in the Leadership Team, Input Groups, and supporting-work-unit leaders, the Leadership Team organizes and conducts a *System Engagement Conference* for all members of the Leadership Team, Input Groups, and supporting-work-unit leaders to develop a district-wide ideal vision for the school district. This vision includes features for two key subsystems and for how the district interacts with its broader environment. The two key subsystems are (1) the district’s core work (teaching and learning) and supporting work (administration and support services such as transportation and food services) and (2) its internal social infrastructure (such as culture, policies, roles, and communications).

Next, the District Facilitation Team, with guidance from the Leadership Team, organizes a series of *school-based community forums* to develop broad stakeholder ownership of, and commitment to, the ideal vision, which means allowing forum participants to offer revisions to the vision. Then the Assistant Superintendent for Transformation and the District Facilitation Team assume responsibility for *all current change efforts* in the district under the umbrella of the transformation effort and align each with the vision. Finally, the facilitator signs a *contract* with the Leadership Team and School Board for the next step of the transformation process, complete with responsibilities, resource needs, and budget.

### Step 2.2. Develop Cluster Capacity

Teachers fall on a continuum from innovators and early adopters to laggards (Rogers, 2003), and many laggards will resist and even try to sabotage attempts at change. Furthermore, transformation is a resource-intensive process, so it is seldom

**Table 2** Teams in the SST Process

<b>District-Level Teams</b>
Prelaunch Team – becomes Steering Committee
District Facilitation Team
Leadership Team
Input Groups (for Leadership Team)
<b>Cluster-Level Teams</b>
Cluster Design Teams
<b>School-level teams</b>
School Self-Assessment Teams – become School Design Teams
Learning Communities (for School Design Teams)
Task Forces (for School Design Teams)



advisable to help all the schools in a district change at once, unless it is a very small district. However, it is difficult for students to move from one paradigm of education to another, so it is important to view the core work process as a P-12 process. Therefore, the Leadership Team should develop a *strategy* for how many schools and which schools and teachers will be involved in the first round of transformation.

If a school district has only one high school, then one strategy is to divide each school into two smaller schools and encourage teachers and students most interested in transformation to join the new paradigm school. However, in such cases, it is very important to take steps to avoid a culture of “us versus them” developing, so the school-within-a-school that is transforming must be viewed by all as blazing a trail for the others to follow. Also, the new paradigm school must have a totally independent administrative system on both the school and central office levels. If the district is small enough, it is usually better to transform whole schools.

In a school district that has two or more high schools, there is typically a “feeder system” in which a single high school receives students from an exclusive set of elementary and middle (or junior high) schools. P-12 consistency can then be achieved by having one whole feeder system transform and encouraging teachers most interested in transformation to transfer to that feeder system. Again, that feeder system must have totally independent administrative systems on both the school and district levels.

For both the schools-within-a-school approach and the feeder-system approach, we recommend starting by transforming a minimum of P-3 or maximum of P-6 grade levels, depending on resources available, and then transforming one higher grade level each year of the ensuing transformation process. This not only helps to ensure sufficient resources for the transformation but also alleviates the problem that the longer a student has been in the time-based, teacher-centered paradigm, the harder it is for them to adapt to the competency-based, self-directed, learner-centered paradigm. Also, lower grade levels tend to naturally be more learner-centered and flexible, so transformation is easier and quicker on those levels. We use the term *cluster of schools* to refer to all those that are transforming – either the schools-within-a-school or the schools within a feeder system.

In this step the Leadership Team helps to form each cluster of schools and to capacitate a *Cluster Design Team* for the core work processes, one for all supporting work units and one for the central administration in charge of that cluster. Alternatively, there could be just one Cluster Design Team, with three committees in a smaller school district. Then the Cluster Design Team and District Facilitation Team help each school to form a small *Self-Assessment Team*, each of which conducts a school readiness analysis, develops a readiness enhancement plan, and enhances its readiness, primarily through community forums or workshops. Meanwhile, the Cluster Design Team, with help from the District Facilitation Team, prepares an overall assessment of the *cluster’s readiness*, helps coordinate its schools’ readiness enhancement plans, and develops a strategy in terms of when each school and supporting-work unit within the cluster will begin to transform (phase 3). If more than one cluster is transforming, then based on the readiness analyses, the Leadership Team develops a district strategy for school transformation, primarily by

helping the Cluster Design Teams decide when each cluster will begin to transform itself.

