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School Leaders, Student Achievement, and Innovations: Lessons from Three Exemplars

Abstract:

The purpose of this research was to identify exemplary, award winning secondary school leaders to discover ways in which they have transformed their schools for 21st century education and student achievement. This paper discusses three diverse case studies and identified ways that school's leader and leadership team has transformed its context into an exemplary, award-winning school. The data revealed multiple factors that these cases shared in school transformation but also articulated the ways each of these leaders approached his/her school's individual culture, circumstances, and issues. This study offers insight into the challenges and skills current school leaders must face to leverage technology to improve student learning and school improvement.

Introduction

The purpose of this research was to identify exemplary, award winning secondary school leaders to discover ways in which they have transformed their schools for 21st century education and student achievement. Given that technology is a critical component of a 21st century education, this research sought to learn from these leaders about the role that technology and myriad other factors play in school improvement and transformation. Our goal was to look deeply at the ways school leaders in different circumstances with unique challenges are employing technology in curricular, administrative, and analytical ways to meet the needs of the current learners, educators, and communities.

This paper will discuss three of the eight case studies conducted that represent highly diverse settings to identify ways that each school's leader and leadership team transformed it into an exemplary, award-winning school. The data revealed multiple factors that these cases shared in school transformation but also uncovered the ways these leaders approached his/her school's individual culture, circumstances, and issues. In each case the following themes are highlighted: visioning process, curriculum definition and development, student achievement goals/steps,

funding challenges/plans, professional development, community building activities, developing internal leadership and strengths, and uses of data.

Theoretical Framework

This research looked through the lens of distributed leadership based on our goal of examining school leaders, the context of the schools, and myriad groups and individuals within each school in an effort to begin to understand ways our identified exemplary leaders organized, implemented, and promoted student achievement, school success, technology implementation, and teacher involvement. We determined that the lens of distributed leadership provided an appropriate and logical lens through which to view our study. While this research was focused on leaders, it was situated in a context and knowledge base that comes from leadership studies, cognition, social interaction, and student achievement.

Spillane, Halverson, and Diamond (2001) have suggested that to understand leadership, it is important to look beyond what one person can do, or knows how to do, but look instead at what each person brings to the task, build on strengths, and collaboratively tackle the issue. They suggest, “Consequently, to understand the knowledge needed for leadership practice in these situations, one has to move beyond an analysis of individual knowledge and consider what these leaders know and do together” (p. 25). Their central premise is that school leadership is “understood as a distributed practice, stretched over the school's social and situational contexts” (p. 23).

While Spillane et al., (2001) provided the notion of this distributed leadership style, others have contributed to the understanding and complexity of the idea. Gronn (2002) suggests that leadership is a dynamic concept, and Mayorwetz (2008) agreed that leadership is best when distributed or “stretched over” multiple people and that examining and understanding the tools

they use would be helpful to understand the practice of leadership in schools. Her research suggests, “As distributed leadership initiatives in schools and empirical research continue to flourish, the field will benefit from scholarship that clearly articulates what is meant by *distributed leadership* in studies that are both responsive to central problems of practice and anchored in relevant theory” (p. 433).

Essentially distributed leadership assumes “a set of direction-setting and influence practices potentially enacted by people at all levels rather than a set of personal characteristics and attributes located in people at the top” (Leithwood et al. 2006, p. 20). In the context of school reform, researchers argue that the purpose of educational leadership is to improve student learning and to foster equity in educational outcomes (Firestone & Riehl 2005). Hallinger and Heck (1998) note that most accounts of school leadership pay little attention to the practice of leadership; rather they concentrate upon the people, structures, routines and systems. Murphy, Smylieb, Mayrowestz, and Louis (2009) suggest that administrators distribute leadership into areas by building strong relationships with teachers, rethinking conceptions of power, and fashioning organizational structures. They also caution that for some leaders this new model may not come easily, and stated, “For many principals, especially for those in the position for some length of time, championing and supporting distributed leadership necessitates a transformation in their understanding of leadership and in the ways they enact their leadership roles” (p. 183).

Methods

Our goal in this research was to explore multiple aspects of leadership in our exemplary schools; however, we do not believe it is enough to study these things without also understanding the goals of the leadership. We agree with Spillane et al., (2001) that “In order to gain insight on

leadership practice, we need to understand a task as it unfolds from the perspective and through the "theories in use" of the practitioner. And we need to understand the knowledge, expertise, and skills that the leaders bring to the execution of the task" (p. 25). Given the goals of trying to understand the processes, experiences, and perspectives from the inside of each school, detailed, descriptive case studies (Merriam, 1997; Yin, 2008) were the appropriate way to study the complexity of these schools. According to Bartell (1990), cases represent "rich, descriptive data viewed from an insider's perspective and lending a degree of understanding which cannot be achieved in any other way" (p. 82).

