

Formative research on an early stage of the systemic change process in a small school district

Roberto Joseph and Charles M. Reigeluth

Roberto Joseph is an assistant professor at Hofstra University, Hempstead, NY in the Curriculum and Teaching Department, School of Education. Address for correspondence: Department of Curriculum and Teaching, School of Education, Hofstra University, Hempstead, NY. Tel: +1 516 463 5086; fax: +1 516 463 6196; email: Roberto.Joseph@hofstra.edu. Charles M. Reigeluth is a professor at Indiana University, Bloomington, IN in the Instructional Systems Technology Department, School of Education. Address for correspondence: Department of Instructional Systems Technology, School of Education, Indiana University, Bloomington, IN. Tel: +1 812 856 8464; fax: +1 812 856 8239; email: reigelut@indiana.edu

Abstract

This study utilised a qualitative research methodology known as formative research to improve the process guidelines that are described in the Guidance System for Transforming Education (GSTE). This study took place in a small (5447 students), partly urban and partly rural school district in Indiana. The researchers, also serving as change facilitators, investigated an early stage of the systemic change process as outlined in the GSTE. Specifically, the research focused on field-testing and improving the process for assessing the district's readiness for change. It was found that this process could have been improved if the facilitators had had more guidance to help them develop the interview protocols.

Introduction

Currently our public educational system is failing to meet the needs of an information age society, and therefore is in need of fundamental, systemic change (Banathy, 1991, 1992; Caine & Caine, 1997; Duffy, Rogerson & Blick, 2000; Jenlink, 1995; Reigeluth, 1994; Schlechty, 1990). But the term 'systemic change' means different things to different people (Squire & Reigeluth, 2000). When trying to understand the concept of systemic change, it is helpful to compare it to piecemeal change (Banathy, 1991; Reigeluth, 1994). Duffy *et al* (2000) use a jigsaw puzzle metaphor to help us understand why using a piecemeal approach to change does not work and why systemic change in education is needed. They say that:

like a successfully completed jigsaw puzzle, every piece is connected to everything else. You can't change one piece without altering the pieces connected to it. Incremental reforms tend to focus on individual pieces of the school system without considering the required changes in the connecting pieces. (p. 49)

Piecemeal change uses a patching-up approach and focuses on a small piece of the puzzle in improving the part(s) of the school system that need(s) fixing. There are many school change models that utilise this piecemeal approach to change (eg, Success for All and the School Development Program). Most school change is inherently not systemic because it focuses on a school or a part of a school as the unit of change. True systemic change requires substantial changes in all aspects of an educational system (eg, government policy, board of education, district office, schools, classroom practices, curriculum, assessment, etc) (Reigeluth, 1994).

It is also helpful to distinguish between the process and product of change. The product of change process is a redesigned educational system, whereas the process of systemic change is what people do to transform their current system into a redesigned system. Much research has focused on the product of change, from the Coalition of Essential Schools' nine principles (Sizer, 2002) to the New American Schools comprehensive school designs (Stringfield, Ross & Smith, 1996). The educational change literature is severely lacking research on the process of systemic change in education, and many educators and researchers are now calling for the development of a *process* knowledge base that a school community can use to transform their educational system (see eg, Banathy, 1991; Comer, Haynes, Joyner & Ben-Avie, 1996; Duffy *et al*, 2000; Fullan & Stiegelbauer, 1991; Jenlink, Reigeluth, Carr & Nelson, 1998, 2004; Reigeluth, 1994).

For systemic change in education to be successful in dramatically improving student learning, it will require a fundamental rethinking or mindset shift in the way learning is structured for children; and it will require a radical redesign of the entire educational system and its processes. Duffy *et al* (2000) say that:

In the literature on school improvement, there are many reasons *why* schools need to be improved. In the same literature, there are many authors telling you *what* the outcomes of school improvement should be. Some of these models aim to improve individual school buildings, while others attempt to improve the curricula. Very few of them however, talk about *how* to redesign entire school systems for high performance. Most of what is described in the literature represents incremental, piecemeal change. (p. xvi)

This paper summarises a change model that addresses *how* to redesign entire school systems, and it presents the findings of a research study conducted on a part of that change model.

Several researchers have developed design theories (flexible processes) for systemic change in education (see eg, Banathy, 1991; Comer *et al*, 1996; Duffy *et al*, 2000; Fullan & Stiegelbauer, 1991; Jenlink *et al*, 1998; Reigeluth, 1993). While helpful, many of these theories have not provided practitioners with the level of guidance and support needed to sustain a long-term systemic change effort. Additionally, many of these the-

ories have focused on the individual school as the unit of change, as opposed to focusing on the district and community levels. However, one of these design theories does offer a significant amount of detailed process guidance, the 'Guidance System for Transforming Education (GSTE)' (Jenlink, Reigeluth, Carr & Nelson, 1996, 1998, 2004), and shows some promise to help stakeholders transform their educational systems. It is the most detailed design theory for district-wide systemic change that we have found to date.

The GSTE

The GSTE (Jenlink *et al.*, 1998, 2004) is a process model for facilitating systemic change. It was designed to provide process guidelines to a facilitator engaging in a district-wide systemic change effort. It does not provide any indication of what needs to be changed in the district. The GSTE is comprised of 'discrete events' (see Table 1), which are a chronological series of activities for engaging in systemic change, and 'continuous events', which are activities that must be addressed continuously throughout much or all of the change process (Jenlink *et al.*, 1998). The discrete events fall into five phases:

1. assess readiness and negotiate an agreement;
2. prepare the core team for the change process;
3. prepare expanded teams for the process;
4. engage in design of a new educational system; and
5. implement and evolve the new system.