When ready, a Cluster Design Team conducts a *Cluster Engagement Conference* to develop a cluster framework of beliefs and ideal vision that is aligned with the district framework, with assistance from the District Facilitation Team. *Community forums* are conducted for the cluster framework. (If the district has only one cluster and is therefore using the whole-district approach, this step is skipped.)

Next, the Cluster Design Team develops a *cluster strategy* for school transformation, which addresses such questions as: Which grade levels will transform first, or will supplemental programs (e.g., after-school, weekend, or summer programs) be transformed first? Will the remaining grade levels gradually transform, one level per year? How much time will be devoted to design, development, and teacher training before implementation begins? Meanwhile, the District Facilitation Team develops its own capacity and mechanisms to support the schools in their redesign process.

Finally, the facilitator signs a *contract* with the Leadership Team and School Board for phase 3, complete with responsibilities, resource needs, and budget.

### **Phase 3: Transform**

Once the envision phase is near completion, the change process then flows into a set of transformation activities. The early transformation activities occur primarily within the units in the system targeted to begin the transformation journey. These “first to start” units are the ones at the highest levels of readiness, along with their supporting-work units. The transformation activities encompass both design and implementation, with some implementation beginning before all the designing is done.

#### **Step 3.1. Design the Learner-Centered Paradigm of Schools**

When a given school is ready and sufficient resources are available, the Cluster Design Team and District Facilitation Team help its stakeholders to form a *School Design Team*, develop its culture and capacity for systemic transformation, and continually support its endeavors to redesign its school. A *learning community* is also formed within each stakeholder group for the school, to work with the School Design Team. Each School Design Team develops a *broad strategy* for transforming its school, in close collaboration with its Learning Communities and support from the District Facilitation Team and Cluster Design Team. Then it develops an elaborated framework of *ideal beliefs and vision* aligned with the cluster framework, again in close collaboration with its Learning Communities.

Next, the School Design Team decides on a few *initial high-leverage structural changes* based on its ideal beliefs, again in close collaboration with its Learning Communities and in such a way as to develop broad stakeholder consensus (mindset change). It decides on the *learning goals* for its students, in the form of an inventory of attainments, again in close collaboration with its Learning Communities. The School Design Team develops *criteria for evaluating its success* (mostly its students’ success), again in close collaboration with its Learning Communities. It plans and tests (on a small scale) the *means* (methods, practices, and tools) for helping students

reach the learning goals, given the high-leverage structural changes, again in close collaboration with its Learning Communities. This typically includes creating *task forces* for different categories of means.

During this step, the School Design Team and the Cluster Design Team meet periodically with the Leadership Team and the School Board to ensure *political support* for their design (through consensus building and evolution of mindsets), and they work with the Support Services Design Team and the Central Administration Design Team to foster *alignment* of those systems with the School's core work design. The Assistant Superintendent and District Facilitation Team play an important role in this process.

Finally, the facilitator signs a *contract* with the Leadership Team and School Board for phase 4, complete with responsibilities, resource needs, and budget.

### **Step 3.2. Implement and Evolve the New Designs**

The School Design Team implements the initial changes. Equipment installation, resource procurement, professional development, and student orientation are parts of this stepping stone. This also includes helping teachers form and use Professional Learning Communities, conduct formative evaluations, and continually revise their systems. Additional structural changes are designed and implemented as needed during this time, using the leveraged emergent approach. Also, all teams must constantly look for old programs, policies, and practices that should be removed to make room for the new ones required by the new instructional and administrative systems.

