The purpose of this mixed methods follow-up single case study was two-fold: to determine if a school district was able to sustain a professional learning community (PLC) and to identify factors that enhanced, inhibited, or promoted the sustainability of a PLC from a district-wide perspective, with particular focus on how a change in leadership, i.e. a new superintendent, affected the sustainability of PLC attributes. In addition, the role of trust in influencing the sustainability of a professional learning community will be discussed in this paper.

Keywords: professional learning communities (PLCs), sustainability, trust, and PLC tools
Senge, 1990) underscores the positive impact that PLCs may have on teachers and schools. Professional learning communities are producing success, for example, in the implementation of PLCs in the Chicago Public Schools. Eason-Watkins (2005), the chief education officer for the district, shares that the effects of implementing PLCs have “resulted in expanded instructional capacity for many schools with instruction that is differentiated, engaging, challenging, and based on proven best practices” (p. 205).

THEORETICAL FRAMEWORK

The design was a case study of one district utilizing mixed-methods within the context of a theoretical framework based on the work of Hord (1997, 2004). According to Hord (2004), “the literature is quite clear about the characteristics of academically successful professional learning communities” (p. 7). Her work, which spanned more than a decade and involved the study of successful PLCs, found that “a number of characteristics were identified with these communities. The five major themes are: supportive and shared leadership, shared values and vision, collective learning and application of that learning, supportive conditions, and shared personal practice” (p. 1).

Numerous studies have been conducted and have focused on the development and outcomes associated with professional learning communities at the campus level. However, research related to PLCs, when taking into consideration the school district as the focus, is relatively new (Ostmeyer, 2003). School districts need to be studied to explore how PLCs are not only implemented but sustained at this level. Researchers need to discover actions, processes, and strategies that influence and directly link the presence of professional learning communities to student achievement and learning district-wide (Pankake, Huffman, & Moller, 2004).

PURPOSE

According to previous research conducted at Western Crossing ISD (Ostmeyer, 2003), “a study would be warranted to determine the effects that a change in the leadership of a district has on the attributes of a professional learning community that have been developed over a span of a few years under a former superintendent” (p. 273). Subsequently, the purpose of this study was two-fold: to determine if a school district was able to sustain a professional learning community and to identify factors that enhanced, inhibited, or promoted the sustainability of a PLC from a district-wide perspective with particular focus on how a change in leadership, i.e., a new superintendent, affected the sustainability of PLC attributes.

METHODS

The method of research was a follow-up single-case study of one school district. The district was previously studied by Ostmeyer in 2003 and found to have Hord’s five dimensions of a PLC. The school district which is the focus of the study is located in the southwestern United States. It is in a rural area, approximately one hour from a major metropolitan locale. Western Crossing ISD (WCISD [pseudonym]) has 12 campuses, with a total student population of 7,182. The ethnic distribution is 78% White, 17% Hispanic, 3% African American, and 2% Asian/Pacific Islander and Native American. About 36% of the student population is identified as economically disadvantaged, and 34% is considered at-risk.

A computer qualitative software program, Ethnograph, was used to disaggregate, identify emerging patterns and themes, identify specific relevant passages found in the interview transcripts, and designate descriptive codes to the paragraph or passage. The SPSS Base statistical software program was used to analyze and report results from the online survey.

A mixed methods approach (Creswell, 2003) for gathering data on one school district was utilized. The interview process included the superintendent, a school board member, seven central office administrators, 10 campus principals, and 15 teachers. All interviews were audio-taped and transcribed. Both qualitative and quantitative methods of data gathering were used. The methods utilized to collect such data came from respondent interviews, field
observations, document review, artifacts, state agency data, and survey results with the intent that “collecting diverse types of data best provides an understanding of a research problem” (Creswell, 2003, pp. 20-21). The superintendent, a school board member, central office administrators, campus principals, and teacher interviews, field observations, district and campus artifacts, teacher online survey responses, and state education agency data were used to gather evidence regarding the district’s efforts to create and sustain change, continue to develop and sustain attributes of a professional learning community, and improve student performance.

Data was gathered and analyzed to address the following questions:

1. What characteristics of a professional learning community continue to be present in Western Crossing ISD?
2. What factors have enhanced, inhibited, and or promoted the sustainability of a PLC from a district-wide perspective?
3. What processes have been used to sustain WCISD as a PLC?
4. Has development toward and sustainability of a PLC influenced student performance at WCISD?