These phases are described in greater detail below.

The continuous events address 18 concerns: (1) evaluate and improve the change process, (2) build and maintain political support, (3) sustain motivation, (4) develop and sustain appropriate leadership, (5) build and maintain trust, (6) evolve mindset and culture, (7) periodically secure necessary resources, (8) develop skills in systems thinking, (9) periodically and appropriately allocate necessary resources, (10) develop group-process and team-building skills, (11) build team spirit, (12) engage in self-disclosure, (13) engage in reflection, (14) develop design skills, (15) communicate with stakeholders (two way), (16) build and evolve community, (17) foster organisational learning and (18) build an organisational memory.

Furthermore, there is a clearly identified set of values upon which the GSTE is based: (1) caring for children and their future, (2) systemic thinking, (3) inclusivity, (4) stakeholder ownership, (5) co-evolution, (6) facilitator, (7) process orientation, (8) context, (9) time, (10) space, (11) participant commitment, (17) respect, (18) responsibility, (19) readiness, (20) collaboration, (21) community, (22) vision, (23) wholeness, (24) language, (25) conversation, (26) democracy (27) and culture. Particularly important to the success of the change effort is the role of a neutral facilitator who has experience in district-wide systemic change. These values provide criteria for all decisions about the change process.

Table 1: Discrete events of the Guidance System for Transforming Education

Phase I: Assess Readiness and Capacity

- Event 1: Assess and enhance your readiness to be a facilitator
- Event 2: Establish or redefine a relationship with a school district
- Event 3: Assess district's readiness for change and negotiate a formal agreement
- Event 4: Assess the district's capacity for change

Phase II: Prepare Core Team

- Event 5: Select the participants for the Core Team
- Event 6: Create the Core Team dynamic
- Event 7: Capacitate the initial Core Team in systems design
- Event 8: Design Events 9–11
- Event 9: Identify competing change efforts
- Event 10: Evaluate openness to change
- Event 11: Evaluate the existing culture for change
- Event 12: Design the process for expanding the Core Team

Phase III: Prepare the Expanded Teams

- Event 13: Expand and build the Decisioning Team
- Event 14: Select and build the Design Team
- Event 15: Capacitate and enculturate the Design Team
- Event 16: Redesign the change process

Phase IV: Design a New System

- Event 17: Evolve mindsets about education
- Event 18: Explore ideal beliefs and assumptions about education
- Event 19: Select and build multiple design teams
- Event 20: Explore ideal visions based on common beliefs
- Event 21: Develop a system for evaluating the results of the change process
- Event 22: Design a system of functions for each ideal vision
- Event 23: Design the components for accomplishing each function
- Event 24: Design the administrative and governance systems

Phase V: Implement and Evolve the New System

- Event 25: Develop an implementation process for evolving to the new system
 - Event 26: Evolve, evaluate, and revise the new system
-

The discrete events for the systemic change process fall into the five phases discussed below.

Phase I: Assess readiness and negotiate an agreement

During this phase, the facilitator assesses his or her level of readiness to guide a systemic change effort in a school district. It is during this phase that the facilitator begins to establish a relationship with a school district, and determines whether the district is at a sufficient level of readiness for a systemic change effort. If both the school district and the facilitator are at a sufficient level of readiness and are committed to working with one another, then they should negotiate a formal agreement. This agreement stipulates expectations for all stakeholders involved, including the role of the facilitator.

Phase II: Prepare a Core Team for the change process

Once a formal agreement has been signed, the facilitator should guide the school district in forming a 'Core Team' to initiate the change process. The members of the Core Team should be well respected opinion leaders of their respective stakeholder groups. The Core Team should be small, preferably one leader from each of the major stakeholder groups (eg, the superintendent, a board member, a parent leader and the teachers' association president). The primary role of the Core Team is to evaluate the capacity for change in their school district, develop an understanding of the nature of systemic change and develop a culture for change on their team, in preparation for creating expanded teams in which that culture and understanding will be cultivated.

Phase III: Prepare expanded teams for the process

During this phase, the Core Team expands into two teams. One team is for political support. It should be large (about 25 people), and should be comprised of highly respected representatives (opinion leaders) of various stakeholder groups. This team is called the 'Decisioning Team', because it is entrusted with making the decisions about the changes; and this is the team that the Core Team usually expands into first. The Decisioning Team then forms a 'Design Team', which is responsible for creating a shared vision of the 'new' system and working out details to ensure its success. It should be small (about 7–10 people), and should be comprised of well respected creative thinkers from a wide variety of stakeholder groups. This team has some overlap in membership with the Decisioning Team. In this phase the Core Team's culture for, and understanding of, systemic change are cultivated within these expanded teams.

Phase IV: Engage in design of a new educational system

This phase is probably the most intensive of all the phases, because it requires all those involved to share their beliefs about education. Here, stakeholders must come together to envision their ideal educational system. It is expected that various stakeholder groups will have very different ideal visions, as different stakeholders within each group will. What is more important is the foundational set of common beliefs about education that must be developed and agreed upon by all stakeholders. It is from this set of common beliefs that ideal visions of education can be created to design a new educational system. Often, multiple design teams are formed so that the common beliefs can be implemented in very different ways in different schools in the district.