Meanwhile, the District Facilitation Team works with *external systems* to identify incompatibilities and address them (college admissions, social service agencies, other community groups, and state officials). A team could be formed with high-level people from the state department of education, regional post-secondary admissions offices, regional schools of education, state teachers' associations, state administration and school boards associations, and so forth.

As a system's environment changes, so it also needs to coevolve. Therefore, all teams periodically redesign the new systems (school-level and district-level).

### **Phase 4: Sustain**

One of the perplexing and enduring problems associated with creating change in school systems is the challenge of sustaining those changes. Sustaining change requires engaging in a set of specific activities designed to provide educators with formative evaluation data about the effectiveness of the transformation process and outcomes, retooling the district's reward system to reinforce desirable changes, institutionalizing the change process so it becomes a permanent part of the district's operations, and creating and rewarding strategic alignment among the various schools, programs, tasks, and activities within the school system. It is also helpful if school boards develop *policies* to protect the changes from the vagaries linked to the revolving door on the superintendent's office (i.e., many districts have high turnover in the superintendent's position, and each new superintendent often sweeps

out his or her predecessor's changes and supplants those with his or her own change agenda).

Sustaining change also requires *staff development* and training to help educators continue to learn new knowledge and skills that are required by the changes. Then, educators need time to develop personal mastery in applying their new knowledge and skills. As educators engage in these learning activities, they will predictably move through a learning curve. The Professional Learning Communities mentioned in Step 3.2 are important tools for accomplishing this.

Without exception, the first movement in a learning curve is always down. This means that as educators begin learning new knowledge and skills, they will not be proficient in applying the knowledge and skills. Eventually, as they continue to learn and practice the new knowledge and skills, the downward slope of the learning curve will bottom out, and the educators will begin to increase their proficiency and move upward toward personal mastery of the new knowledge and skills. Because of the "first down, then up" learning curve, it is very important to design staff development activities that inform educators about that learning curve and to help them understand the emotional cycle of change that is inextricably connected to that learning experience (e.g., as people start applying new knowledge and skills, they will not be proficient, and this experience often stimulates feelings of frustration, sadness, or anger) and can result in abandoning the change effort before it has a chance to succeed.

#### **Step 4.1. Sustain the Changes**

Therefore, the District Facilitation Team must apply *principles of evaluative inquiry* to assess the change process and outcomes to ensure that the transformation is on track. It must also apply *principles of intrinsic and extrinsic rewards* to recognize people's efforts to support and sustain the transformation journey. Change is sustained by applying *principles of strategic alignment*.

Strategic alignment is a systematic way to ensure that everyone working in a school system is supporting the system's transformation goals and grand vision. Strategic alignment is created by linking people, priorities, practices, and processes with the districts' strategic goals and grand vision. More than anything else, strategic alignment is a structured and systematic way of ensuring that everyone in a district is committed to achieving the district's new vision by making a contribution and adding value to the educational and support services provided to children.

The importance of strategic alignment was commented upon by Rummler and Brache (1995). They said:

...we have found that everything in an organization's internal and external 'ecosystem' (customers, products and services, reward systems, technology, organization structure, and so on) is connected. To improve organization and individual performance, we need to understand these connections. (p. 15)

Schwan and Spady (1998, on-line document) also talked about the importance of strategic alignment in their comments about why strategic change failed in school districts. They said:

What's missing in most cases is a concrete, detailed vision statement that describes what the organization will look like when operating at its ideal best to accomplish its declared purpose, as well as a systematic process we call strategic alignment. Strategic alignment occurs when the structure, policies, procedures, and practices of the organization totally support the organization's vision.

They continued by observing:

The alignment of the organizational vision with the actions of those who are part of the organization is a critical step in creating real and lasting change. Such alignment is best fostered and ensured through the supervision process. Every supervisor in the district – from the superintendent to the teacher – is a linking pin. Every individual links one part of the organization to another. If the vision is lost by any pin, implementation of the vision becomes an option for anyone supervised by that pin, and in turn for anyone who reports to that pin's supervisees.

After strategic alignment is achieved, the overall performance of the district is evaluated to determine if the system is performing as intended. This is done during phase 5: Evaluate.