Conducting research with a case study design, according to Yin (2003), allows investigators to hang onto the holistic and meaningful characteristics of a real-life event. Furthermore, Patton (1990) states that “select case studies provide depth, detail, and individual meaning” (p. 17). In addition, the case study can be thought of as a method of collecting comprehensive, systematic, and in-depth information. Yin (2003) describes case studies “as the preferred strategy when ‘how’ or ‘why’ questions are being posed, when the investigator has little control over events, and when the focus is on a contemporary phenomenon within some real-life context” (p. 1). Moreover, case studies are viewed as one of the most effective means of contributing to the understanding of the research study through the approximating of words and illustrations in reports of the natural experience reached in ordinary personal involvement (Lincoln & Guba, 1985).

RESULTS

Data were reviewed, clustered, and coded into themes. The analysis revealed the following findings and conclusions:

• All five of Hord’s PLC dimensions were found to be present in WCISD. Shared Personal Practice was the least evidenced. This is the same finding that Ostmeyer (2003) reported. While still the weakest dimension, the district has made a concerted effort to address this dimension, more so than the previous administration.

• Several factors were identified as enhancing PLCs. Interestingly, while certain identified components, such as building capacity, collaboration, and continuous improvement enhanced the PLC dimensions in the district, certain other components (issues of trust, inadequate communication, and inadequate decision-making) or even the same components, if not addressed or maintained, turned into inhibitors of the dimensions of a PLC.

• Helping the district to enhance its function as an organization overall was the fact that they had now some concrete tools—for example, the design and use of the decision-making matrix and the scorecard. Instead of just talking about continuous improvement, the district used a model to ensure that continuous improvement was taking place: the Baldrige Model for Excellence. Even though the previous superintendent initiated and implemented a PLC and planted the seeds, philosophically, of continuous improvement, the current superintendent is actually responsible for following through on the implementation piece of continuous improvement.

• The district’s communication and decision-making practices were initially influenced by a lack of trust. This is consistent with the literature indicating that most schools and districts operate from a lack of trust when change is imposed. A superintendent coming into a district to sustain change in an organization needs to be especially attuned to issues of improving/building trust with the staff and the communication power patterns.
• The efforts of the current superintendent will likely allow an incoming (third) superintendent an even easier time because the tools and knowledge and skill set are already in place and are being utilized district-wide. According to Hord (2004), “the PLC is not an improvement program or plan, but it provides a structure for schools to continuously improve by building staff capacity for learning and change” (p. 14).

• Sustainability of a PLC positively influenced student performance. This was accomplished through specific district leadership responsibilities made possible via the PLC infrastructure: longer than usual superintendent tenure; factors and processes such as building capacity; designing and using a decision-making matrix and a scorecard; data-driven actions and practices; and collaboration. The use of a continuous improvement model, such as the Baldrige Model for Excellence, supported the literature on capacity building. Fullan (2005) referred to “capacity building” as that which involves developing the collective ability – dispositions, skills, knowledge, motivation, and resources – to act together to bring about positive change” (p. 4). In addition, “higher levels of implementation have been associated with increased student gains on the state accountability measures” (Hall & Hord, 2006, p. 30).

From the interview protocol conducted in WCISD, responses by participants provided evidence in response to the specific items/questions that were directly aligned to the dimensions of professional learning communities: shared decision-making; visions for school improvement; staff’s collective learning and application; shared personal practice/peer review and peer feedback; and school conditions and capacities that support staff’s learning organization arrangement.

A detailed summary of research findings in response to research questions 1 through 4 are discussed within the context of the sustainability of a PLC from a district-wide perspective with particular focus on how a change in leadership, i.e. a new superintendent, affected the PLC attributes.

Summary of Major Findings—Research Question #1: What Characteristics of a PLC Continue to be Present in Western Crossing ISD?

In summary, Ostmeyer’s (2003) initial findings confirmed that WCISD appeared to have met four of the five PLC dimensions as defined by Hord (1996, 1997). Findings from the current study identified Hord’s characteristics of a PLC as identified through interview and survey responses. They included:

**Supportive and shared leadership.** Respondents reported being involved in the decision-making process at the district and campus levels through various media. The media included such things as campus and district level committee assignments that supported involvement in the district’s strategic planning initiatives as well as with the site-based decision-making processes involved to develop the district and campus improvement plans. Regarding the online survey, 74.9 % of the respondents selected 3 (agree) or 4 (strongly agree) on the online survey. This was based on a Likert scale of 1 to 4, in which 1 represented strongly disagree and 4 represented strongly agree. This seems to indicate that the dimension of supportive and shared leadership is present in WCISD.

