Collecting, Interpreting, and Using Data in the Working Systemically Approach

“People without information cannot act. People with information cannot help but act.” - Ken Blanchard

Data is a critically important element throughout the Working Systemically approach. Data collection, interpretation, and use—as well as other processes in the approach—are typically led by a stable team of leaders within the system. This team comprises district and school leaders, including teacher leaders. The team is often assisted by an external facilitator, from an outside intermediate agency, who is very familiar with the Working Systemically approach. The entire group is charged with the task of collecting, interpreting, and using data in order to bring about needed improvements in the system.

The first two phases of the Working Systemically approach involve understanding and analyzing the system. In these phases, the outside facilitator collects and analyzes specific data in order to gain clear insight of the system's people, processes, and status, and to plan for the work ahead. The facilitator shares this analysis with the leadership team. They work together to collect and interpret data throughout the remaining phases, monitoring implementation and assessing impact along the way. Meanwhile, the competency of collecting, interpreting, and using data is one that is continually developed as leaders work with the change facilitator and participate in the systemic improvement work.

Phase I: Understanding the System

In the beginning of this phase, the facilitator collects preliminary data in order to determine district needs related to improvement; gauge the willingness of administrators and teachers to participate in the process; and examine considerations that factor into whether there is a good “fit” between the district and the change facilitator.

Preliminary data that are needed in order to determine the district's needs include AYP status, content areas in need of improvement, and a summary of improvement efforts that the schools or districts have participated in to date.

The facilitator can gather willingness information through observations and interactions in which he or she asks questions about readiness to change, the level of district and personal commitment, the climate and culture of the system, the system's priorities, and communication styles.

The established relationship between the facilitator and the system leaders is one consideration that factors into “good
fit” decisions. Other considerations to take into account include the district’s interest in a long-term improvement commitment; the district’s willingness and ability to commit resources; stable leadership; and existing programs aligned to the improvement work.

In addition to providing information about the system’s needs, willingness, and suitability, the data collection and analysis in this phase begin to set a precedent for using data to make decisions. As the change facilitator works with the people in the system to collect and analyze the data, relationships are strengthened and trust begins to develop.

Phase II: Analyzing the System

Data collection, analysis, and use continues into the second phase. In this phase, the facilitator gathers key information, including campus and district improvement plans, disaggregated student achievement data, results of the mathematics and/or reading surveys completed by school staff, and information gathered from conversations with leaders and teacher focus groups. The facilitator analyzes this data to determine the

- attitudes and beliefs of school and district staff;
- effectiveness and degree of implementation of school and district programs and processes;
- alignment status of curriculum, instruction, and assessments to state standards;
- nature of professional development; and
- system’s use of data.

The facilitator can then add these data to an alignment summary form. By organizing data on a central form or chart, the team can more easily identify trends and needs.

It is important that the facilitator present these data in a clear and simple format so that the leaders can easily understand their status. An employee that has a background in arraying data is an extremely valuable member of the team.

The team members use this collected and analyzed information as they participate in a gap analysis. The gap analysis process helps the team identify disparities between the system’s current status and the status of high-performing systems. Once gaps have been determined, the team members follow steps to create a problem statement that describes their system.

The team continues to collect, analyze, and use data in the remaining phases. The facilitator works with the team to transform the problem statement into a statement that describes the “ideal state” or their desired goal. This step is followed by the development of appropriate action items, after which the team can begin its improvement work. Data will again be critical as the team establishes the professional learning and resources that support the implementation of the plan and arranges monitoring systems and as the system works to address changing conditions and challenges when they arise.

References
Resource Review Form and Assessment Resources

Funded by the U.S. Department of Education, the five comprehensive content centers have collaborated to develop a Resource Review Form for use in reviewing information to determine relevance, quality, utility, and effectiveness in meeting the goals of No Child Left Behind. This review form can be used by other centers, states, or even districts interested in determining the quality and value of resources they might use.

The form assists reviewers in categorizing resources into one or more of four categories: (1) knowledge; (2) product or tool; (3) guidance; and (4) services. It then provides questions that guide reviewers in determining relevance, including relevance related to No Child Left Behind and timeliness of the content. Next, the quality of the content is rated in such areas as goals, standards, methods, accuracy, and value. The communications quality is rated according to the organization, language, length, and visuals of the resource, and the resource’s utility is rated based on relevance to the audience, cost benefit, and supplemental resources. Finally, reviewers judge the resource’s evidence of effectiveness, including its impact on learning and generalizability.

The Assessment & Accountability Comprehensive Center has rated several assessment-related resources using the Resource Review Form. The center has compiled the resources into a guide designed to enhance state, district, and school assessment systems. The guide is divided into three strands:

- Special Populations
- Data Use and Formative Assessment
- Support for Quality State Assessment and Accountability Systems

The center’s Web site (www.aacompcenter.org/cs/aacc/print/htdocs/aacc/resources.htm) allows you to search each section of the guide online or download the entire guide in PDF format. The Resource Review Form is included in the back of the guide.

TXCC’s recent events and activities

On July 18–20, 2007, the TXCC hosted ESC staff in SEDL’s Austin office for a professional development session on systemic school improvement. This session discussed the background and foundation of the Working Systemically approach, as well as the steps in phase I of the work. Conversations from this session are guiding the adaptation of the Working Systemically approach for Texas, a process that involves incorporating tools and resources that are appropriate for Texas districts and schools.