### **Phase 5: Evaluate**

Principles of formative evaluation are used in phase 4 to help educators sustain desirable changes in their system. In phase 5, educators apply principles of summative evaluation to assess the system's post-transformation performance.

There are several summative evaluation models in the field of education. One that is particularly suitable to the task of evaluating transformational change is Stufflebeam's (Stufflebeam, 2000; Stufflebeam & Coryn, 2014) Context, Input, Process, and Product (CIPP) model. This model has elements of systems thinking built into it, which makes it appropriate for evaluating transformational change.

It is insufficient simply to conduct a summative evaluation of a transformation journey. The results of the evaluation must be reported to key external stakeholders and to faculty and staff. This need requires change leaders to use principles of strategic communication (see Duffy & Chance, 2007). Keeping the results secret is a dangerous political strategy that almost always backfires.

#### **Step 5.1. Evaluate and Communicate**

The District Facilitation Team applies *principles of summative evaluation* to evaluate the overall transformation journey so that the desirable changes that were made are institutionalized within the system. It also applies *principles of strategic communication* to ensure that external stakeholders are informed about their system's transformation success. Finally, it *compiles and stores* evaluation data so they can be used as baseline data for future change.

## Continuous Events

Continuous events differ in one important way from the process knowledge. It is important for all participants and the facilitator to continually engage in the activities presented in each continuous event throughout the change effort. The facilitator (and eventually all the participants) needs to constantly monitor the continuous needs of a systemic change process and bolster those needs which fall below a critical threshold. Here is an overview of the continuous events for the SST Process.

**A. Engage in reflection.** In this event, participants engage continuously in individual and collective reflection as a key process in systemic change. As facilitator, you must nurture in participants (and yourself) a self-reflective ethic and self-reflection skills. It helps for all participants to keep a journal about their thoughts on the transformation process.

**B. Evaluate and improve the change process.** This event entails continuously evaluating the change process to improve it. The facilitator must nurture an understanding of systemic evaluation as a critical process for improving all aspects of the systemic change effort. Included here is an understanding of evaluation that moves beyond program evaluation models and seeks to function as a positive feedback system for learning, self-correction, and formative development of the change process. We recommend establishing formal periods for each team to review their recent process and make suggestions for how it could have been done better.

**C. Build and maintain trust.** This event entails continuously building and sustaining trust among participants, as well as between the change effort and individuals in the school system and community. The facilitator nurtures an understanding of what trust is and how trust figures into building successful relationships within and across the change effort. It is also important for the facilitator to nurture the development of skills and knowledge essential to do so. This continuous event is initiated during phase 1.

**D. Evolve mental models (mindsets) and culture.** In this event, participants continuously evolve their mindsets and culture regarding both education and the change process. As facilitator, it is critical to continuously help stakeholders, as user-designers, to develop an appreciation for, and understanding of, the need to continuously evolve their individual and collective mindsets and the implication this holds for changing culture. And the facilitator must assist them to engage in the dialogue that is essential for this evolution to occur.

**E. Sustain motivation.** This event entails teams continuously monitoring and sustaining their motivation for systemic change. Systemic change requires a sustained energy created by a balance of extrinsic motivation and deep intrinsic motivation that attends to the beliefs, and identifies with the purpose, of systemic change. As facilitator, it is important to continuously foster participants' understanding of the importance that motivation plays in the change process and develop facilitator skills and knowledge necessary to monitor and enhance their motivation.

**F. Develop skills in systems thinking.** In this event, participants continuously develop their skills and knowledge for systems thinking. You as facilitator help them to understand the interrelatedness of all the various parts of an educational system

and between an educational system and its community, and you help them to acquire the basic concepts and principles of systems theory.

**G. Develop design skills.** In this event, participants continuously develop their skills and knowledge in the theory and practice of educational systems design, especially design skills, so that they can undertake the responsibility of being user-designers for the new educational system. The facilitator assists them to understand the importance of design in a systemic change process and helps them to acquire the basic concepts, principles, and processes of educational systems design.