Phase V: Implement and evolve the new system

Once the ideal system has been generated and approved, the community develops an implementation process for gradually evolving the current system ever closer to the ideal. Some compromises on the ideal are usually required, especially in the short term, and of course the ideal will change as they get closer to it. This means that they need not only a plan for evolving the current system toward the ideal, but also a plan for evolving the ideal. Evaluation is an integral part of both of these processes.

Detailed guidance for performing each phase is provided by Jenlink *et al* (2004). You can also access updated information about the GSTE at this website: <http://www.indiana.edu/~syschang/decaturn/>

Purpose of the study

This study is one part of a larger study to test and improve the process guidelines that are described in the GSTE (Jenlink *et al* 2004). Because the GSTE was designed to be carried out over a 3- to 5-year period, the scope of this study was limited to one discrete event in Phase I (assess readiness and negotiate an agreement): Event 3. Assess the district's readiness for change and negotiate an agreement. The event offers guidance to help the facilitator(s) and the school district determine whether or not they should work together.

The following research questions served as a guide for the study:

1. What guidelines of Event 3 worked well in this particular district-wide effort?
2. What guidelines did not work well in this effort, and should they have been omitted or revised for this effort? If they were or should have been revised, what revisions worked well, or would likely have worked well, in this effort?
3. What new activities should have been used in this effort?
4. What criteria were most helpful in judging what 'worked well' in this change effort?
5. Given the changes that improved or would likely have improved the process used in this effort, which ones might be beneficial to incorporate into the GSTE? And what 'situationality' (contextual aspects of a particular case, see Reigeluth, 1999) may influence when any guidelines should and should not be used or what the guidelines should be like?

Formative research methodology

Because the purpose of this study was to further develop a part of the GSTE, evaluation research (see eg, Chatterji, 2004) was needed. Formative research (Reigeluth & Frick, 1999) was selected because it is a form of evaluation, action and design-based research (Greeno, Collins & Resnick, 1996; The Design-Based Research Collective, 2003) that is intended to identify potential improvements for a design theory (or guidance system) by finding ways to improve a case that is conducted according to that design theory. According to Reigeluth and Frick (1999), the methodology to conduct this kind of formative research requires the six steps that follow.

Select a design theory

For this case study, the researchers selected Event 3 in Phase 1 of the GSTE. This event is made up of two activities, 'assess the district's readiness for change' and 'negotiate a formal agreement'. Assessing readiness involves the following actions:

1. Prepare yourself.
2. If you are an external facilitator, look at documents about the district.
3. Build a relationship with, and involve, the key leaders.

4. Identify all stakeholder groups and their leaders.
5. Develop your interview protocols.
6. Conduct intake interviews.
7. Create a preliminary profile of the stakeholder groups and key individuals in the district.
8. Share with the leadership advisory group.
9. Make a tentative decision.

Negotiating an agreement entails the following actions:

1. Prepare yourself.
2. Prepare an interview protocol.
3. Interview the key leaders.
4. Prepare a draft agreement.
5. Get input from the superintendent.
6. Revise the agreement.
7. Get leadership advisory group buy-in and approval.
8. Prepare the final draft of the agreement.
9. Hold a signature ceremony and publicise.

The GSTE provides considerable guidance and principles for these actions. The purpose of selecting the GSTE for this study was to improve the guidance it offers.

Design an instance of the theory

The larger project of which this study was a part was a systemic change effort in the Indianapolis Metropolitan School District of Decatur Township, a small, partly urban and partly rural school district consisting of one administrative building, one high school, one middle school, four elementary schools and one early childhood center, within an area of 32 square miles. At the time of this study, the school district had a total population of 5447 students, 260 teachers and 283 professional staff. It had a student-to-teacher ratio of 19 : 1 and approximately 30% of its student population was eligible for free lunch. The change effort was initiated in January 2001, with the co-authors of this paper serving as co-facilitators from Indiana University, and the effort was still in progress at the time this paper was submitted for publication (January 2005). The 'instance' of Event 3 was the co-facilitators' use of it in the school district during February 2001.

Collect and analyse formative data on the instance

Throughout the performance of Event 3, the researchers conducted formative evaluation (Bloom, Hastings & Madaus, 1971; Cronbach, 1963; Thiagarajan, Semmel & Semmel, 1974) of the Decatur change process, with the expectation that the data might help improve the GSTE as well as the Decatur process. When collecting formative data, Reigeluth and Frick (1999) recommend conducting interviews and observations, and reviewing documents. The data were collected and analysed from multiple sources that included: (1) the researchers as participant observers, (2) field notes of all visits, (3) focus group interviews, (4) individual interviews with the stakeholders of the school

district (5) and surveys. Additionally, important documents about the district were collected and analysed (ie, mission statements, goals and demographic data). The purpose of the data analysis was to identify strengths, weaknesses and possible improvements for Event 3 as implemented in this case.

Revise the instance

The researchers made constant revisions to the district's change process throughout the entire study (Event 3). Revisions to the instance (application of the event in Decatur) were made before and after the implementation of the event. It is important to note that revisions made before the implementation of the event were not based on formative data, rather they were the result of redesign efforts by the researchers to tailor the event to their context as called for by the GSTE. Revisions made during and after the implementation of the event were based on formative data. All revisions were also based on the data collected from the sources described above in Step 3. The researchers, as often as possible, tried out the revisions during the implementation.