In an attempt to meet the needs of those ESC staff members who may have missed the TXCC Annual Forum (held June 20–21 in San Antonio) and the systemic school improvement session in July, we offered a review session on September 10, 2007. In this session we reviewed the competencies and revisited issues relevant to phase I. Professional development sessions for this year will be ongoing and job-embedded. In addition to train-the-trainer sessions held periodically in Austin, the TXCC staff will travel to coach ESC staff as they implement the Working Systemically approach with districts and schools.

Phase II of the Working Systemically approach was the topic of the September 18 professional development session. This session was held in conjunction with the TEA/ESC/NCLB meeting. Participants gained information regarding phase II of the Working Systemically approach: collecting data, forming or adapting a district leadership team, conducting a gap analysis, and identifying a problem statement and ideal state.
The “Why,” “What,” and “How” of Data Collection

In today’s climate of accountability, schools and districts are collecting more data than ever before. Research suggests that the use of data is imperative in successful school improvement (Armstrong, 2002; Massell, 2000; Killion & Bellamy, 2000). In the Working Systemically approach, data are used in each phase and at each level of the system. Data can be useful in measuring not only the implementation and impact of the process but also in measuring development of the competencies (creating coherence; collecting, interpreting, and using data; ensuring continuous professional learning; building relationships; and responding to changing conditions) and status of the components (standards; curriculum; instruction; assessment; resources; policy and governance; family and community; and professional staff).

Data can help systems

• replace hunches with facts,
• identify gaps,
• establish root cause of the gaps,
• measure impact,
• target services,
• predict and prevent failures, and
• predict and ensure success. (Bernhardt, 2006)

However, data can be overwhelming. Even systems intimately involved in the school improvement process might still be unclear about exactly why they are collecting the data they are, what types and how much data should be collected, and how to organize and present the data effectively. Getting structures to address these issues will greatly facilitate efforts to establish needs and move toward improvement.

Bernhardt (2005) discusses the following four different types of data that should be collected in order to acquire a comprehensive understanding of a school system:

• Student learning data
• Demographic data
• School process data
• Perceptual data

Most schools and districts have in place a process for collecting student learning data. This type of data includes standardized, norm-referenced, and criterion-referenced tests; teacher observations; and authentic assessments. Some schools and districts even collect these data over time in order to gain a deeper understanding of student performance.

Most schools and districts also have a method to gather demographic data. This type of data includes enrollment, attendance, dropout rate, ethnicity, gender, and grade-level data. This kind of data provides information about changes in the context of the school and district.

Some systems are now collecting school process data, such as records about tutoring programs, advanced placement class attendance, and the reading and mathematics programs being implemented. School and district processes are those elements that produce results. While school and district actions can impact other types of data, this is the only one of the four types for which the inputs can be manipulated by the system in order to improve results.

Finally, some systems are realizing that perceptions are important, and they are beginning to collect those data as well. Perceptual data is just that—people’s perceptions about the learning environment. Schools and districts can begin to collect information regarding attitudes, beliefs, observations, and values of those in the system.

Data can be collected through a variety of means: conversations, focus groups, surveys, questionnaires, interviews, observations, and examination of existing records. But this information shouldn’t be allowed to become yet another pile of facts and figures. In order to be interpreted effectively, data must be organized and reorganized into tables, charts, and graphs so that patterns and issues become apparent. The format of the data is important. If the data are not visually appealing, clear, and well arranged, people will not be excited about discussing it. The size, shape, colors, and amount of data displayed should all be considered. Some districts and schools are creating “data walls,” which display relevant charts, graphs, and summary statements and become tangible fixtures wherever staff collaborate about school improvement work.

Once the right types of data are collected and effectively presented, let the conversations begin. Issues will begin to emerge, and steps can then be taken to address them—which is the real reason for collecting all that data in the first place.

References:


Update on Teacher Quality

The U.S. Department of Education’s Policy and Program Studies Services has released an interim report based on the results of two federally funded studies. The report describes the states’ progress in meeting the provisions for highly qualified teachers under NCLB. The report reveals the following facts:

- While most teachers meet their state’s requirements for highly qualified teachers under NCLB, state policies outlining those requirements vary greatly.
- The teachers least likely to be considered highly qualified include those teaching in middle schools (9%), those teaching limited English proficient (LEP) students (6%), those teaching special education students (15%), and finally, those teaching in high-poverty and high-minority schools. Additionally, teachers teaching in high-poverty and high-minority schools are less experienced and less likely to have a degree in the subject they teach.
- Although nearly all teachers reported participating in content-focused professional development related to the teaching of reading or mathematics, only a small portion of those teachers reported participating in such professional development activities for extended periods of time (i.e., more than 24 hours).

For more information, go to www.ed.gov/rschstat/eval/teaching/nclb.
Giving Parents Options

The U.S. Department of Education has released a new booklet that informs and empowers parents as they explore education-related options for their children. The booklet outlines strategies that states and districts can use to make NCLB’s public school choice and tutoring provisions work for students and families. Districts are required to notify the parents of eligible students of their public school choice and supplemental educational services. This booklet provides ideas for districts to help

- ensure informative content,
- ensure readability,
- inform without overwhelming,
- ensure the notice reaches its target, and
- get feedback from parents.

Also provided are ideas for additional outreach activities, such as public service announcements, information hotlines, fliers, and brochures.

Additional ideas that will inform state education agencies as they assist districts include the following:

- Simplifying parent forms
- Expanding access to forms
- Expanding sign-up periods

The suggestions provided in this handbook should help schools and districts as they work to effectively provide these options required by NCLB. The document is available to download at www.ed.gov/admins/comm/choice/options/index.html.