

# Rethinking District Reform

**EDUCATIONAL LEADERSHIP & MANAGEMENT | RESEARCH ARTICLE**

## Coherent district reform: A case study of two California school districts

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## EDUCATIONAL LEADERSHIP & MANAGEMENT | RESEARCH ARTICLE

# Coherent district reform: A case study of two California school districts

Miriam Ezzani<sup>1\*</sup>

**Abstract:** The purpose of this paper is to enhance our understanding of districts that are implementing sustainable professional learning in data-driven decision-making (DDDM) to improve student achievement. The data-informed leadership framework, comprised of leadership practices that acknowledge the complexities that play into data use, guided the inquiry. Data collection included semi-structured interviews, observations, and documents. I argue that whole district reform is possible in ways that increased student achievement results on standardized tests across these two districts. Findings indicate that the confluence of: a focus on DDDM, systemic and comprehensive professional learning, and distributed leadership led to consistent student achievement gains over a 3–5-year period. This study suggests that sustainable professional learning in DDDM through structures and processes is critical to how district reform takes place to achieve equitable student results.

**Subjects:** Education; Social Sciences; Urban Studies

**Keywords:** academic achievement; data-driven decision-making; distributed leadership; district reform; professional learning; urban schools

### 1. Introduction

More than a decade has now passed since the passage of the No Child Left Behind Act (2001) and any form of fair assessment would indicate that districts and their schools continue to struggle to educate students equitably, and have yet to see parity in student achievement (Skrla, McKenzie, & Scheurich, 2009; Theoharis & Brooks, 2012). But to despair or to declare nothing has really worked would be no less superficial than continuing to search for the proverbial “silver bullet.” For in fact,



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### ABOUT THE AUTHOR

Miriam Ezzani teaches graduate students in the Department of Teacher Education and Administration at the University of North Texas. With academic and professional roots in urban education, her area of scholarship is in educational justice within the context of organizational leadership, professional learning, and district and school reform. She has served as a school administrator and prior to that as a literacy coach and teacher in the Los Angeles Unified School District. She is an alumna of the University of Southern California where she earned a Doctorate in K-12 Educational Leadership.

### PUBLIC INTEREST STATEMENT

What makes a great school district?—Extraordinary leaders who sustain an environment where students and educators are learning. Like other professions, such as medicine and law, people collaborate and use their collective genius for the good of the whole. This case study of two California school districts demonstrate how they effectively improved instruction and student achievement, particularly for under-served students. It is hoped that this case study will contribute to the knowledge base in the field and ultimately make a difference in the lives of our students in K-12 public education.

many efforts to revise, rethink, and rearticulate how districts and schools attempt to educate varied student populations, have proven to be verifiably productive (Fullan, 2007; Honig, 2012; Reeves, 2004). Three areas of scholarship in educational leadership, where the research has provided valuable proof of efficacy, are in the area of DDDM (Earl & Katz, 2006; Datnow, Park, & Wohlstetter, 2007), professional learning (Hale & Moorman, 2003; NSDC, 2008; Peterson, 2002; Togneri & Anderson, 2003), and distributed leadership (DL) (Harris & Spillane, 2008; Spillane, 2009; Spillane, Halverson, & Diamond, 2004).

Studies specific to district reform, which is the focus of this paper, have shown that in order for DDDM practices to be effective, such practices have to be present at all levels of the system—district, school, and classroom (Darling-Hammond & Orphanos, 2006; Fullan, 2007). It should not come as a surprise to anyone that efficacious, pervasive, and productive use of data does not come about on its own—unfortunately this is not an “organic” development, once data are simply made available. The efficacy in the use of DDDM that I speak of has to be comprehensively and systematically taught and learned, using the best professional learning practices that we are aware of. While a significant body of research exists which has closely looked at schools and districts utilizing DDDM to maximize student outcomes, few studies have examined the systemic and comprehensive role that professional learning plays. Much of the reform research has focused on school principals and how their roles are pivotal in orchestrating conditions that bring about successful student outcomes. However, our aim is to move beyond the school building to effectively functioning systems (districts) that produce success for their greater student population.

The purpose of this paper is to carefully examine district leadership practices in professional learning which enhance student outcomes system wide. I first review the literature on DDDM, professional learning, and DL. Thereafter, I will discuss the findings from a multi-site qualitative case study of two urban school districts in California. I align the findings to previous research in the field and argue that substantial district achievement gains can be made over time with coherent district reform that involves the confluence of three factors: a focus on DDDM, systemic and comprehensive professional learning in how to use data to make decisions, and DL.

## **2. The role of DDDM in educational reform**

DDDM can be an integral part of district reform, and although seen by many as the “latest fad,” I believe time has informed us that it is here to stay. Scholars have shown that DDDM is seen as having substantial potential to advance efforts in order to improve learning outcomes (Darling-Hammond & Orphanos, 2006; Datnow et al., 2007; Earl & Katz, 2006; Honig, Venkateswaran, McNeil, & Twitchell, 2014; Stringfield, Reynolds, & Schaffer, 2008; Togneri & Anderson, 2003). The purpose behind DDDM is that analysis of student data will enable schools, districts, and states to target areas where progress is needed. DDDM serves as a gauge to evaluate and monitor success or failure of action plans put into place to improve a given system whether at the district, school, or classroom level. Datnow et al. (2007), in a study of leaders in the schools and systems, argued that DDDM should be a norm and explicitly stated “... data use is non-negotiable” (p. 71). From an organizational perspective, the superintendent, as the head of the organization, can promote a culture of data use through structures and processes which promote dialog and learning. Districts through policies and practices can establish the groundwork for a tiered process of DDDM at all levels of the system (Datnow et al., 2007; Fullan, 2007).

The varying beliefs, however, among educators advance or hamper efforts toward system-wide use of DDDM practices. For instance, in a two-year study, of a large K-12 urban school district, it was found that individuals responded differently to federal and state policy pressures. The response is fashioned by beliefs related to evidence and research as well as previous reform policies. Responses were also found to differ at various levels of a school system creating different views among district leaders, principals, and teachers (Coburn & Talbert, 2006). The coexistence of conflicting or different views at the various levels can hamper the use of data to make decisions which ultimately effect the quality of education for students.

To mitigate difficulties in district reform efforts, a multi-pronged approach toward coherent use of data to make decisions is clearly articulated by numerous scholars in articles and policy briefs (Datnow et al., 2007; DuFour, DuFour, Eaker, & Many, 2006) with the following recommendations: invest resources to develop an integrated state data system and to develop/maintain local data systems; develop web-based guidelines for best practices; monitor progress in data-based improvement goals through appraisal of key district leaders and principals; invest in resources to attain technological capacity to collect, organize, analyze, and report data; encourage data accessibility, ownership, and ease of use at multiple levels of the system; and, invest in human resources to help in developing capacity of effective data use. A quantitative longitudinal study capturing the implementation of various district-level reform models show no results in year two but some positive results in year four. Implementing tools for the sake of garnering data void of ongoing professional learning is ineffective. Districts must couple the use of DDDM with ongoing professional learning for school leaders and teachers.