**H. Build and maintain political support.** This event entails continuously negotiating political issues and achieving political support for the systemic change effort. The facilitator role is to nurture an understanding of, and respect for, the politics of change and to nurture the development of necessary skills and knowledge to prepare the participants to do so.

**I. Develop and sustain appropriate leadership.** This event entails continuously evolving from a top-down, authoritarian approach to leadership to an approach that is more empowering and supportive. The facilitator nurtures an understanding of the need for and nature of this different approach to leadership for systemic change, as well as nurturing the necessary skills and knowledge to affect this evolution. It includes building and sustaining participatory models of leadership, which lead to empowerment and self-renewal.

**J. Communicate with stakeholders (two-way).** In this event, participants continuously develop their communication skills and knowledge as they apply to systemic change. Included are the importance of open communication systems, which use a common language of change, and appropriate conventions of conversation for effecting systemic change. The facilitator's role is to nurture this development.

**K. Periodically secure necessary resources.** This event entails continuously identifying and securing the types of resources essential to successful systemic change throughout the change effort. In addition to external resources, a line item should be established in the district's budget for this effort, to demonstrate its commitment to the transformation process and to enhance sustainability. The facilitator nurtures the required skills and knowledge for doing this.

**L. Periodically and appropriately allocate necessary resources.** This event entails participants continuously allocating resources to the systemic change effort. The facilitator role is to nurture skills and knowledge for identifying the resources available and maximizing the use of those resources.

**M. Develop group process and team building skills.** In this event, participants must continuously develop their skills and knowledge in group process and team building. The facilitator assists them to recognize and understand the key role that groups and teams play in effecting systemic change and the importance of those groups and teams devoting time and energy to learning to perform in a healthy and positive manner. This learning also helps to build and sustain community.

**N. Build team spirit.** This event entails developing an understanding and appreciation of team spirit in systemic change. The facilitator role is to nurture the required skills and knowledge to build and sustain team spirit.

**O. Foster conversation skills and knowledge.** In this event, participants engage in developing their skills and knowledge in the various types of conversation important to the change effort, including dialogue (generative), design, and community building. Participants continuously engage in conversation as a key process in systemic change. The facilitator must nurture in them language and conversational ethics and skills.

**P. Engage in self-disclosure.** In this event, participants continuously engage in self-disclosure as it applies to dialogue, design conversation, and other processes wherein sharing personal beliefs, assumptions, and mindsets is essential to building and sustaining a systemic change effort. The facilitator fosters an understanding of the importance of self-disclosure in systemic change and nurtures the skills and knowledge necessary to engage in self-disclosing.

**Q. Build and evolve community.** This event entails continuously developing an understanding of what a community is and how it differs from other forms of collectives, such as groups and teams. It includes developing the skills and knowledge for building and sustaining a learning community for working on systemic change.

**R. Foster organizational learning.** In this event, participants continuously develop their skills and knowledge about different types of organizational learning and how they relate to the systemic change effort. Included is developing an understanding of how individual and team learning contribute to organizational learning. Adaptive, generative, and design learning are also explored. The facilitator's role is to nurture these processes.

**S. Build an organizational memory.** This event entails developing the knowledge required to understand how schools build and maintain organizational memories over time. The facilitator helps participants examine how organizational memory contributes to resistance to change and how this memory may be used to facilitate systemic change in education.

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## Conclusion

The SST Process may seem very complex – and it is. This is because school districts are very complex organizations and paradigm change is a very complex and difficult process. There are many ways it can go wrong; so much guidance is needed to keep it on track.

However, every school district is different. Therefore, it is essential that the SST Process be used in a flexible way. Large school districts require a more complex transformation process. And even two small districts will need somewhat different transformation processes. So don't follow the SST Process rigidly but also be sure to think carefully about any deviations from it.