**Shared values and vision.** Respondents described their involvement in the development of the vision and mission at the campus and district levels. Participants also shared their involvement in gathering different types of information to develop shared goals. In addition, there was also involvement in the strategic planning process at the district level, which included developing, reviewing, and updating the mission and set of beliefs for the district. Regarding the online survey, 76.1 % of the respondents selected 3 (agree) or 4 (strongly agree) on the online survey. This was based on a Likert scale of 1 to 4, in which 1 represented strongly disagree, and 4 represented strongly agree. This seems to indicate that the dimension of shared values and vision is present in WCISD.

**Collective learning and application of learning.** Respondents reported having informal and formal discussions and meetings throughout campuses and the district about addressing the different needs of students. Also, the staff were involved in continuous improvement (Baldrige Model for Excellence) professional staff development at different levels: principals, central office and teachers. Staff reported collective application of new knowledge of continuous improvement to problem-solve campus and district issues. In some cases, this new knowledge was applied at the classroom and student level. Regarding the online survey, 78.9 % of the respondents selected 3 (agree) or 4 (strongly agree) on the online survey. This was based on a Likert scale of 1 to 4, in which 1 represented strongly
**Supportive conditions.** Respondents claimed support in the areas of collegiality and trust through regular meetings and annual retreats which, in turn, encouraged collective learning through book studies at the campus and district levels. At the campus level, common planning times, time to plan and meet to collaborate, space for meetings (as in retreats), creation and implementation of policies such as the decision-making matrix and scorecard, and committee and team structures were encouraged by principals, central office, and the superintendent to be part of the organizational structure. The superintendent continued to meet regularly with central office administrators and principals. For example, Root Camp, an annual district retreat specifically focused on addressing problems and issues facing the district. Regarding the online survey, 75.3% and 69.6% of the respondents, for relationships and structures, respectively, selected 3 (agree) or 4 (strongly agree) on the online survey. This was based on a Likert scale of 1 to 4, in which 1 represented strongly disagree, and 4 represented strongly agree. This seems to indicate that the dimension of supportive conditions—which consists of relationships and structures, respectively—is present in WCISD.

**Shared practice.** Respondents reported limited progress in terms of teacher peer review and feedback and affording time to meet. Respondents shared that there were limited visits between teachers, central office administrators and teachers, and teachers visiting other campuses. Nevertheless, some teachers and principals shared that efforts were underway to create “collaboration time” at the campus level so that teachers could meet on a regular basis to support individual teachers and the local campus community improvement efforts. Regarding the online survey, 65.7% of the respondents selected 3 (agree) or 4 (strongly agree) on the online survey. This was based on a Likert scale of 1 to 4, in which 1 represented strongly disagree, and 4 represented strongly agree. This seems to indicate that the dimension of shared practice is present in WCISD.

Of all those responding to the shared practice items on the survey, forty percent (40.1%) of respondents identified strongly disagree to disagree regarding the following survey item: “opportunities exist for staff to observe peers and offer encouragement.” Half (50.1%) of the respondents reported that they strongly disagree to disagree regarding the following survey item: “the staff provide feedback to peers related to instructional practices.”

Thus, five out of five of Hord’s dimensions were identified to be present at WCISD, including supportive and shared leadership, shared values and vision, collective learning and application of learning, supportive conditions, and shared practice. The fifth dimension, shared practice, was identified as limited at the campus levels.

**Summary of Major Findings—Research Question #2: What Factors Have Enhanced, Inhibited or Promoted the Sustainability of a PLC from a District-wide Perspective?**

Western Crossing ISD faced several challenges and changes as the previous superintendent, identified by staff as a change agent, moved on to another school district and a new superintendent took the helm. Respondents shared that the district initially faced particular challenges and changes as the new (current) superintendent transitioned into her role.

At the time of the follow-up case study, several factors emerged from participants:

- Factors that inhibited the sustainability of a PLC—communication and decision-making.
- Factors that enhanced the sustainability of a PLC—building capacity, the design and use of a decision-making matrix, a scorecard, and the Baldrige Model for Excellence—continuous improvement, and data driven actions and practices (data-driven decision-making).
- Factors identified as inhibitors by interviewees occurred early in the current superintendent’s tenure at WCISD, not during the time that data were gathered for this study.
- Inhibitors identified as weaknesses initially were addressed and turned into strengths through the creation, use, and application of specific actions and tools. These actions and tools were identified as enhancers.
- The previous superintendent was referred to as a change agent.
- The current superintendent was hired under a set of expectations to continue the work already in place. Two
additional categories or themes emerged in response to the following interview questions: “How do decisions get made in the district?” and “How would you rate your involvement in the decision-making process at the district and campus levels?” The themes were collaboration and staff development—collaboration within the campus and across the district and building capacity (job embedded staff development) district-wide through the Baldrige process.