### **3. Professional learning to build capacity of school leaders**

If professional learning is to have relevance, then it should be done in tandem with activities that reflect instructional improvement and should not be detached from its organizational system—the district. Fullan (2002) confirms that the learning should not be done in isolation, but rather to produce individual and organizational habits and structures which encourage learning on a continuum. The relationship between the district office and its schools with respect to student achievement was the focus of a literature review by Mac Iver and Farley (2003), which noted that professional development (PD) for teachers and principals is one of four important district roles. They found consensus in the literature regarding PD for principals and teachers in the interpretation of data in order to make sound instructional decisions. Elmore (2002, p. 5) punctuates this point by stating, “Accountability must be a reciprocal process. For every increment of performance I demand from you, I have an equal responsibility to provide you with the capacity to meet that expectation.” A number of scholars (Bloom, Castagna, & Warren, 2003; Coburn & Talbert, 2006; Fuhrman & O’Day, 1996; Mac Iver & Farley, 2003) indicate there are vital steps to actualizing a system-wide PD plan for improvement of instruction through data use. Based on case studies of district reform, scholars indicated some or a combination of the following professional learning actions: (1) public acknowledgment of unacceptable student achievement, (2) take responsibility for the crisis, (3) make long-term commitments and provide novel supports, (4) peer learning and formal mentoring, (5) study groups, (6) support groups to build leadership skills, (7) visitations to other schools, (8) monthly conferences and institutes, (9) one-on-one coaching from the district office which includes school walk-throughs. However, recent studies show professional learning in DDDM remains dismissal with many teachers no more prepared than they were when the NCLB legislation passed in 2001 (Dunn, Airola, & Garrison, 2013; Samuel, 2008). Ongoing data use as a professional endeavor to meet school improvement goals is commendable and offers teachers frequent learning opportunities (Murray, 2014; Wei, Darling-Hammond, Andree, Richardson, & Orphanos, 2009). However, structures and processes are needed to move toward system-wide improvement.

### **4. System-wide improvement and distributed leadership**

A growing body of research identifies DL as a strategy of effectively functioning school systems (Fullan, 2007; Leithwood, Louis, Anderson, & Wahlstrom, 2004). Harris and Spillane (2008) describe DL as a leadership practice to pave the way for organizational reform and in Spillane, Healey, and Mesler Parise (2009) DL was used as a conceptual framework for studying school leadership. As with many terms that have made their way into the educational lexicon, the meaning of “distributed” or “distributive” leadership can be somewhat elastic and lacking a fixed specificity.

Based on the seminal work of Spillane, Halverson, and Diamond (2001), Spillane, Parise, and Sherer (2011), and Spillane, Reiser, and Gomez (2006), scholars provided empirical evidence on the strategic use of DL as an effective way to improve the performance of an organization (Day, 2011; Harris, 2013).

Hargreaves and Fink (2004) used the term “distributed leadership” (DL) to define the concept as shared decision-making that also critically relies on a shared vision. Other scholars point to the theoretical and practical sense of the DL concept stating that it invokes multiple leaders in shared leadership and this is endemic to effective organizations (Harris, 2007; Harris & Spillane, 2008; Spillane et al., 2004).

DL research, although recent, is growing and has debunked the proposition between ceremonial-type leadership and institutional performance. A decade of work by researchers such as Harris and Spillane have inspired some to investigate other manifestations of DL, such as: DL’s impact on teaching and learning (Hulpia & Devos, 2010; Leithwood et al., 2009) and affirming relationship between DL and student performance (Heck & Hallinger, 2009; Mascal, Leithwood, Strauss, & Sacks, 2009). Dieronitou (2014), in reviewing the DL scholarship of Fullan and Harris, calls for DL links to empirical evidence by investigating the “how” and “what.” Harris (2013) describes DL as “... actively brokering, facilitating and supporting the leadership of others.” It is this definition that I intend to utilize for this particular paper with the idea that DL is a strategy for capacity building and leads to high-performing organizations where teachers are learning through ongoing collaboration.

My goal in this paper is to show how the concept(s) implied by DL, coupled with a focus on data-driven decision-making and systemic professional learning, productively actualized at two California districts. To add to the research in the field, the Element of data-informed leadership framework by Knapp, Swinnerton, Copland and Monpas-Huber (2006) was one tool used to capture the activities of districts where data play a central and vital role in organizational leadership. This framework can also be applied by districts to identify and understand what is or is not happening in their particular setting.

## 5. Contextual overview

Data sources for this study were drawn from two high-performing California K-12 urban school districts that established structures for ongoing professional learning in DDDM. Buck Unified School District (BUSD) and D’Angelo Unified School District (DUSD), pseudonyms, were purposefully selected because of their strategic plans which included a focus on DDDM, a prolonged PD plan, and sustained upward mobility district wide on state accountability testing. An elementary, middle, and high school were selected in each of the districts. Selection of schools and school leaders was purposeful based on superintendents’ recommendations of leaders deemed highly effective in implementing professional learning in DDDM to their colleagues in district PD. An equally important consideration was to select schools which closely matched the demographics of the district. The following are the districts’ summary profiles.

BUSD is an urban district that educates approximately 21,000 students with 50% of the schools categorized as socioeconomically disadvantaged. Within the district, there are nineteen elementary schools, five middle schools, three comprehensive high schools, a college prep 7–12 school, a continuation high school, infant/children centers, extended day care, and an adult school. The diversity of the community is reflected in the district’s student population: Asian/Pacific Islander 28%, African-American 10%, English learners 22%, Filipino 10%, Hispanic 41%, Other 3%, Special Education 10%, and White 8% (California Department of Education, 2008, Table 1).

Similarly, DUSD serves a culturally diverse student population of approximately 30,000 students, with 64% of the schools categorized as socioeconomically disadvantaged. Within DUSD, there are twenty elementary schools, four middle schools, three comprehensive high schools, a magnet high school, one continuation high school, and a developmental center for students who are multi-handicapped—a total of 30 schools. The district’s K-12 population is: 12% Asian, 1% African-American, 7% Filipino, 19% English learners, 23% Hispanic or Latino, 9% Special Education, and 55% White (Table 2).