Repeat the data collection and revision cycle

As much as possible, the researchers repeated the process of data collection, analysis and revision during the event. In this way, the researchers found that some activities that worked well in certain situations or conditions may not have worked well in others. According to Reigeluth and Frick (1999), these 'situationalities are important discoveries in a research effort to improve a design theory and better meet the needs of the practitioners' (p. 644).

Offer tentative revisions for the theory

At the end of the study, the findings were used to hypothesise revisions for the GSTE. Of course, additional evaluation research on this event of the GSTE should be conducted in similar and not so similar contexts in order to assess the generalisability of the findings (Reigeluth & Frick, 1999). In those studies where the context is very different from Decatur, the researchers expect to find 'situationalities' (Reigeluth, 1999) that should be added to the guidelines, to indicate when each is appropriate. In those cases where the context is very similar to that of Decatur, the researchers still expect to find some situationalities. Knowing about situationalities will be important for facilitators working in different kinds of public school districts.

Methodological issues

Qualitative research has been criticised for not being rigorous and for lacking validity and reliability. Reigeluth and Frick (1999) address three methodological issues for formative research: '(a) construct validity, (b) sound data collection and analysis procedures, and (c) attention to generalizability to the theory' (p. 647).

Construct validity

Construct validity is defined as 'establishing correct operational measures for the concepts being studied' (Yin, 1984). In this study, the concepts of interest are: (1) the methods offered by Event 3, (2) the situations that influence the use of those methods

and (3) the indicators of strengths and weaknesses of the methods (Reigeluth & Frick, 1999).

Yin (1984) recommends three methods that increase construct validity:

1. Use multiple sources of evidence. Many researchers refer to this as 'triangulation' during data collection. As mentioned earlier, in this study the data were collected and analysed from multiple sources that included: researcher as participant observer, field notes of all visits, focus group interviews, individual interviews with the stakeholders of the school district and surveys.
2. Establish a chain of evidence during data collection. Miles and Huberman (1984) recommend using contact summary sheets in addition to field notes after every visit to the school district. They recommend including the following information on the contact sheets: people, events or situations that were involved; the main themes or issues in the contact; the research questions that the contact most closely addressed; new hypotheses, speculations or guesses about the field situations; where the field-worker should place most energy during the next contact; and what sorts of information should be sought. In this study, the researchers developed a table that included much of the contact information that Miles and Huberman (1984) recommend should be gathered after each visit to the school district.
3. Have the draft case study report reviewed by key informants. This is a form of 'member checking'. The researchers shared drafts of the report with the school district describing 'what happened' (and how what happened differed from the guidance offered by the GSTE), 'what did and did not work well' and 'tentative recommendations for improving' the GSTE.

Sound data collection and analysis procedures

The methods used to increase construct validity can also be used to increase 'the credibility or accuracy of the data' (Reigeluth & Frick, 1999, p. 647), including triangulation, chain of evidence, member checks, researcher's role, assumptions, biases and theoretical orientation (Reigeluth & Frick, 1999, p. 648). Reigeluth and Frick (1999) also outline various ways of ensuring and enhancing the 'thoroughness or the completeness of the data' (p. 647): (1) advance preparation of participants, (2) an emergent data collection process, (3) gradually decreasing obtrusiveness, (4) iteration until saturation and (5) identification of strengths and weaknesses. In this study, every effort was made to address each of the methods described above for increasing accuracy and completeness of the data.

Attention to generalisability to the theory

According to Reigeluth and Frick (1999), 'rigor in formative research is increased by enhancing ways that the results can be generalized to the theory' (p. 649). They suggest two issues to pay attention to for generalising results to the theory: (1) situationality and (2) replication.

Situationality

The researchers probed to identify possible 'situationalities' that may have restricted the generalisability of the school district's Event 3 process to other cases. Situationalities are the ways that methods may vary for different contextual situations. In this study, the researchers provided enough rich, thick description 'so that readers will be able to determine how closely their situations match the research situation, and hence whether the findings can be transferred' (Merriam, 1998, p. 211). Additionally, the researchers hypothesised situationalities and incorporated them into the theory. Reigeluth and Frick (1999) state that 'when situationalities are incorporated into the theory, the theory becomes more useful for a broader range of situations' (p. 649).

Replication

Before actual changes to theory can be made, additional developmental research studies will be needed to support or qualify the findings. Also, additional research studies should be conducted in various contexts (eg, small, medium and large rural, urban and suburban school districts) in order to identify additional situationalities that can be incorporated into the theory and to develop guidelines for each.

Results

There are two major activities in Event 3 of the GSTE. The first activity, Event 3.1, is assessing the district's readiness for systemic change. The second, Event 3.2, is negotiating a formal agreement. This section provides, first, a summary of 'what happened' in the field as Event 3.1 was conducted in Decatur, and identifies ways in which that differed from the GSTE and why. This includes identifying operational details that were not spelled out in the GSTE. Second, evidence is shared about 'what did and did not work well' while conducting Event 3.1 out in the field. Then, the researchers offer a summary of tentative recommendations for improving the GSTE. Finally, Event 3.2 is addressed.

What happened?

This section describes first how the facilitators conducted each meeting to assess the district's readiness for systemic change. This is followed by several sections that describe in more detail each of the meetings with the various stakeholder groups.

Conducting the meetings

On February 5 and 15, 2001, the facilitators met separately with 3–5 members of each stakeholder group, in the following order: (1) central administrative staff, (2) parents, (3) building principals, (4) teacher's association officers and (5) school board and superintendent. The purposes of the meetings were to explain their interests, motives and view of change, and to assess the school district's interest in and readiness for change and for neutral outside facilitators. Table 2 shows the protocol used during these meetings. This protocol was not part of the GSTE; however, the GSTE does include a process step titled 'Develop your interview protocols'.