According to interview data, the district designed and used a decision-making matrix, scorecard, and supported district-wide implementation of the Baldrige Model for Excellence, which is continuous improvement to address those issues.

Respondents identified factors that inhibited, enhanced, and or promoted the sustainability of a professional learning community across the district. However, note that the factors identified as inhibitors by interviewees occurred early in the current superintendent’s tenure at WCISD, not during the time that data were gathered for this study. Inhibitors were identified as weaknesses initially, but later on, during the current superintendent’s tenure, they were addressed and turned into strengths through the creation, use, and application of specific actions and tools. These actions and tools were identified as enhancers.

Summary of Major Findings—Research Question #3: What Processes Have Been Used to Sustain Western Crossing ISD as a PLC?

The following dimension processes were identified within the district:

- The first dimension—supportive and shared leadership—identified various processes. These processes included site-based decision making at the campus and district levels as well as such processes as faculty meetings, campus improvement teams, books studies, grade level meetings, department level meetings, vertical team meetings, DEIC, and leadership meetings.
- The second dimension—shared values and vision—identified various processes. These processes included collaborative development of vision and mission statements at the district and campus levels. Further processes included campus and district level staff that gathered numerous types of information to determine whether goals were met. In addition, the implementation of the Baldrige Model for Excellence, a continuous improvement process, and the use of district retreats encouraged staff to examine and share data, six weeks assessments, and assisted in resolving issues of trust and miscommunication.
- The third dimension—collective learning and application of learning—identified the following processes: informal and formal meetings and discussions about the needs of students at a campus and district level. Another process included disaggregation of data; job-embedded staff development and follow-up activities such as staff training offered through continuous improvement (the Baldrige Model for Excellence) and group learning through book studies.
- The fourth dimension—supportive conditions—identified the following processes: structural factors such as retreats and meetings that promoted teamwork; collegiality, and implementation of effective communication policies that allowed teachers and other staff to discuss the real needs of students and the district; the creation of “collaboration time” at some of the campuses; and the design and implementation of a decision-making matrix and scorecard.
- The final dimension—shared practice—was identified as having limited success, as was also documented by the previous study (Ostmeyer, 2003). However, the district identified encouraging peer review and feedback more so than during the tenure of the previous superintendent and specifically identified, through respondent interviews, the creation and implementation of “collaboration time” at a few campuses.

According to the findings, specific processes were used to sustain WCISD as a professional learning community. Also, the processes used supported Hord’s five dimensions of a professional learning community across the district. The processes included site-based decision making at the campus and district levels; using faculty meetings, campus improvement and district leadership teams; department and vertical team meetings; implementing book studies and district retreats focused on continuous improvement; collaborative development of vision and mission state-
ments at the campus and district levels; using six week assessments; disaggregated data; and gathering different types of data to make data-driven decisions. In addition, other processes used included the implementing of the Baldrige Model for Excellence. Moreover, the design and implementation of a decision-making matrix and scorecard were additional processes used by WCISD. The district identified retreats and different types of meetings that focused on teamwork, collegiality, and collaboration.

Summary of Major Findings—Research Question #4: Has Development toward and Sustainability of a PLC Influenced Student Performance in Western Crossing ISD?

As documented in the previous and current studies,

- AEIS data revealed that scores in the follow-up single-case study consistently rose from 2003 to 2006.
- From 2003 to 2006, the percent of students passing the district TAKS test rose in the areas of reading (+17%), math (+22%), writing (+17%), social studies (+13%), science (+34%), and the total number of students passing all test areas (+27%).
- The only decline was indicated in social studies (-1%) from 2005 (91%) to 2006 (90%).
- Note that TAKS, in addition to testing reading, writing, and math, included testing for social studies and science, whereas TAAS included testing only for reading, writing, and math.
- The district AEIS rating went from “Recognized” (R) to “Acceptable” (AA) during the 2002 to 2006 academic period. In 2002, the district was “Recognized,” and from 2004 through 2006 the district was rated “Acceptable.”
- In 2004, WCISD had 5 “Recognized” schools and 6 “Academically Acceptable” schools, whereas, in 2006, the district had 9 “Recognized” campuses and 2 “Academically Acceptable” campuses.
- Teachers, principals, and central office staff were aware of the superintendent’s goals, expectations, and district initiatives.
- The district focus is now on improved student achievement through the implementation of the Baldrige Model for Excellence—continuous improvement.
- Central office and principals stated that the use of a scorecard became a major focus in the district.
- District goals were focused on student achievement.