**Table 1. California Department of Education, Accountability Progress Report, Buck (2008)**

Buck USD API						
Number of students in 2008 growth API		2008 growth	2007 base	2007–2008 growth		
15,478		795	784	11		
				Subgroup API		
				2008 growth	2007 base	2007–2008 growth
African-American not of Hispanic origin	1,471	Yes		733	715	18
American Indian or Alaska Native	33	No				
Asian	4,820	Yes		915	906	9
Filipino	1,543	Yes		858	850	8
Hispanic or Latino	6,018	Yes		696	681	15
Pacific Islander	145	Yes		775	760	15
White (not of Hispanic origin)	1,324	Yes		796	786	10
Socioeconomically disadvantaged	5,962	Yes		697	685	12
English learners	4,155	Yes		697	683	14
Students with disabilities	1,457	Yes		564	554	10

**Table 2. California Department of Education, Accountability Progress Report, D’Angelo (2008)**

D’ Angelo USD API						
Number of students in 2008 growth API		2008 growth	2007 base	2007–2008 growth		
20,311		818	807	11		
				Subgroup API		
				2008 growth	2007 base	2007–2008 growth
African-American (not of Hispanic origin)	260	Yes		761	746	15
American Indian or Alaska Native	39	No				
Asian	2,713	Yes		919	908	11
Filipino	1,269	Yes		858	845	13
Hispanic or Latino	4,528	Yes		735	725	10
Pacific Islander	24	No				
White (not of Hispanic origin)	11,390	Yes		822	811	11
Socioeconomically disadvantaged	8,630	Yes		755	742	13
English learners	10,598	Yes		768	749	19
Students with disabilities	1,747	Yes		581	576	5

A qualitative methodology was best suited for the collection and analysis of data with the hope that the study will assist practitioners in seeing the connective threads that bind the districts and their schools in actualizing system-wide improvement.

### 6. Design of the study

This qualitative case study of two urban school districts took place over five months and included semi-structured interviews, observations at the district and school levels, and artifacts gathered from the districts, schools, and classrooms. The choice of a small select sample, an elementary, middle, and high school at each district provided the opportunity to obtain detailed, sensitive, and descriptive data for a study of this scope rather than aiming for a large-scale study—which was not my intention here (Merriam, 1998).

The process of data collection began with a total of 13 individual semi-structured interviews of leaders. District leaders consisted of superintendents, assistant superintendents of educational services, and Directors of Schools. Thereafter, three principals (elementary, middle, and high school) were interviewed at each district for an average of 60–120 min. All interviews were tape recorded and fully transcribed. The interviews with district leaders focused on the strategic plan for PD vis-à-vis DDDM, the districts' methods of planning, executing, monitoring, and evaluating the process. The interviews of school leaders focused on: soliciting their understanding of the district's strategic plan for PD in DDDM, the districts' process of planning, executing, and evaluating, the district-school relationship, school leaders' use of PD content, and, the outcomes. Member checks were conducted with participants to ascertain internal validity (Creswell, 2007).

The other two types of data collection were observations of PD and artifacts gathered from the districts, schools, and classrooms. The purpose of PD observations was to capture content and conversations about DDDM practices, communication strategies, and how relationships were cultivated (between district leaders, school leaders, and teachers). Observations were limited to listening and taking field notes. I was a non-participant observer and did not engage in discussions. Field notes on the observations allowed for triangulation of data with interviews and artifacts. Lastly, district and school artifacts included, but were not limited to, data binders of district and school reports, formal and informal documents such as agendas, policies, procedures, and protocols that relate to the districts' PD and teacher and student data charts and work samples. When possible, I photocopied documents for the purpose of cataloging, coding, and content analysis.

Data analysis via a priori coding procedures was grounded in Knapp et al.'s data-informed leadership framework (2006) and key phrases from the research questions. A list of 14 codes was formulated. I used line-by-line coding to identify emergent themes. Interviews were read sequentially from district to school leaders, one district at a time, comparing and contrasting responses between district and school leaders. Codes were streamlined as there was overlap in the content that related to each code. Narrowed-down codes served as the most salient themes identified in interviews, observational notes, and documents. All documents were read a second time in the same order and this time were color coded based on the codes which then served as themes. Lastly, analysis of data was conducted across the two districts.

Adhering to ethical practice, I obtained informed consent from districts and all participants prior to conducting any interviews, observations, and document retrieval to ensure that there was voluntary participation in the research study. During the entirety of data collection, analysis, and the reporting process, I complied with Internal Review Board procedures and that of the districts and schools being researched. Data gathered during research, such as taped interviews, interview transcripts, field notes, and documents, were kept confidential in order to guard the names of all participants from other participants and to honor anonymity. Findings presented in this paper embody my interpretation and the perspectives of the participants.

## 7. Findings

To demonstrate how BUSD and DUSD nurture coherent systemic reform, I present three themes which detail the range of competencies held by the districts, schools, teachers, and students. I argue that the confluence of a focus on DDDM, comprehensive and systemic professional learning and DL resulted in sustained achievement gains. The forthcoming will showcase the “what,” “why,” and “how” of the districts' reform efforts. It is hoped that these findings will further the research and provide insight with respect to sustainable efforts in district-wide improvement. Table 3 summarizes the findings, followed by details which explain the strategies for district reform.

## 8. Unwavering focus on DDDM

BUSD and DUSD focused intensely on DDDM as evidenced by document analysis, interviews, and observations. DDDM was the focus of PD at the district and school levels and this was reinforced through policies and strategic plans. The driver of this mandate was the need to provide equitable opportunities for student success district wide. To leverage their efforts, both districts sought community support.

**Table 3. Summary of district reform efforts by BUSD and DUSD in California**

District reform		
Reform strategies	Buck Unified School District	D’Angelo Unified School District
<i>Focus on data-driven decision-making (DDDM)</i>	Garner support: Superintendent utilizes multimedia to communicate with the greater community	Garner support: District office and schools produce “Good News” and “Urgency” statements
	Superintendent and cabinet utilize <i>presence</i> and attend all PD sessions and build relationships with school leaders and teachers	Superintendent and cabinet utilize <i>presence</i> and attend all PD sessions and build relationships with school leaders and teachers
	DDDM is captured in policies, strategic and improvement plans	DDDM is captured in policies, strategic and improvement plans
<i>Professional development in DDDM</i>	Structured and unstructured approaches to professional learning	Structured and unstructured approaches to professional learning
	Primary focus was capacity building of school leaders in data use, analysis, and facilitation to guide teachers in the process of DDDM practices	Primary focus was capacity building of school leaders in data use, analysis, and facilitation to guide teachers in the process of DDDM practices
	New math adoption leveraged to provide formal year-long PD in DDDM. Leaders and teachers attended separate monthly trainings	Formal year-long PD in DDDM utilizing Focus on Results framework. Most schools chose literacy focus. Principals attended two monthly meetings, one with their leadership team and the other with principals only
	Autonomy for school-level PD; however, all schools received training in Professional Learning Communities to provide structured teacher meetings	Autonomy for school level PD; however, all schools were required to use the FOR framework to provide structured teacher meetings
	Progress monitoring via district meetings, coaching conversations, and school walk-throughs by district leaders	Progress monitoring via district meetings, coaching conversations, and formal school walk-throughs by teams of district leaders, principals, and teachers
<i>System-wide distributive leadership</i>	“Teams” of teachers empowered to lead the improvement process at their schools through ongoing collaboration, learning, and engagement in DDDM	“Teams” of teachers empowered to lead the improvement process at their schools through ongoing collaboration, learning, and engagement in DDDM
	Principals, teachers, and students engaged in unconventional leadership roles—leading to cycles of inquiry and restructured communication	Principals, teachers, and students engaged in unconventional leadership roles—leading to cycles of inquiry and restructured communication