A systemic transformation process cannot succeed without the support of leaders, from principals and superintendents to community and even state leaders. *Principals* and other building leaders play a particularly important role when the process reaches the school level (step 2.2). It is important for them to be developmental or



participatory leaders, which entails developing a shared vision among teachers and other stakeholders of the school and empowering them to become leaders in pursuit of that shared vision. Such a leader must exhibit the values, core ideas, and principles described earlier, such as consensus building, full disclosure of concerns, trust, respect, responsibility, commitment, self-criticality, flexibility, learning, systemic thinking, and dialogue as a tool for changing mental models or mindsets.

Similarly, *superintendents* and other district leaders play a key role from the very beginning of the process. They must similarly be participatory leaders helping to develop a shared vision among all leaders and other stakeholders in the district and empowering them to become leaders in pursuit of that shared vision. These leaders must also exhibit the values, core ideas, and principles described earlier. And they must marshal the political and financial support to carry out the process.

*Community leaders* should become involved in the transformation process by participating in teams on both the district and school levels. Their input and support will do much to enhance the success of the transformation process.

Finally, *state leaders*, such as governors, chief state school officers, education committee members in legislatures, and leaders of state professional organizations related to education, can greatly enhance the success of a district transformation effort by helping to remove obstacles to the changes the district wants to make and providing resources (expertise, money, and other material resources) to support those changes.

Our society has transformed into what sociologists call the Knowledge Age, Information Age, or Digital Age. Most of America's institutions are adjusting to the requirements of this age. The one institution lagging significantly behind in this transformation is education. School systems were designed for success in the preceding age – the Industrial Age. That design, which is focused on sorting students, is inappropriate for the requirements of the Knowledge Age, and this mismatch between organization design and environmental demands is, we believe, causing many of the teaching-learning problems associated with schooling in America (e.g., the achievement gap and low performance on achievement tests). Further, Bar-Yam (2004), drawing from complexity theory, tells us that systems can only be effective when their design matches the complexity of their external environment.

School districts are complex systems. Therefore, improving the performance of school districts requires change leaders to use principles of systems theory, systemic change, chaos and complexity theory, and organization theory and design to transform districts so they can educate students for success in the twenty-first century. However, the dominant and stunningly persistent approach to improving education – the school-based improvement paradigm – does not and cannot transform entire school systems. Instead, that approach unintentionally reinforces the old Industrial Age design of school systems by tweaking parts of the system (individual schools and programs) and maintaining the overall structure of the old paradigm by never transforming the core work (the teaching and learning process).

Despite the need for transformational change in school districts and despite the efforts of early adopters to lead this kind of change, there is a dire need for more practical guidance in the dimly lit interstice between realizing the need for

transformational change and bringing it to successful fruition. The SST Process is intended to shed some light on this crucial arena, and we hope others will help expand and intensify this light.




**Note:** Portions of this chapter are based on Duffy and Reigeluth (2008), with permission of the publisher.

## Criteria for Selecting a School District

10 = Outstanding readiness!

5 = Requires a lot of work before a successful systemic change effort can begin

0 = No signs of life

	<p><b>A. Their need and purpose for change</b></p> <p>Do they recognize the need for systemic change? If so:          Why do they think they need systemic change?          What are the strengths and weaknesses of their reasons?          Are there any factors that make them hesitant to engage in systemic change?  <i>Some reasons are stronger than others, such as a concern that their children's needs or their community's needs are not being met by the schools. Weaker reasons include that everyone else is restructuring or it's a good way to get grant moneys. If a district feels that their schools are already doing a fine job and they want to "keep on the cutting edge," they may lack the will to take risks and engage in systemic change.</i></p>
	<p><b>B. Commitment to change</b></p> <p><i>History:</i> How much money has been spent on change in the last 5 years? What types of professional development efforts have occurred? What were the driving forces for these expenditures and efforts?  <i>Future:</i> How much time are the board and superintendent willing to commit to you? Are the board and administration willing to commit hard money to the change effort? Are they willing to suspend current change efforts to provide the necessary space and resources? Are they willing to go to the public to ask for support?  <i>A systemic change effort is very time consuming, threatening, and often discouraging. Strong support and encouragement from the leadership are essential to sustain the effort. Commitment to professional development may be one indicator of such support and encouragement, depending on the nature of the professional development. Willingness of the leadership to take risks and not punish "failures" is also important.</i></p>
	<p><b>C. Scope of the change effort</b></p> <p>Are they interested in a district-wide effort or just school-based efforts? <i>A school-based effort, if it is indeed systemic, will require changes on the district level for it to succeed and endure. This will likely mean changes in vo-tech, special education, and alternative education programs, as well as regular or general education.</i>          Are they willing to engage in a long-term effort? <i>Systemic change requires time – a lot of it! If they are looking for a quick fix, you have a problem.</i></p>