According to archival data (AEIS) from the Texas Education Agency, standardized exams indicated that, during the five-year span (2002—2006) of data that was analyzed, WCISD showed consistent gains across all tested academic subjects.

IMPLICATIONS

The fact that stakeholders did not differ in their perceptions—actually, agreement existed among the perceptions held by stakeholders, teachers, principals, central office, superintendent and board member as to the district meeting the dimensions of shared leadership, shared values and vision, collective learning and application of that learning, supportive conditions, and shared personal practice—is indicative that the local PLC has been sustained over the past ten years at Western Crossing ISD. The findings of this study are consistent with the literature which indicates that there is a growing body of research concerning the role of central office staff in developing capacity in order to implement and sustain school reforms. Furthermore, according to Fullan and Stiegelbauer (as cited in Hord, 2004), the single most important key player within a district is the central office administrator.

The factors that enhanced and promoted the sustainability of a professional learning community from a district-wide perspective included the initiation and implementation of district-wide staff development in the form of continuous improvement (Baldrige Model for Excellence) which helps address issues of trust, collegiality, and communication within the district. Thus the processes—the physical, tangible end-products that staff use on a daily basis
in their workplace; the creation and implementation of a data-driven decision-making matrix; the use of continuous improvement planning and management tools; and the creation and use of a score card, for example—have allowed the district to operate from the view that, in order to continue to move forward toward increased student achievement, the district requires the use of very specific tools and resources for all staff in order to move the district forward. It is process, not programs, that makes a positive difference at Western Crossing ISD in sustaining the dimensions of a Professional Learning Community.

**CONCLUSION**

Numerous researchers (Astuto, Clark, Read, McGree, & Fernandez, 1993; Hord, 1997 & 2004; Huffman & Hipp, 2003; Pankake, Huffman, & Moller, 2004; Ostmeyer, 2003) have conducted studies or elaborated on studies pertaining to the implementation and benefits of professional learning communities to schools. However, research related to PLCs is relatively new to the field of education, especially when one takes into consideration the school district as the focus. As Ostmeyer (2003) observes: “research related to the entire school district as a focus is still an uncharted territory” (p. 8). Elmore (as cited in DuFour, Eaker, & DuFour, 2005) comments that “nobody’s tried to do this (PLCs) work on this scale” (p. 192), and Fullan (2005) declares that the sustainability of professional learning communities requires systemic support. Researchers need to discover ways that influence and directly link the presence of PLCs to student achievement and learning district-wide (Pankake, Huffman, & Moller, 2004). Thus this call for district-wide sustainable professional learning communities is relatively new.

Leithwood and Riehl (2003) report that “effective leaders help the school to become a professional learning community to support the performance of all key workers, including teachers and students” (p. 5). In addition, Fullan, Hill, and Crevola (2006) report that “leadership is the turnkey to system transformation” (p.88). It should be noted that the new WCISD superintendent was not initially involved in implementing the school improvement model, but was nonetheless hired with the understanding that professional learning communities were now part of the district culture.

According to DuFour and Eaker (1998), “there is growing evidence that the best hope for significant school improvement is transforming schools into professional learning communities” (p. 17). Thus, this case study, and its results from semi-structured interviews and surveys, permitted both a richer description and a more complete picture of a professional learning community at the district level and, more specifically, shared how PLCs provide structure to help the organization, as well as the people within the organization, to grow and develop (Hord, 2004), especially when issues of trust are addressed. Creating a trusting environment at WCISD became an essential part of sustaining a professional learning community, particularly as the school district transitioned from one superintendent to another within a ten year period. Of especial benefit to practitioners are the specific and practical strategies regarding how to create sustainable PLCs.

**REFERENCES**


Hord, S. M. (1996). *School professional staff as learning community.* Austin, TX: Southwest Educational Development Laboratory.


Jesus “Chuey” Abrego, Ed.D. (chuey.abrego@utb.edu) is Assistant Professor of Educational Leadership in the Department of Educational Psychology and Leadership Studies in the College of Education at the University of Texas-Brownsville and Texas Southmost College in Brownsville, Texas. His research and teaching interests focus on educational reform, teacher leadership, professional development, response-to-intervention, organizational change, leadership, and schools and districts as professional learning communities.

Anita M. Pankake, Ed.D. (apankake@panam.edu) is Professor of Educational Leadership at the University of Texas-Pan American in Edinburg, Texas. She has been a teacher and administrator in PK-higher education.