### **8.1. Garnering community support**

To highlight and gather momentum for Buck’s initiatives, the superintendent was frequently featured on “The Unite Show” (likened to the Tonight Show) an appealing and effective communication tool. In one monthly show, the superintendent spoke of current initiatives: response to intervention (RTI) and the state of English language learners (a district where 39 different languages are spoken). He made connections between learning gaps, the initiatives, and their direct impact on student achievement. In addition to monthly videos to the larger community, the superintendent and his cabinet were present at the monthly principal PD sessions to reinforce the importance of DDDM and to gauge learning and future needs.

While observing district PD, Buck’s superintendent and top district leaders utilized presence to build relationships with school leaders. They remained for entire sessions, engaged in the learning process but also connected with principals through light-hearted conversations. The superintendent, in his address to the principals, made clear that there is direct correlation between PD in DDDM and the California Professional Standards for Educational Leaders. He indicated that expectations and evaluations will be aligned with administrative standards just as students and teachers undergo standards-based evaluations.

Similarly, D’Angelo’s superintendent engaged in community outreach to further the district’s reform initiative. The superintendent asked all schools to produce a “Good News Statement” and an “Urgency Statement” with the idea that all schools were expected to work toward improving student achievement. The district also has a good news statement—GUSD is achieving at an 800 academic

performance index (API)<sup>1</sup> level and has a number of schools which are distinguished and blue ribbon. The district's urgency statement is that it still has 60% Latino, 40% White, and 20% Asian population not achieving at grade level. An assistant superintendent stated, "We recognize this, we talk about it at board meetings, it's out in the open, as you walk through the hallways you will see it all." He noted that the superintendent makes sure that the message is prominent and that everything in the district centers on student success.

The DUSD superintendent and top district leaders engaged at principal and teacher PD sessions. The superintendent shared:

Unless you as the superintendent are visible to support the process ... there will be principals who will not take it seriously. I will tell you I am at 98% of those trainings ... to openly talk about the great work they're doing, give a pep talk, encourage them because you have to walk the talk ... if it's that important, that the focus is truly student achievement, then why can't the damn superintendent be down here to be a part of the process?

To keep visible the message and the focus on DDDM, district leaders engaged their larger communities and educators within their districts. This was evident through larger community efforts and their *presence* in monthly PD meetings with principals and teachers. Although the phrase "what gets monitored, gets done" seems logical, often than not superintendents and their cabinet hand off the responsibility of PD to others which often times sends the message that this is simply another program. To give the initiative backbone, document analysis revealed policies, strategic and improvement plans focused on ongoing PD to ensure DDDM occurred at the district and school levels. Details of the PD at the district level will be outlined in the next section of the findings.

## **9. Professional development in data-driven decision-making**

To ensure system-wide PD in DDDM, a symbiotic relationship existed between the district and their schools. At Buck and D'Angelo, PD was more than just teaching the use of data tools to school leaders and teachers. Professional learning included: formal district and school trainings; use of outside consultants; workshops outside of the district; peer mentoring; and coaching. This multi-pronged approach to professional learning had far-reaching consequences to ensure comprehensive and systemic learning in DDDM.

### **9.1. Capacity building of school leaders**

Both districts were acutely aware of the need and urgency for school leaders to be proficient in data use and analysis in order to guide teachers in the process of DDDM practices. District leaders planned and offered formal year-long PD at the district office. They monitored the progress of learning through mentoring sessions, coaching conversations with principals, and ongoing site visits to all schools.

Although Buck touted its innovative spirit, they desired to implement a more systemic approach to DDDM with respect to understanding the connection between curriculum, instruction, and assessment. A decision was made to streamline the learning process by leveraging the new math adoption. The assistant superintendent reported:

Everyone [district leaders, school leaders and teachers] attended the new math curriculum training. A good part of that training is assessment and the data that comes with it. So everybody is looking at benchmark assessments, feeding those benchmark assessments into DataDirector<sup>2</sup> so they can be used to make judgments about how and what kids are learning.

The training emphasized lesson design, pacing, and planning, differentiated instruction and assessment embedded in curriculum. District leaders described Buck's approach as being one of empowering school leaders. The superintendent shared:

Just throwing the data out [there] without training principals on how to deliver would be a recipe for disaster. You have to know your audience, you have to walk in their shoes, and you have to do it in the most effective way without shutting them down. An effective way, we discovered, is to not give them data, but give them the ability to go after the data. They will bring themselves to that gut wrenching moment, “How did I do?” So we’re not training the principals on the mechanics, but rather how to do it as a presentation to their staff.

It was admitted, during interviews with district and school leaders, that district PD was not always at its peak. The superintendent indicated that now the format is focused on lateral capacity building with colleagues presenting to colleagues. Principals were chosen based on their knowledge and skills of how to guide teachers through data retrieval, analysis, and instructional planning.

An assistant superintendent shared:

We have different levels of ability ... progress varies in terms of how many schools’ entire staff have been trained and the number of principals trained and their various levels. Our roll out last year consisted of a couple of principals who are very tech and data savvy and use data for instructional purposes ... these principals share [with their colleagues] how to use the data from a principal’s perspective.

In addition to formal district training, the Director of Schools at BUSD has the responsibility of supervising and evaluating 19 elementary school principals, facilitating the Coaching Our Management: Peer Assistant Support System (COMPASS) program<sup>3</sup> and designing the monthly leadership academy. These formal meetings allow district leaders to glean the strengths and challenges of school leaders. She gives an example of a recent problem that required one on one coaching and ongoing support:

One of our schools dropped dramatically in its API this year and this became a challenge for the principal who has a high level of accountability ... I mean it caused a lot of anxiety. Both I and the director of special programs talked to the principal, we first looked at ... [data] individually through DataDirector to find trends to point out to the principal.