(continued)

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<p>10 8 6 4 2 0</p>	<p><b>F. Attitude toward themselves and the community</b>            How well do the various stakeholders within the school get along with each other? Are there apparent serious conflicts that have a history?            How well do the school and community get along? Does there appear to be a strong community involvement in the school, or are there apparent boundary issues and negative dynamics?            How willing are the school board and superintendent (and other leaders) to examine their organizational/system attitudes about change and other dynamic conflicts which present serious obstacles to a systemic change effort?  <b>Potential problems:</b> Attitudes toward you as facilitator and toward themselves as a school district and community are clear indicators of internal conflict and struggles that stand in the path of a successful relationship and endanger a systemic change process. These attitude problems may not be immediately observable, and a school board or superintendent may be reluctant to disclose the underlying issues for fear of your not coming on board.</p>
<p>10 8 6 4 2 0</p>	<p><b>G. Stability of leadership in the community</b>            The superintendent, principals, other administrators, school board, teachers' union, and parents' organization – how frequently is the leadership changing? <i>The more rapidly the leadership changes, the more difficult the change process will be, because new leaders will have to start at ground zero regarding mindset, beliefs, conceptual knowledge, and procedural knowledge about the change effort. Furthermore, they may enter with an antagonistic view of the effort that could be difficult or impossible to overcome.</i>            How harmonious are the relationships within groups (among individuals)? <i>If there is divisiveness within the district administrative council or the teachers' union or the school board, then it will be much more difficult for consensus to be reached among those groups, leadership is less likely to be stable, and there is likely to be more pressure for you to "take sides."</i>  <b>Potential problems:</b> They may not be aware of, or willing to share, imminent changes in leadership.</p>
<p>10 8 6 4 2 0</p>	<p><b>H. Communications</b>            How extensive and frequent are the communications among the various groups in the school community, and what are the tone and quality of those communications? <i>The quantity and quality of communication are essential to respect, openness, trust, and consensus, especially two-way communication.</i>  <b>Potential problems:</b> This is a difficult criterion to assess, particularly since communication may be excellent between two people or groups but not between others.</p>
<p>10 8 6 4 2 0</p>	<p><b>I. Language of change</b>            What observable language of change are people using when interacting with you and with each other? Do people seem to have a grasp of the language, and how compatible is the language with systemic change?  <b>Potential problems:</b> They may use the language appropriated from readings to convey that they are in alignment with systemic change but still lack the literacy for systems.</p>