Table 2: Protocol for focus group meetings with stakeholders

Introductions
Why we are here?
Help communities interested in serious change—are looking at four communities
Find out if you are interested in such change and in us as facilitators
Explain the kind of help we provide
Facilitate, not lead
All stakeholders must have ownership, must want our help
We must be impartial—no pay from district office
Trust, confidentiality
Is there a need for improvement in your schools?
What are you most dissatisfied with?
What changes would you like to see? (Are they small or large?)
What should a good change process be like?
Their thoughts
Our view
What past and current change efforts?
What did you think about each?
Who are the important stakeholder groups?
Who are their leaders?
How well do they get along with each other?
Do you want us to help you with change?

The GSTE advises that the facilitator meet one-to-one with each of the key leaders from each stakeholder group. ‘One-to-one contact is often more effective’ (Jenlink *et al*, 2004, p. 4) and can provide in-depth and rich responses. In this case, the facilitators felt it was important to try to reach several opinion leaders in each stakeholder group, and to gain a sense of their interest in, and readiness for, change. It was decided by the facilitators and the superintendent that the most effective and efficient method of getting input from several key leaders in each stakeholder group was to meet in focus groups of about four leaders per stakeholder group. What follows is an account of the focus group meetings.

In all the focus groups, the facilitators explained that they viewed their role as helping the stakeholders in the school district to decide what their schools should be like, not to tell them what changes to make. The stakeholders seemed both surprised and pleased with this. The facilitators also described in general terms the change process that they had found helpful in the past. The most important part of that process is to involve all stakeholders in generating a shared vision of their classrooms, schools and district. But for this to be possible, they explained, they must first all work together to arrive at a set of shared beliefs and values as a foundation upon which to build their shared vision.

Meeting with central administrative staff

On February 5, 2001, the facilitators had a lunch meeting with several of the central administrative staff: (1) the superintendent, (2) assistant superintendent and (3) director of instruction. The purposes of this meeting were primarily to continue building a

relationship with the administrative staff, and to make a tentative decision regarding whether or not to work with the school district. Because this was their first time to meet with the director of instruction, the facilitators started with brief introductions. The administrators then described some of the history and trends in staff development initiatives at Decatur. The facilitators emphasised to them that they wanted to assess their interest in, and readiness for, change. The following comment made by the superintendent (newly hired less than four months earlier) and affirmed by the other central administrative staff was a good indication that they were interested and ready for change in their district:

In the past [ten years ago] Decatur had a clear vision and mission that everyone knew and believed in. That vision is now lost, and needs to be recreated. (Superintendent, Field notes, February 5, 2001)

On February 15, the facilitators met again with the director of instruction, and for the first time with the associate superintendent for operations and the director of student services. During the meeting, many issues (eg, community characteristics, school district climate and race relationships) arose in the administrators' descriptions of the changes currently occurring in the school community and the changes they would like to see come to fruition.

Following the meetings with the central administrative staff, the facilitators set aside some time to review their field notes and to discuss a key question for this Event, 'Does the school corporation administrative staff want to enter into a long-term relationship with the facilitators?' The following excerpt is from the facilitators' field notes.

Overall the school corporation administrative staff seems excited about the possibility of working with us. They are eager for us to begin the process, and they believe that this is a perfect time for a major change effort in Decatur. They believe and trust in the superintendent. We still need to meet other members of the staff that were not able to attend. They are hoping that we decide to work with them. (Field notes, February 15, 2001, p. 3)

Meeting with parents

On February 5, 2001, we met with the PTA/O presidents of four of the seven schools in the district. On February 15, 2001, we met with the remaining three PTA/O presidents. School and district culture were the predominant issues that arose during the focus group meetings with the parents. One parent summed up the overall sentiment of the group with the following statement:

Overall, parents are happy with the teachers and the job that they are doing. We do not blame the teachers for the problems we see in schools. We would like to see teachers not only teach academics, but also the social values, manners, and interpersonal skills needed to become positive and productive members of society. (Field notes, February 5, 2001, p. 3)

As the meeting continued, we began to hear important differences in the culture of each of the schools in the district. For example, one of the parents stated, 'The stereotype of

the parent and student population at Stephen Decatur and Lynwood Elementary schools is dirty, poor, white trash' (Field notes, February 5, 2001, p. 3), and 'There is very poor attendance among parents at the PTA/O meetings' in these schools (Field notes, February 5, 2001, p. 3). When describing one of the top two elementary schools in the district, one parent stated that 'At West Newton Elementary parental involvement is outstanding, and parents do attend the teacher conferences' (Field notes, February 5, 2001, p. 3).

During both meetings, the parents did not have anything positive or negative to say about the culture of the Middle School. There were some discussions around how the Middle School is structured. One parent, in describing the Middle School, stated that:

At the Middle school there is a team structure in place. It is somewhat similar to the school-within-a-school idea. Students are placed into a team by a computer program. There is also a gifted and talented educational program at the Middle School. (Field notes, February 5, 2001, p. 3)

Overall, the parents seemed concerned about the tone and culture of the high school. As one parent put it,

There are major problems at the High School. I know a parent whose son attends the high school, and she is concerned about the safety of her child, who has been getting bullied. She really doesn't know what to do about the situation. (Field notes, February 5, 2001, p. 3)

Our meeting with the remaining three parent leaders on February 15, 2001, validated many of the concerns that emerged in the meeting we conducted on February 5. One parent stated her concern with the high school as follows: 'Students at the high school are not being challenged. I have two children who attend the high school, and the high school is in disrepair.' (Field notes, February 15, 2001, p. 4)

During this second meeting, the discussion moved away from the culture of the schools to the culture of the district. 'I would like teachers and administrators to live in the community', one parent commented (Field notes, February 15, 2001, p. 4). Many of the district personnel currently do not live in the community. There seems to be a division between the district personnel and the community they serve.