The Director of Schools indicated during the interview that many different reports were pulled in preparation to assist this principal in leading her staff to find the answers. The process they took the principal through was what they expected her to model to her staff, stating “... we spent a couple of hours pointing out things [in the data] with some possible suggestions of what might happen, and questions she could ask the staff as they looked at data together.” She indicated that formal monthly leadership meetings allow her and other district leaders to plan for additional informal-type training.

BUSD’s superintendent and cabinet have placed a deliberate focus on the use of data in their messages, conversations, and how they enquire about the state of a school. During school walk-throughs, district leaders identified the schools which utilized research-based practices. The principals of these schools were asked to provide PD to their peers at district meetings, building a culture which values leaders, and learning system wide.

District leaders at DUSD also used a multi-pronged approach to PD, albeit in a slightly different manner. D’Angelo’s principals bring a core group of teachers to the district PD to engage in the learning of DDDM for a period of one year. The district adopted Focus on Results (FOR, 2010), where consultants led principals and their leadership team [a team of teachers] in monthly meetings to be coached in the process of bringing about school improvement. They are then expected to carry the message back to their schools.

The FOR framework was the training of choice for PD in DDDM. The vital components consisted of: the formation of instructional teams [principal and teachers] at every school in the district; utilization of student data to form an instructional focus [mostly literacy]; research-based instructional practices; ongoing student assessment; setting and monitoring of goals; and, instructional interventions. During the interview, DUSD’s superintendent stated that **SEAM**, a set of questions based on instructional

reflection, should be at the forefront of determining needs: **S**: Is Instruction Standards-Based? **E**: Are students actively Engaged in the lesson? **A**: Are students Assessed regularly to inform and drive instruction? **M**: Are students reaching Mastery of standards? These reflective questions allowed for an ongoing cycle of inquiry, reframing of problems, and a determination for future professional learning. These reflective questions guided instructional team discussions at the district and school levels.

After principals and their teams go through monthly PD for one year, a “how to” training in facilitation includes how to walk teachers through choosing power standards and unpacking them, identifying academic vocabulary, and how to teach to mastery. Like BUSD, the district leaders at DUSD are concerned about principals guiding their teachers through the alignment of standards, instruction, and assessment—not simply teaching cover to cover from a textbook. The final FOR training of principals during the summer allows them to learn how to facilitate the learning at their respective schools. FOR consultants provided monthly PD through a cohort model for a period of 3 years, with year-1 cohort reserved for schools with the greatest need.

The assistant superintendent indicated that the support system for learning within the district is both structured and unstructured. Aside from the district PDs, district leaders are part of a triad (a district leader and two school leaders) where they meet and collaborate during district meetings. Principals were also placed in additional triads, where they serve as peer coaches to one another.

FOR monthly PD was extremely structured but the district provided schools autonomy to choose a content focus. Each school selected a content area for their DDDM efforts, with most selecting literacy, specifically reading comprehension or writing strategies. An elementary school principal articulates one of the tenets of FOR.

... the superintendent is challenging principals to spend 50% of their time in classrooms, so that we know what’s going on, so that our feedback is much more directed, so we can have courageous conversations with teachers about rigor and connection to the standards.

Both districts viewed the learning in DDDM as a systemic and comprehensive process where district and school leaders engaged in the learning and teaching of key principles in DDDM, such as utilizing the data system (DataDirector) to discern the greatest area of need; keeping a narrow content focus and unpacking standards for that content area, aligning those standards with instruction and assessment. Interviews revealed that aside from the district PD, school leaders and teachers collaboratively decided upon campus PD.

### **9.2. Empowering teachers**

Both Buck and D’Angelo recognized that a precursor to DDDM was to invest in the data infrastructure to provide access for principals and teachers. They also understood that this investment should be followed up with formalized structures and processes through ongoing collaboration and PD to develop teachers’ expertise in DDDM.

As a result, a BUSD principal describes the process of DDDM in her school through teachers’ use of multiple data sources. For instance, the basic reading inventory by Johns tracks progress in reading. These data follow a student from kindergarten to sixth grade and allows for a common language during grade level or SST (student success team) meetings. In the past, they relied on publisher or district summative tests. She reported current practice:

I was with 3rd grade yesterday [while analyzing assessment data] they were in the process of re-leveling their groups. So every teacher came in with their tests, all leveled out by number and type of questions [based on specific standards] correct ... deciding which kids were struggling [with specific standards] and needed to be bumped down, which kids were showing improvement and could go up a level. They made a shift right there during that 45 min ... mostly formative assessments at this point, thank goodness because it used to be autopsy ... let’s look back and see what happened.

This approach to DDDM places the power of instructional improvement in the hands of teachers. It also aligns with the district's RTI initiative where learning is assessed at 6-week increments. A middle school principal describes collaboration as an approach to teacher involvement in PD:

At the top of every agenda are the school plan goals and then the collaborating team's learning goal ... most of our staff is PLC trained by DuFour because we had it districtwide. They received that training and then last year I took a team of five to Marzano's training on instructional strategies.

This middle school principal stated the trainings took her staff deeper into the process:

They bring back the fire and passion for these things, then it spreads quickly where as if I'm the only one going and bringing it back then it's top down and that doesn't do us any good ... because I can't teach it all, I need five other people helping me out.

She also conducts informal assessments of instructional practices, and similar to principals presenting best practices at district PD, she asks teachers to present best practices to their colleagues during school PD. Documents and interviews revealed district-wide teacher attendance at various PD, i.e. *Effective Schooling Strategies* by Dennis Parker, *Professional Learning Communities* by DuFour, and training by Robert Marzano to cultivate and sustain effective instructional strategies in the classroom.

At GUSD, principals described the process on their campuses as "very structured and organized." Teachers participate in instructional walks with assistant superintendents and principals from two schools. A principal reported:

All our schools have defined their best practices ... and address one weakness through data collection ... the other schools are versed on what to look for in a pre-walk. Then we break up into teams and go through classrooms and look for evidence of best practices.

The DDDM process is tailor-made to each school and decided upon by the instructional leadership team (ILT) [of teachers] based on data. For example, one high school chose writing as their area of focus. They received staff development on writing and studied research by Douglas Reeves. Monthly collaboration furthered the improvement process where teachers plan lessons and analyze student writing samples, increasing teacher engagement in the decision-making process.