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• Teacher – principal (building level)	• School – business						
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<div style="display: flex; flex-direction: column; align-items: center;"> <div style="width: 20px; height: 20px; border: 1px solid black; margin-bottom: 2px;"></div> <div style="width: 20px; height: 20px; border: 1px solid black; margin-bottom: 2px;"></div> <div style="width: 20px; height: 20px; border: 1px solid black; margin-bottom: 2px;"></div> <div style="width: 20px; height: 20px; border: 1px solid black; margin-bottom: 2px;"></div> <div style="width: 20px; height: 20px; border: 1px solid black; margin-bottom: 2px;"></div> <div style="width: 20px; height: 20px; border: 1px solid black; margin-bottom: 2px;"></div> <div style="width: 20px; height: 20px; border: 1px solid black; margin-bottom: 2px;"></div> <div style="width: 20px; height: 20px; border: 1px solid black; margin-bottom: 2px;"></div> <div style="width: 20px; height: 20px; border: 1px solid black; margin-bottom: 2px;"></div> <div style="width: 20px; height: 20px; border: 1px solid black; margin-bottom: 2px;"></div> <div style="width: 20px; height: 20px; border: 1px solid black; margin-bottom: 2px;"></div> </div>	<p><b>K. Resources and financial stability of the school system</b></p> <p>How sound is the system’s financial standing? <i>If it is weak, it will likely be more difficult for you to negotiate the release time and other resources that are essential to the change effort. It will also be more difficult to sustain the effort over time.</i></p> <p>How good are the nonmonetary resources available to you (e.g., expertise, space)? <i>For an effort that is to be owned and run by the stakeholders, the talents of those stakeholders will have a considerable impact on the success of the effort.</i></p> <p>Do they have a successful grant-writing officer? How successful has the school system been in obtaining grants? <i>A history of success is an indicator of the school system’s frame of mind regarding self-determination and initiative for overcoming their problems.</i></p> <p><b>Potential problems:</b> There may be a tendency for leaders to paint a rosier picture than reality if they are excited about you and your approach.</p>						
<div style="display: flex; flex-direction: column; align-items: center;"> <div style="width: 20px; height: 20px; border: 1px solid black; margin-bottom: 2px;"></div> <div style="width: 20px; height: 20px; border: 1px solid black; margin-bottom: 2px;"></div> <div style="width: 20px; height: 20px; border: 1px solid black; margin-bottom: 2px;"></div> <div style="width: 20px; height: 20px; border: 1px solid black; margin-bottom: 2px;"></div> <div style="width: 20px; height: 20px; border: 1px solid black; margin-bottom: 2px;"></div> <div style="width: 20px; height: 20px; border: 1px solid black; margin-bottom: 2px;"></div> <div style="width: 20px; height: 20px; border: 1px solid black; margin-bottom: 2px;"></div> <div style="width: 20px; height: 20px; border: 1px solid black; margin-bottom: 2px;"></div> <div style="width: 20px; height: 20px; border: 1px solid black; margin-bottom: 2px;"></div> <div style="width: 20px; height: 20px; border: 1px solid black; margin-bottom: 2px;"></div> <div style="width: 20px; height: 20px; border: 1px solid black; margin-bottom: 2px;"></div> </div>	<p><b>L. Business support for change in the schools</b></p> <p>How willing are the local chamber of commerce and local businesses and foundations in general to commit resources to a systemic change effort? <i>To the extent that they are interested in systemic change in the schools, the change effort will be more likely to get the resources it needs to succeed.</i></p> <p><b>Potential problems:</b> Businesses may not see education as their problem, so it may be necessary to educate them about the benefits of a strong educational system to them. Or, they may have their own agenda and try to co-opt you and the change effort to meet conflicting needs.</p>						

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	<p><b>M. Your attitude toward them</b></p> <p>How much time are you willing to spend with them? <i>If it is not much, it may be difficult to sustain momentum. More of your time will be required early in the process, but over time you should be gradually making yourself unnecessary. Also, if their expectations are that you will work either more or less time per week with them than what you intended, it is important to reach a consensus.</i></p> <p>How well do you get along with them? <i>If you don't feel you can develop a good personal relationship with them, your task will be more difficult and less likely to succeed.</i></p> <p><b>Potential problems:</b> It is easy to underestimate the amount of time you will need to spend initially to get the change effort underway. It is also sometimes difficult to accurately assess your own competing time demands. Remember Murphy's Law on both counts!</p>
	<p><b>N. Do-ability of the effort</b></p> <p>How big is the school system? How highly bureaucratized? <i>The larger and more bureaucratized the school system, the more difficult the change process is likely to be, all other things being equal.</i></p> <p>How much time will the district require of you? The larger the district, the more time it is likely to require. Also, the further along they are in their thinking about change, the less time it is likely to require of you. In the beginning, much direct facilitation may be required, but as you build their capacity for change, you should find yourself working primarily in the background providing scaffolding at a higher level (and working on changing yourself to keep up with the changing district). So the time demands on you are likely to become less as the change process advances.</p>

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