Following our meetings with the parents, we set aside some time to review our field notes and to discuss a key question for this Event, 'Do the parents want to enter into a long-term relationship with us?' The following excerpt is from the field notes of our meeting on February 15, 2001.

Parents are not happy with the current conditions of the Decatur schools. They are satisfied with the education their children have received thus far, but are afraid that the conditions are deteriorating. They are very interested in being involved in a change effort and entering into a long-term relationship with us. (Field notes, February 15, 2001, p. 3)

Overall, our meetings with the parents were very informative and gave important information for our decision about whether or not to work with the district. In this case, the parents were comfortable in describing the culture of each of the schools that they represented. Parents seemed to value hearing how other parents perceived the culture of their schools. It was also helpful for the facilitators to gain a better understanding of the various cultural differences in the district.

Meeting with building principals

The facilitators met with the building principals on two separate occasions. First, on February 5, 2001, they met with the elementary school principals, and then on February 15, 2001, they met with the middle and high school principals. The following are quotes from the facilitators' field notes on their meetings with the principals. These quotes give some indication of the perspective of each of the principals. More important for this project, the principals' perspectives provided the facilitators with insights that helped them make the decision on whether or not to work with the school district.

One of the elementary school principals shared her thoughts as to whether or not the district was ready for change: 'I feel that people are ready for a change. It's the perfect time. The district currently has no vision, and the community doesn't know what they want from the schools.' (Field notes, February 5, 2001, p. 4)

Another principal of an elementary school was disappointed in what had been happening in her school. She was new to the district, and during the meeting she shared her frustration: 'It wasn't what I expected. I heard great things about this district, and I have been let down. I feel that teachers are ready for change, but I worry that the teachers' association may be resistant to change.' (Field notes, February 5, 2001, p. 4)

The principal of one of the top elementary schools in the district shared her feelings with the group. Of all the principals present at the meeting, this principal had been working in Decatur for the longest period of time. The following excerpt is from the field notes of our meeting.

...any change effort should begin by reexamining the focus of the district. I feel that the district needs a common language. We should revive the good things that have been done, and create *organized abandonment*. Organized abandonment means coming to consensus on throwing out processes that don't work. In the past Decatur had a mission and goals, but over time people have forgotten them. When the [district] leadership changes, the system changes. (Field notes, February 5, 2001, p. 4)

On February 15, 2001, we met with the principals of the middle and high schools. The principal of middle school wanted change to occur. He said, 'There is a real desire on the part of the teachers to change. Currently, it is very hard to give students one-on-one immediate feedback. Facilities need to change in order to accommodate the needs of students.' (Field notes, February 15, 2001, p. 3) The principal of the high school wanted to see the following changes:

1. More effective teaching methods;
2. Increase in community involvement;
3. Changes in attendance structure.

Personally, he wanted to learn skills and techniques to facilitate change. (Field notes, February 15, 2001, p. 4)

Following our meetings with the principals, we set aside some time to review our field notes and discuss a key question for this Event, 'Do the principals want to enter into a long-term relationship with us?' The following excerpt is from the field notes of our meeting on February 15, 2001: 'The principals feel excited about the opportunity for change. They feel it is a perfect time to take on a change effort. They said they were indeed interested in entering into a long-term relationship with us.' (Field notes, February 15, 2001, p. 4)

Overall, our meetings with the building principals were very informative and became an important part of the process. The principals seemed to know each other well and seemed to have good working relationships with each other. The meetings provided the facilitators with some initial insights into whether they felt that their schools needed change and were ready for change.

Meeting with teachers' association officers

Of all the meetings, this meeting with the teachers was the most intense. The teachers' association president came in asking such questions as: 'Why are we here? Where are the other stakeholders? Is this about Public Law 221? Did the Superintendent hire you?' (Field notes, February 5, 2001, p. 5). As facilitators, we were prepared to answer the bombardment of questions. It was intimidating at first, but once we introduced ourselves and explained why we were there and that we were a neutral party, the waters calmed.

It was truly amazing to watch the flow of the meeting. At first, we did not think the representatives would be interested in working with us. It was clear that they lacked trust in the current system. They had not been part of the decision-making process. The people who had the most direct impact on the children's education seemed to have no voice under the previous administration. The representatives wanted this to change. By the end of the meeting, the president of the teachers' association apologised for being so animated. The rest of the members stated, 'You must love working with people in order to be able to withstand such bombardment!' (Field notes, February 5, 2001, p. 5)

Three issues seemed to help persuade the teachers' association to decide to work with us (Field notes, February 5, 2001):

1. Our neutrality in the process;
2. The nature of systemic change, and the idea of ALL stakeholders being a part of the decision-making process;

3. Both facilitators had been teachers and could identify with the representatives and their frustrations. This was key in beginning to gain their trust! (p. 5)

Following our meetings with the teachers' association representatives, we set aside some time to review our field notes, and to discuss a key question for this Event, 'Does the teachers' association want to enter into a long-term relationship with us?' The following excerpt is from the field notes of our meeting on February 5, 2001: 'Surprisingly, by the end of the meeting the president of the teachers' association and the other representatives were all very excited about working with us on a change effort, and developing a long-term relationship.' (Field notes, February 5, 2001, p. 6)

Overall, our meeting with the teachers' association representatives was very informative and became a necessary part of the process. The teachers did not seem to have been informed of the purpose of the meeting. One improvement that should be made to the process is to make sure that all stakeholders understand the purpose of the meeting they are asked to attend, prior to the meeting.