A principal notes that teachers at her school get a folder with all their data at the beginning of the year. They see the standard-based report cards which include all assessment results. They can identify their second language learners, their GATE students, how students scored on their benchmarks, and how they scored on their CSTs (state assessments). "They get the whole picture. We also have an intervention program and they'll figure out which students are going to intervention right up front." They also meet four times a year to look at summative grade-level data. Grade levels plan collaboratively, K through 6, and this is evident in the similarity in classroom instruction and environment. The principal notes that "... a lot of it comes from sharing best practices." The collaborative process of DDDM with teachers was vital but more challenging at the secondary level.

A middle school principal noted that access to state CST data, district benchmark tests, grade-level data, and classroom data allow teacher and student growth to be measured. She noted that equity for student success was a driving factor. Using the district's writing benchmark as an example, every grade-level assessment was normed, administered, and graded by each teacher at each grade level. She added that at her school, the plan and process for DDDM were school wide and by department.

I give them three years of data ... one year is not enough ... could have been a group of students, two teachers left in the middle of the year... I don't want to hear excuses. I want them to look at the patterns. As a department they will come up with a plan and then it is

their responsibility. Electives have a responsibility to help Math and English. They will look to see how they can incorporate math or writing into the PE curriculum. Nobody is going to take the praise for succeeding and no one's going to take the blame.

This middle school principal shared that FOR PD was structured and planning time was allotted in the afternoon between the principals and a core group of teachers. The team gets together using whatever data and training they have to sit down and plan their school's monthly staff development. The information learned is brought back and shared with the ILT, which consists of every department chair in addition to anyone who wants to be part of that meeting. Then the ILT disseminates the information to everyone else.

There was consistency in document analysis, interviews, and observations from Buck and D'Angelo regarding the evolutionary process that occurred in providing systemic and comprehensive PD in DDDM. Both districts invested in DataDirector as their choice of data infrastructure for leaders and teachers. District-wide training in DDDM for one year was offered to school leaders and teachers with ongoing assessment and follow-up by district leaders through school visits, coaching sessions, and peer mentoring. Both superintendents and their cabinet attended the majority of PD sessions throughout the year and were deeply invested in the process. Through these investments, both districts were able to develop cultures of inquiry in their respective institutions. BUSD realized that leadership needed to be distributed to teachers to widen the scope of learning and consequently offered training in professional learning communities. DUSD likewise created ILTs at each school which were trained by in-house FOR consultants. Both districts understood "teams" of teachers were necessary at each school to build structures and processes to sustain ongoing learning in DDDM with the aim of equitable opportunities for student academic success. The description of the structures and processes to sustain professional learning in DDDM will be described in this final section of the findings.

## **10. System-wide distributed leadership**

The effectiveness, indeed the indispensability of DDDM, is often a foreign concept for many teachers, let alone students, yet data-based decisions set the improvement process in motion. For the school leader, DL is a way to ensure that teachers are leading other teachers in the learning of DDDM practices so they are prevalent school wide. One of the most pressing concerns for Buck and D'Angelo was to determine and define a strategy that would lead to sustainable organizational reform so equitable opportunities are available for students across the district. Both districts set the pace and tone to enact district reform through the novel use of DL at each level of the system—district, school, and classroom through cycles of inquiry and structured communication.

### **10.1. Cycle of inquiry**

What I found through the interviews, observations, and interactions was the process of revisiting issues breaks down the hierarchical approach inherent to disseminating information from the top down, as the act of "revisiting" initiates discussion. Returning to issues based on need, establishes a cycle of inquiry that allows one to go beyond rote learning—simply reiterating what one has been told—but rather provides opportunities to reframe problems, reconsider and revise implementation strategies as necessary, assess, and consequently allow for communication and collaboration in the process.

At Buck, a core group of principals engaged with top district leaders in the planning and implementation of district PD. These principals were given a seat at the table during the district's executive committee meeting. This provided opportunities for collaboration between district and school leaders and was a rather unconventional district leadership role for school principals. Through this relationship, revisiting issues between district and school leaders established a cycle of inquiry that allowed for not simply learning, but opportunities to reframe problems, implement, assess, and allow for communication and collaboration in the process. Collaborative decision-making between district and school leaders and school leaders and teachers was a priority for BUSD. The power of DL was evident at the school level.

A Buck elementary school principal described bringing together a team of teachers:

Some of the actions we've taken are providing library and P.E. back to back, two subjects that can be monitored by a credentialed teacher with the kids going 45 min to the library and 45 min to P.E. The whole grade level goes at one time so the teachers are all released during that hour and 45 min for weekly grade level collaboration. Intervention is also done between the bells because we noticed for years students in need of intervention don't come after school. I really have a between the bells philosophy because I feel that's really the only thing I have control of.

The principal along with a core group of teachers developed structures and processes for weekly collaboration. This principal facilitated a team of teachers to engage in a non-traditional leadership role to decide how the school would sustain a cycle of inquiry through DDDM. During team meetings, a teacher takes her team through reviewing and analyzing student work and other assessment data. Decisions are made about individual students such as placement for intervention. Through teacher-led facilitation, decisions are made through a process which engenders a culture and cycle of inquiry.

Similarly at DUSD, unconventional-type district leadership decisions come to the fore through district and school leader collaboration. A collaborative spirit between district and school leaders resulted in the decision to abandon monthly principal nuts and bolts meetings and replace it with a second meeting that furthered the FOR training. Principals with a team of teachers come to the district office to engage in PD and then a second time alone with district leaders to deepen knowledge and skills in FOR training.

A high school principal at DUSD described how she adopted the district model to transform the culture of faculty team meetings into one of constant learning and inquiry.

Because of Data Director and Focus on Results, we entered last year and had a team of about four or five, we've expanded to eleven. Eleven gives you a much better chance of having those tentacles to draw in more teachers because I firmly believe that the most important conversations do not always happen in the staff development sessions. They happen in the faculty room, at the copy machine, and it's those exchanges that we now have eleven! This quite honestly was one of my biggest challenges ... to bring this team to the table in a way that was open-minded.

This high school principal shared that she began with the special resource teachers (SRTs), noting this was a strategic move. She noted that department chairs are elected but an SRT is not an official position with an official description. The SRTs were charged with beginning the process of unpacking standards and aligning them with instruction and assessments. With facilitation by SRTs during school-wide PD, all teachers were engaged in unpacking the standards, choosing academic vocabulary, aligning standards with instruction, and developing formative assessments to gauge the impact of instruction.

To that end, both districts formally engaged principals in district-level decisions regarding PD in DDDM and in turn principals engaged and empowered teachers to participate in school-wide decision-making to establish structures and processes for ongoing collaboration and professional learning. This resulted in a reform effort that was not fleeting or merely of the moment. The reform effort changed the structure of communication and ultimately involved students in the change process.

