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The Role of Leadership in School Innovation: A Case Study

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THE ROLE OF LEADERSHIP IN SCHOOL INNOVATION: A CASE STUDY

A Dissertation
Presented to
The Faculty of the Educational Leadership Doctoral Program
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In Partial Fulfillment
Of the Requirements for the Degree
Doctor of Education

By
Savannah Adkins Denning

December 2018
THE ROLE OF LEADERSHIP IN SCHOOL INNOVATION: A CASE STUDY

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This dissertation is dedicated to my parents,
Jim and Connie Adkins
ACKNOWLEDGMENTS

I am so greatly appreciative of the support I received throughout my journey to complete this project and throughout the course of my doctoral program. I am incredibly blessed to have such a supportive and encouraging network of family, friends, and colleagues. Without question, I could not have completed this milestone in my story without the love and support of each of them.

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Expansive research on leadership, particularly school leadership, has suggested leaders have an indirect impact on student outcomes, as leaders build a school’s academic capacity, which elevates teaching and learning (Hallinger, 2010). Though there is significant empirical research regarding school leadership, there is a lack of research investigating the intersection of leadership and innovation. In terms of innovation, “personalized learning,” has become an emerging topic among education researchers, as scholars seek to understand the potential impact personalized learning strategies have on student outcomes.

The purpose of this study was to explore how leadership interacts with innovation. This study specifically explored the roles of the superintendent, the principal, and informal leaders during a district-wide, personalized learning initiative. This dissertation draws from the conceptual framework of Hallinger’s (2010) “leadership for learning,” to better understand the role of leadership during this innovative initiative.

Three research questions framed this study: (a) What is the role of the superintendent in the implementation of a district-wide, personalized-learning initiative? (b) What is the role of principals in the implementation of a district-wide, personalized-learning initiative? and (c) What is the role of informal leaders in the implementation of a district-wide, personalized-learning initiative?
comparative analysis was utilized to cluster data, revealing themes for each type of leader.

Findings revealed the superintendent was the catalyst for change and was the driving force of what the innovation should look like. Additionally, the superintendent fostered a culture of innovation. Secondly, findings revealed the principal was the chief communicator among stakeholders and promoted the initiative by encouraging and modeling mindset changes among stakeholders. Lastly, the informal leaders were those who were early adopters of innovative practices, impacting their colleagues and increasing participation in the initiative. Overall findings suggested a consistent and aligned collection of behaviors and actions that each type of leader exhibited throughout the initiative.
CHAPTER I: INTRODUCTION

Public school accountability results in the United States have been lackluster for several decades (Hirsch, 2016). There has been virtually no improvement in student achievement in reading and mathematics, at any grade level (NAEP Report, 2017), despite significant federal and state financial investment and complex reform efforts and improvement plans.

The discrepancy between reform efforts and actual results has prompted educators to consider whether the needs of 21st century learners are so vastly different that they need dramatically different educational experiences compared with what schools have previously offered. Education reformers have begun to call for drastic changes in our current education systems in order to accelerate student learning outcomes. Mere shifts or “tweaks” to current programs and practices are proving to be insufficient in impacting student achievement.

These dramatic changes to our education system can be categorized as *disruptive innovations*. Christensen (1997) said disruptive innovations occur when a paradigm is overturned or a completely new paradigm emerges, meaning that an innovator figures out how to break the trade-offs that existed in the old paradigm. Christensen, Horn, and Staker (2013) wrote, “Disruptive innovations...do not try to bring better products to existing customers in established markets. Instead, they offer a new definition of what’s good…” (p. 2). To achieve the student outcomes educators and parents desire, it is likely disruptive educational innovations will be required.
School principals play a key role in improving student achievement through their indirect impact on school capacity (Hallinger, 2010). In cases where education reforms are successful in increasing student achievement, leaders have improved a school’s academic capacity, which “incorporates three main vehicles of leadership . . . school culture, work processes, [and] people” (Hallinger, 2010). Leaders influence student learning through “the development of a set of structural and socio-cultural processes that define the school's capacity for academic improvement” (Hallinger, Bickman, & Davis, 1996; Hallinger & Heck, 1996; Heck, Larson & Marcoulides, 1990; Leithwood, Anderson, Mascall, & Strauss, 2010; Robinson, Lloyd, & Rowe, 2008; Southworth, 2002). The increase in a school’s academic capacity promotes higher levels of student learning. Thus, leaders impact student outcomes by shaping school conditions and building the school’s capacity for change, fostering a culture of teaching and learning (Hallinger, 2010; Heck & Hallinger, 2010). This study addresses the fundamental question of how school leaders foster innovation, investigating leaders’ roles in a district-wide, personalized learning initiative; the study explores the concept of how leaders enhance school capacity in the context of disruptive innovation.

**Innovations**

The concept of student-centered, technology-rich, personalized instruction is gaining momentum across the state of Kentucky. The Green River Region Education Cooperative (GRREC) has helped school districts in their region implement this type of instruction through the professional development and
support made possible through the Race to the Top grant called the kid-FRIENDLY (Kids Focused, Responsible, Imaginative, Engaged, and Determined to Learn) personalized learning initiative. The Race to the Top grant is a financial incentive for states dedicated to reshaping education “by giving states and districts the opportunity to build on their successes and innovate across their schools to improve outcomes and expand opportunities for millions of students” (U.S. Department of Education, 2015). As part of the Race to the Top Grant, GRREC developed kid-FRIENDLY to improve student achievement with an emphasis on personalized learning (U.S. Department of Education, 2012).