Meeting with the school board and superintendent

On February 5, 2001, we had our first meeting with the board of education—a dinner meeting. The superintendent was also present. We started with introductions, and we explained why we were there. They wanted to know in concrete terms the meaning of systemic change. At first, they assumed we were coming in with a specific agenda/program. As the meeting went on, they began to understand that we were not there to implement a program, but to facilitate a process that would engage them in deciding what changes to make. They were interested in knowing more about the process that we had to offer. They wanted specific examples of what the process would be like (Field notes, February 5, 2001). We explained that we would offer them guidance in every step of the way, and that we were interested in building a long-term relationship with them.

Following our meetings with the board of education, we set aside some time to review our field notes, and to discuss a key question for this Event: 'Does the board of education want to enter into a long-term relationship with us?' The following excerpt is from the field notes of our dinner meeting on February 5, 2001: 'By the end of the meeting the board of education seemed excited about working with us on a change effort, and developing a long-term relationship, though some were still concerned about trusting others with real power.' (Field notes, February 5, 2001, p. 6)

Our meeting with the board of education went well. This meeting was an important and necessary part of the process.

What did and did not work well?

Overall, this Event worked well in such a way that it helped the facilitators to assess the school district's readiness and to make a decision on whether or not to work with the

school district. However, in some areas, the event did not offer enough detail. When this was the case, the facilitators developed their own guidance in order to complete the activity. Event 3.1 lacked sufficient guidance in helping the facilitators to develop an interview protocol. In this case, the facilitators were able to create an interview protocol based on their previous experience and some help from the guidance offered in the GSTE. The interview protocol created in this case worked well in helping the facilitators to gather enough important information to help them decide whether or not to work with the school district. In other cases, facilitators may find it helpful to create their own interview protocol.

Each of the focus group meetings provided the facilitators the opportunity to begin building relationships with the key stakeholders. All the stakeholders seemed eager to begin a change process and for us to serve as their process facilitators.

Recommendations for improving Event 3

1. Currently, the GSTE has a process step that is titled 'Develop your interview protocols'. More guidance is needed in this step to help facilitators develop their interview protocols. Therefore, it is recommended that guiding principles be offered, and that the interview protocol that was developed in this case (see Table 2) be added to the GSTE as a sample.
2. Conduct interviews with stakeholders in focus groups rather than one-to-one. There are pros and cons in using both approaches. However, in this case, because both facilitators did not work in the district, focus group interviews proved to be effective and efficient as a method for generating rich and open dialogue among key leaders.
3. Develop questions regarding race relations in the interview protocol.
4. Develop questions regarding school and district culture. One improvement that could be made to the interview protocol is to include a trigger question regarding the school and district culture. The answers to this question would help the facilitators understand the cultures that exist within each of the schools and in the district as a whole, ultimately allowing the facilitators to make a more informed decision on whether or not to work with the school district.
5. Make sure that all stakeholders understand the purpose of the meetings they are asked to attend (prior to the meeting).
6. Conduct focus group interviews with students and support staff.
7. Try not to conduct important meetings over dinner. Even though dinner meetings create a more relaxed environment, they tend to be very distracting, and people can lose focus.

Event 3.2: negotiate a formal agreement

Deviating from the GSTE, we decided that a formal agreement to embark on this change journey (Event 3.2) was not necessary because we were not being hired by the school district. We felt that not being paid by the district allowed us to maintain neutrality as facilitators, so we resolved to work together with Decatur to get outside grant funding for our involvement. In retrospect, we believe it would have been helpful to have a formal

agreement for the next phase of the change process, even without any monetary compensation involved, for it would have been a useful vehicle for clarifying and formalising expectations and roles. Thus, we offer a final recommendation for improving Event 3:

8. Negotiate a formal agreement for the next phase of the change process, even if no monetary compensation is involved.

Conclusion

Given the importance of systemic change for our children and our communities in the information age, it is essential that we develop effective guidance (design theory) for school districts and communities interested in pursuing such change. The GSTE is under development to meet that requirement. To further develop this knowledge base, a long-term formative research study was initiated in January 2001 on a systemic change effort utilising the GSTE in a small school district in the metropolitan area of Indianapolis.

This chapter addressed the earliest stage of the GSTE's systemic change process. First, it described the change process that was actually implemented for Events 1–3 of the GSTE. Then it identified likely strengths and weaknesses in the implemented process. Finally, it identified some possible improvements in both the implemented process and the GSTE's guidance for similar contexts.

At the time this paper was submitted for publication, the change process in Decatur had completed Events 4–13 and 17–18. The broad range of stakeholders involved in developing a district-wide framework of beliefs, mission and vision have undergone considerable evolution in their mindsets about education and deepening of their understanding of their educational system. They have become deeply committed to their change process, called the 'Journey toward Excellence', and are looking forward to forming the building-based design teams that will create ideal designs for each of their schools, within the strategic directions of the district-wide framework. The first new schools should be operating by fall 2005. For up-to-date information on the Decatur change effort, visit this website: <http://www.indiana.edu/~syschang/decatour/index.html>. Research reports on the following events are available on this site.