We selected the cases through purposeful sampling (Patton, 1990) by first indentifying a pool of potential schools based on their having received state or national awards as exemplary technology-using schools (e.g., from the International Society for Technology in Education-ISTE), because they have received more than one technology grant (e.g., IMPACT grants in NC, PT3 grants from the federal government), or through a snowball system of nominations based on the school or leader's reputation at the state or national level. Ultimately eight schools were identified representing all parts of the country, urban and rural settings, and from large and small school districts. University Institutional Review Board permission was obtained which included a letter of support from each district superintendent. One criterion that was not compromised was the need for as diverse settings as possible; therefore, selection of schools for case studies was also based on criteria that included geographic region, school level (middle or high school), and accessibility, including their willingness to allow us to do interviews and observations, and also to collect documents. The goal of this selection process was to identify exemplar cases, or what Yin calls *intrinsic* cases, so we could learned what, how, and why each school leader

created the educational changes, student achievement, and brought about uses technology for school improvement.

Of the eight cases, five were traditional public schools, one was a public charter school, and two were magnet schools. The school sizes ranged from 400 students to more than 2000. The percentages of free and reduced lunch ranged from 33% to as high as 90%. The schools were located in the following states: California, Colorado, Maryland, Michigan, Minnesota, North Carolina Virginia, and Washington. The three cases selected for this paper vary widely. The first is a Maryland high school in an employment-challenged location that experienced significant turn-around by becoming a math/science/technology magnet school under new leadership and with an infusion of district and community support. The second is a junior high in Washington undergoing multiple changes at the same time, including initiation of a 7th grade one-to-one laptop program, reconfiguring itself into a middle school, and overseeing the construction of a new school building. The third is an innovative small district in which data-driven decisions, student achievement, and a one-to-one laptop program have shown substantial changes over the past four years.

Data sources included multiple formal and informal interviews using research protocols of key informants (principal and other administrators, teachers, support staff, and occasionally parents in leadership roles) during a three-five day visit at each school, plus collection of documents (e.g., school improvement plans, agendas and minutes of meetings, internal and external publicity documents, student achievement data, school leader blogs, etc.). Each individual gave his/her consent for the interviews or observations prior to collection of data. Researchers also used protocols to observe in as many classrooms as possible during the on site visit. Focus groups were used to supplement interviews whenever practical. In all, over 150

interviews or focus group participants were recorded, more than 300 hours of observation were logged, and hundreds of documents were collected. Each school district granted formal approval, and Institutional Review Board approval was received from the researcher's institution. Consent forms were collected from all participants.

Data analysis focused on transcriptions of interviews and a detailed content analysis of observations and documents to identify the practices used by these schools that appear from both the insider's (emic) perspective and the outsider's (etic) perspective to have contributed to improving their schools and allowing them to be considered exemplary, award winning schools. We used the constant comparative analysis method (Lincoln & Guba, 1985) to analyze the data both within case and the across the cases (Miles & Huberman, 1994). Additionally, the researchers established a system of peer-debrief each day after data collection to assure fidelity of coding and identify emergent themes. Descriptive case studies were written and shared with key informants at each school to verify that our analysis and interpretation were valid, through member checking (Merriam, 1997; Patton, 1990).

Results

Ultimately, the data led to a deep understanding of the ways these three leaders have developed collaborative problem solving in a reality of limited resources, extraordinary oversight by communities, and ever increasing challenges to student success. Each leader has taken the notion of '21st century learning' and adapted its meaning to suit his/her context and needs. Two of these schools have focused on the use of the technology to drill deep into student achievement data. Two have promoted reconfiguration of their entire curriculum to include courses such as robotics, digital media, and virtual learning environments. One leader established a system so that resources have been distributed to the most at-risk schools and students and allowed a

system in which every educator had to reapply for his/her position to assure all were on board with the new implementations.

The ways these leaders have brought their schools, teachers, and communities along have also proven informative. Most talked about the ‘intentionality’ of their steps toward turning around their schools. As one example, we can look to the ways leaders have chosen to approach one-to-one technology implementation. Some schools have chosen to provide a common laptop for each student. They select a particular model of laptop, purchase them for each student, and identify creative ways to fund these. While this sounds relatively easy, the challenges are many; in particular, sustaining funding and maintenance have been difficult. Some schools have chosen to self-insure the computers and charge a small amount to each family (with support for those who cannot afford the fees). Some of these schools have on-site repair staff; one school developed a student elective that teaches repair skills so repairs are done by these skilled youth. Other schools determined that they cannot afford to provide and sustain giving laptops; these schools have moved to an open access and Bring Your Own Device (BYOD) model. Following the thinking of these leaders as they made these decisions along with teams of faculty and staff I their schools/districts offers insight into creative and innovative problem solving, purposeful distribution of leadership, and development of teacher leaders.

Significance

School leaders have responsibility for creating an education culture and environment that improves student outcomes and supports opportunities for all. These eight leaders used a wide variety of methods to accomplish their tasks but all were able to provide insight into their methods of moving their schools toward these common goals through the use of distributed leadership. Since the cases were selected as exemplars, we were able to identify ways in which

the lessons learned might be useful for others to adapt for readers' individual settings and context. This research adds to the literature base on distributed leadership and 21st century schools to support future leaders in their own efforts, provides information on a skill set that school leaders need to become aware of, and addresses multiple ways to view each issue in preparing students for their future.

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