## **10.2. Restructured communication**

Structures and processes to sustain a culture of DDDM, mediated by DL praxis, resulted in restructured communication channels. Participants district wide were able to see the full extent of what they were engaged in, allowing for healthy collaboration and communication between district leaders and principals, principals and teachers and teachers and students, and various combinations thereof.

Interviews with a BUSD assistant superintendent, and later with an elementary principal, revealed that discussions focused on trends and patterns within current subgroups of students. With this in mind, they began to look at data trends by students and tried to put a face to the data. The assistant superintendent [African-American] recalls when she was principal of a high-performing Title 1 school:

Analyzing subgroup data with staff ... the gap with the African American subgroup [elicited] whispering [by a teacher]. I told the staff, "let's say it, because if we are not comfortable saying it, then we'll pretend it's not there". I told lots of personal stories. I really wanted teachers to see [African American] students as if they were their own and I believe this is what began to change the culture. We began the language of adopting kids, having data chats with them, pulling kids one by one ... having them set goals. This was the result of district training ... training with Dennis Parker.

The principal who succeeded this assistant superintendent reported that she continued the practice of data chats with students, calling in every student one by one and talking to them about the evidence of their performance. She emphasized to students that the only score they need to beat is their own. Along with data chats are milestones where success was celebrated.

A BUSD middle school principal indicated similar patterns of communication that involved students in data discussions:

Because we've made data non-threatening, the kids are starting to log things and talk about their own scores ... students charting their own progress and teachers are charting student progress and talking about it freely. I am finding that students aren't afraid to talk about their data. "Well how did you do on that test?" "Why did you answer that question that way?" So I think the culture of trust in using data is a big thing because data are not about us, it's about kids in the classroom and if we train them to use it, then we know they have ownership ... I know that the big push is to have teachers use data. Data is of no relevance until students can understand how it impacts them too and so I think we forget that in the equation and until we put it back [in their hands], data is not going to be as relevant for schools.

At DUSD, channels of communication were also opened up in ways that empowered students to take control of their learning. A D'Angelo elementary school principal notes that culture of data use was observable through the data posted in classrooms, with every single teacher having their graphs posted on how students are doing. Students will verbalize their goals based on a pie graph. The principal noted that student voice is prevalent:

"We're going for the green because green is proficient." "Blue is advanced proficient." Every single student is on the office wall ... demonstrating level of proficiency in their school wide goal of writing ...

Building a culture of data also means communicating with parents and getting them on board as well.

We talked to parents about it. Everybody has a script on back to school night. The message is exactly the same [since] teachers have a common language ...

A restructuring of communication was evident through the engagement of parents and students. One principal at a Title 1 middle school describes advocacy between students. A program was initiated for students with three or more Fs. Student tutors are placed in twenty-to-one algebra and intro classes. With the school unable to hire adult tutors, students who have a gap in their class schedule or enroll in study hall tutor other students. A community service medallion is given to students who give 100 h of service. Last year's graduating class gave 55,000 h of service to the community and a lot of it was service to fellow students. At the end of last year, the total number of Fs had diminished drastically.

Structures and processes of DL involved unconventional leadership roles for principals at the district level and for teachers at the school level. Through effective communication channels and cycles of inquiry, productive teams were noted at the district and school levels. The DL practices in play at both districts resulted in a restructured system of communication that deepened the level of collaboration [toward a cycle of inquiry] between district and school leaders, school leaders and teachers, and teachers and students—always with the end goal of advancing student achievement.

## 11. Discussion

In an effort to establish the context for this research study, I indicated that educational reforms of all sorts have been pursued with almost unparalleled zeal, particularly since the passage of NCLB (2001). Yet, such well-intentioned efforts often do not yield the desired results because of the lack of systemic coherence with which such reforms are carried out. Sometimes this incoherence is caused by gaps in leadership, or perhaps because the participants could not see the connective threads that bind together the various elements of the larger effort. PD for school leaders and teachers can mitigate learning gaps in how to actualize the continuous improvement process through DDDM; however, if professional learning is devoid of policies and sustainable structures and processes, then it becomes limited at best or written off by educators at worse. This study found that these two districts used a three-pronged approach to bring about coherent district reform.

Scholars have argued that district and school improvement can be undergirded by an evidence-based approach through DDDM (Datnow et al., 2007; Earl & Katz, 2006; Honig et al., 2014). Others contend that comprehensive and systemic professional learning (Butler, 1992; Darling-Hammond & Orphanos, 2006; Dunn et al., 2013; Heritage & Yeagley, 2005) is vital to the improvement process. DL has been described as the lynchpin to actualizing coherent district reform (Dieronitou, 2014; Harris, 2013; Harris & Spillane, 2008; Spillane et al., 2001). With the aforementioned scholarship in mind, the Elements of data-informed leadership framework (Knapp et al., 2006) offered a way to understand the process of coherent reform efforts.

In contrast with earlier single-focused analysis, I find the combination of the three most important. The DIL framework insinuates that data affirm that educational leaders should consider governmental mandates but must also bring core values, vision, and a contemplative and deliberate approach into the process. I used the DIL framework to explore “what,” “why,” and “how” systemic reform manifested in BUSD and DUSD. The findings confirm the previous scholarship in district reform and add to it by suggesting that it is the convergence of a focus on DDDM, systemic and comprehensive professional learning, and DL that led to *coherent district reform*.

Data-informed leadership (Knapp et al., 2006) as an avenue for reform insinuates that data affirm that an educational leader brings into the process deliberate practices of leadership. The implication is that data do not necessarily drive decisions, but that the use of data acknowledges the complexities and ambiguities that play into data use in educational systems. I found that both districts grounded their core values and visions on the idea that students should have equitable opportunities for success. Consequently, the districts’ approach began with policies and strategic plans inclusive of system-wide professional learning with a *focus on DDDM*. As a profound practice, and to overcome pushback from various stakeholders, both districts engaged all stakeholders.

*Systemic and comprehensive professional learning* in DDDM on the district level was for a period of one year at BUSD and one year for each of the three cohorts at DUSD (with cohort one consisting of underserved schools). PD was planned with the idea of impacting the culture of the system in a way that permeated the schools and classrooms. The culture of DDDM was reinforced by superintendents and other district leaders who attended district PD and engaged school leaders and teachers during these trainings. District leaders also conducted school visits and coached school leaders on a regular basis. Each district subscribed to specific theories of action.

The specific theories of action with respect to PD was not limited to learning the data management system (DataDirector) but extended to data literacy. PD at both districts included unpacking standards and learning the process of total alignment of curriculum, instruction, assessment, and the creation of formative assessments. BUSD wanted to streamline this process and leveraged the new math adoption as a segway for PD in DDDM. D'Angelo adopted the FOR framework; however, they allowed each school to choose their content area based on need with most choosing literacy.