We sincerely hope that the advances in our knowledge about the systemic change process generated by the research reported here, together with the research yet to be completed on the subsequent events, will help other school districts to successfully navigate the perilous waters of systemic change, and will spur other researchers to help advance knowledge in this important area.

References

- Banathy, B. H. (1991). *Systems design of education: a journey to create the future*. Englewood Cliffs, NJ: Educational Technology Publications.

- Banathy, B. H. (1992). *A systems view of education: concepts and principles for effective practice*. Englewood Cliffs, NJ: Educational Technology Publications.
- Bloom, B. S., Hastings, J. T. & Madaus, G. F. (1971). *Handbook on formative and summative evaluation of student learning*. New York: McGraw-Hill.
- Caine, R. N. & Caine, G. (1997). *Education on the Edge of Possibility*. Alexandria, VA: Association for Educational Communications and Technology.
- Chatterji, M. (2004). Evidence on 'what works': an argument for extended-term mixed-method (ETMM) evaluation designs. *Educational Researcher*, 33, 9, 3–13.
- Comer, J. P., Haynes, N. M., Joyner, E. T. & Ben-Avie, M. (1996). *Rallying the whole village: the comer process for reforming education*. New York: Teachers College Press.
- Cronbach, L. J. (1963). Course improvement through evaluation. *Teachers College Record*, 64, 672–683.
- The Design-Based Research Collective (2003). Design-based research: An emerging paradigm for educational inquiry. *Educational Researcher*, 32, 1, 5–8.
- Duffy, F. M., Rogerson, L. G. & Blick, C. (2000). *Redesigning America's schools: a systems approach to improvement*. Norwood, MA: Christopher-Gordon Publishers.
- Fullan, M. & Stiegelbauer, S. M. (1991). *The new meaning of educational change* (2nd ed.). New York: Ontario Institute for Studies in Education: Teachers College Press Teachers College Columbia University.
- Greeno, J. G., Collins, A. M. & Resnick, L. B. (1996). Cognition and learning. In D. C. Berliner & Calfee, R. C. (Eds), *Handbook of educational psychology* (pp. 15–47). New York: Macmillan Pub. USA Simon & Schuster Macmillan; London: Prentice Hall International.
- Jenlink, P. M. (1995). *Systemic change: touchstones for the future school*. Arlington Heights, IL: IRI/Skylight Training and Publishing, Inc.
- Jenlink, P. M., Reigeluth, C. M., Carr, A. A. & Nelson, L. M. (1996). An expedition for change. *Tech Trends*, 41, 1, 21–30.
- Jenlink, P. M., Reigeluth, C. M., Carr, A. A. & Nelson, L. M. (1998). Guidelines for facilitating systemic change in school districts. *Systems Research and Behavioral Science*, 15, 3, 217–233.
- Jenlink, P. M., Reigeluth, C. M., Carr, A. A. & Nelson, L. M. (2004) *Facilitating systemic change in school districts: a guidebook*. Unpublished manuscript, Bloomington, IN: The Systemic Change Agency.
- Merriam, S. B. (1998). *Qualitative research and case study applications in education* (2nd ed.). San Francisco, CA: Jossey-Bass.
- Miles, M. B. & Huberman, A. M. (1984). *Qualitative data analysis: a sourcebook of new methods*. Beverly Hills, CA: Sage Publications.
- Reigeluth, C. M. (1993). Principles of educational systems design. *International Journal of Educational Research*, 19, 2, 117–131.
- Reigeluth, C. M. (1994). The imperative for systemic change. In C. M. Reigeluth & R. J. Garfinkle (Eds), *Systemic change in education* (pp. 3–11). Englewood Cliffs, NJ: Educational Technology Publications.
- Reigeluth, C. M. (1999). What is instructional-design theory and how is it changing?. In C. M. Reigeluth (Ed.), *Instructional-Design Theories and Models: A New Paradigm of Instructional Theory* Vol. 2 (pp. 5–29). Mahwah, NJ: Lawrence Erlbaum Associates.
- Reigeluth, C. M. & Frick, T. W. (1999). Formative research: a methodology for improving design theories. In C. M. Reigeluth (Ed.), *Instructional-design theories and models: a new paradigm of instructional theory* (pp. 633–651). Mahwah, NJ: Lawrence Erlbaum Associates.
- Schlechty, P. C. (1990). *Schools for the twenty-first century: leadership imperatives for educational reform* (1st ed.). San Francisco, CA: Jossey-Bass Publishers.
- Sizer, T. R. (2002). *The common principles*. Retrieved February 11, 2004, from http://www.essentialschools.org/pub/ces_docs/about/phil/10cps/10cps.html
- Squire, K. D. & Reigeluth, C. M. (2000). The many faces of systemic change. *Educational Horizons*, 78, 3, 143–152.
- Stringfield, S., Ross, S. M. & Smith, L. (1996). *Bold plans for school restructuring: the new American schools designs*. Mahwah, NJ: Lawrence Erlbaum Associates.

- Thiagarajan, S., Semmel, D. S. & Semmel, M. I. (1974). *Instructional development for training teachers of exceptional children: a sourcebook* (No. ED 090 725). Bloomington, IN: Indiana University.
- Yin, R. K. (1984). *Case study research: design and methods*. Beverly Hills, CA: Sage Publications.