At BUSD and DUSDs, DDDM occurred at all levels of the system, and the process was understood by: district leaders, school leaders, teacher leaders, teachers, and students. The PD efforts at each district aimed at producing a DDDM culture grounded in honest and non-threatening inquiry and problem-solving, creating partnerships and interdependence between the district and school leaders, school leaders and teachers, and between teachers and students. This is contrary to the usual district model where training happens through workshops or during a summer institute. Full participation in PD and communicating the larger schema of the efforts engaged in by these districts was critical to building capacity. DL allowed for communication channels to open, innovated as necessary when reform initiatives are undertaken.

BUSD and DUSD were focused on the fact that the critical reason for engaging in PD was to learn how to make more productive and effective use of available data and ultimately to make DDDM habitual. PD for school leaders at both districts utilized innovative approaches; consequently, a critical component of that innovation was the use of DL praxis. Observation of the district's PD confirmed that through the use of DL, strong and empowering relationships were developed between district and school leaders and between school leaders and teachers. This process of DL is then taken and reinforced by school leaders and teachers during team meetings. The purpose of the principal, along with an entourage of teachers across grade levels and departments, allowed for redefining the singular concept of "leader" and consequently singular leadership practices. The notion of a lone school leader was challenged not as a matter of theory but praxis, allowing for intentional action between educators with varied knowledge and skills. DL practices honor unconventional leadership roles such as principal leadership at the district level, teacher leadership at the school level, and student leadership at the classroom level which increases communication and accountability district-wide and provides focus for the work of teaching and learning.

My research for this study indicated that the actions of the district and school leaders were critical to initiate and execute DDDM practices across the district. During district and school visits, district leaders clearly articulated the importance of coaching. Consequently, DL is once again made manifest when district leaders model effective coaching methods for school leaders so they can replicate it with their team of teachers. A team of teachers take on a leadership role with their grade level or department colleagues. At Buck, teachers organized as professional learning communities and at D'Angelo teachers organized as instructional teams with teachers leading these teams. It is critical to note that district leaders and teacher leaders, respectively, are not telling school leaders or teachers what the data means but rather engaging in a discussion as to the multiple and communal ways of looking at that data. District leaders, school leaders as well as other onsite personnel are able to monitor, evaluate, and give feedback throughout the various phases of data analysis.

All of the principals interviewed for this study admit that the effectiveness of such a cycle of inquiry can be ultimately assessed by the productive effect such an analysis and inquiry has on students. They point out, that as the inquiry process presents data in a non-threatening way, even students are engaged in logging their own individual data and discuss their scores in terms of what possible courses of action are implied by the numbers, not just in terms of "success" or "failure"; in short, students also become part of the data analysis process. The principals described a culture of trust that is "spreading" where everybody (teachers and students alike) is logging data, charting progress, and talking about it freely. Conversations that I heard during team meetings, relative to colleagues and students, reveal that these stakeholders are not afraid to talk about their own

evaluative data. Students can easily talk with each other about their challenge areas (based on available data) and engage in a process of improvement that is self-directed not just teacher driven. Similarly, at the teacher level, school leaders and teachers indicated that the culture of trust which pervades the use of data significantly removed the vulnerability that teachers can feel in discussing their own challenges. They all agree that data presented, analyzed, and discussed are ultimately about the welfare of students. Arguably, if this process of inquiry and analysis has been done productively, then the data-driven decisions that result should also allow all stakeholders to take ownership or lead their own development and progress by establishing and meeting their future goals.

This three-pronged approach toward *coherent district reform*, employed by these two districts over a period of four to seven years, yielded consistent and gradual increase in student achievement from year to year. Through an iterative process, school leaders and teachers who had less than optimal performance in DDDM were able to advance their practices. During the year the research was finalized, both districts demonstrated growth in API for all their subgroups.

On a purely empirical level, longitudinal data demonstrate significant gains in student achievement as revealed by the API: BUSD increased from an API of 784 (2006–2007) to 822 (2009–2010) and DUSD increased from an API of 794 (2004–2005) to an API of 842 (2009–2010). As an educator, administrator, and an academic scholar, I would be the first to say that despite our best efforts one can never empirically prove the exact causes as to why some efforts succeed and others do not. But that should not prevent us from making informed conclusions—such has been my intention in this article. The material aims at both these districts were to initiate and execute appropriate and effective PD that would result in the ongoing use of DDDM. Furthermore, perhaps the more abstract but equally important goal at each district was to make relevant available data an ally in the decision-making process rather than something to be feared or used to compare individuals and their achievements in critical and punitive ways.

In ensuring that the material and abstract objectives were reached, the districts engaged in three specific yet *integrated* strategies: First, they successfully engaged all schools in DDDM, then designed PD which engendered ongoing learning and lastly used DL wherein leaders, teachers, and students are equally involved in the outcome. This is not a false equality where we are saying that a district or school leader is equivalent to a teacher or a student is exactly like the administrator, but rather all the layers of stakeholders have equal opportunity to ensure success for the overall project. Enabled by DL practices, the districts initiated a cycle of inquiry and restructured communication channels, indeed rethinking the ways and reasons for communicating. The theoretical and material model of action that I have described in this article demonstrates how such a leadership approach *integrally engenders coherent reform strategies*.

## 12. Implications

General principles can be extracted from this study, as its intent was to offer evidence of productive and effective PD in DDDM and to provide those involved with educational reform with an example of how to implement an evidence-based culture in their schools. Each tier—district, school, and classrooms—should understand the coherent structure of meaningful reform. At these two districts, the mastery of the dynamics between a focus on DDDM, ongoing professional learning, and DL was vital to the effectiveness of the PD efforts engaged in as well as in attaining their ultimate goal: equitable, improved, and sustained student achievement.

Research is needed to intensify understanding of how the district office evaluates and coaches school leaders' mastery of strategies to actualize district-wide DDDM. Other important research would include exploring district processes to provide school models of professional learning structures that operate within the school day.

On a personal level, I would have to say that having engaged in this research, the epitome of a school that had developed and sustained an organizational culture in DDDM, was when I walked into classrooms and observed evidence of students who owned their data, set their goals, and were engaged in the effort to meet those goals, thus arguably their future.

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#### Notes

1. A district or school with an API above 800 is recognized as proficient by the State of California.
2. DataDirector is an online data management system which serves as a decision-making support and tool.
3. COMPASS is a program for first- and second-year principals and other administrators who may need it. PASS, Peer Assistance Review, was developed jointly with the union. Principals in COMPASS are assigned to retired principals who are COMPASS coaches. Aside from monthly meetings, coaches will go a couple of times each month for one on one coaching.

#### Cover image

Source: Author.

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