Emerging research also suggests that learner-centered, personalized instruction fosters higher levels of student achievement (Jobs for the Future & the Council of Chief State School Officers, 2015). Specifically, students who received personalized learning experiences made greater progress than their demographically-similar peers who did not participate in personalized learning over the course of two school years. Students who were identified as below benchmark caught up to their peers to perform at or above national averages after experiencing personalized learning. These data support the idea that students in the lowest baseline quintile benefit the most from personalized instruction (Pane, Steiner, Baird, & Hamilton, 2015). Though there is no single, agreed-upon definition of personalized learning, it can be conceptualized with specific practitioner “look fors:” instruction tailored to students; rich learning experiences that prepare students for college and/or careers; and teacher roles specializing in the design and management of learning (Pane et al., 2015).
Districts of Innovation

The Race to the Top grant initiative was part of a larger, statewide focus on education innovations, many of which included an emphasis on personalized learning. The main vehicle by which Kentucky pursued this initiative was the District of Innovation law, passed by the General Assembly in 2012, allowing school districts to apply for waivers to traditional schooling regulations, such as scheduling, attendance, curriculum, accountability testing, pathways to graduation, etc., for the purpose of advancing educational innovation. The law states, “Applications may incorporate innovation models and strategies that have been shown to be effective in other districts of states or new innovative models or strategies created by the district” (701 KAR 5:140: Districts of Innovation, 2012). Waivers are intended to remove barriers and “red tape” for school districts to better meet student needs through innovation.

The District of Innovation approval process, as outlined in regulation by the Kentucky Board of Education, requires applicant districts to create an “innovation team,” and compile various materials in an application portfolio. This application included a needs assessment, a student service plan, a professional development plan, and other crucial elements to conceptualize and communicate the vision of the district and the desired outcomes of the district. Additionally, the district submits an application to the Kentucky Board of Education that includes individual school-level innovation plans for all schools in the district, an improvement plan for the district with emphasis on low-achieving students, a district plan that supports the financial and human capacity for implementation
and sustainability, a description of the attendance policy, including the district’s non-traditional attendance policies, an alternate assessment plan, a description and rationale for the innovation strategies and models to be used, a list of all proposed waivers from statutes, regulations and policies, and documentation of broad support from a widespread sample of stakeholders. Applications are reviewed by a committee designated by the Kentucky Commissioner of Education and scored in alignment with the District of Innovation Application Scoring Rubric. Application approval grants an initial 5-year status as a District of Innovation; the district can renew their application after a two-year period. At the conclusion of year two, the district provides the Kentucky Board of Education with a progress report to be reviewed by the committee. Once the application is approved, the district may make amendments to the innovation plan at any time, pending approval from the committee (701 KAR 5:140: Districts of Innovation, 2012).

At the time this study was completed, there were a total of six districts awarded DOI status, in three separate cohorts, beginning with the 2013-2014 school year. The range of innovations have included creating non-traditional, online learning instructional days to accommodate a high number of snow days, transitioning to a completely self-paced curriculum throughout the district, and creating a stand-alone, district-wide library designed to promote problem and project based learning, with the very latest technological tools for students (Eminence Independent Schools, 2018).
The District

Greyford County School District, which was approved as a new District of Innovation in 2016, was chosen as the focus of this study. This small, rural district serves less than 1,600 students in three schools in South Central Kentucky. The Kentucky Board of Education approved the district’s DOI application at the April 2016 board meeting (Miller, 2016). During the initial two-year period, the district incorporated their innovation plans within their state-required district comprehensive improvement plan and provided additional yearly reports to the Commissioner of Education for review. The district also hosted annual site visits from the KDE innovation review team in order to monitor progress.

As part of the approval process, Greyford County Schools submitted an application and innovation plan that states the goals of this innovation initiative. The school district planned to use new and existing technologies and strategies to reach student populations that were struggling in the current model of school, specifically students struggle with failing grades, attendance issues, and earning adequate graduation credits. Greyford County Schools capitalized on its affiliation with Next Generation Learning Challenges, as a recipient of a personalized learning grant, to continue the implementation of Canvas Learning Management System. Canvas is a learning management systems (LMS) that allows teachers to deliver content and instruction virtually, enabling students to access their work remotely. The system was adopted to foster innovation in students’ daily routines by offering blended learning opportunities. The school
aimed to provide a “catalyst for teachers and students to explore new and exciting ways of learning” (Greyford County District of Innovation Application, 2015). Nontraditional ideas were proposed and implemented via the DOI process, such as non-typical schedules, allowing students to work from a remote location on their coursework, providing job-training during the school day as students opened and managed a district-owned donut shop, enrolled in dual credit courses, and worked at an advanced pace or on advanced material, as compared to grade-level benchmarks.

Additionally, the district proposed that it would work to connect with students in ways that this district has “not been able to in the past” (Greyford County District of Innovation Application, 2015) by implementing a student advocate/advisee program in the middle and high school. Groups of approximately 20 students identified as at-risk were assigned to educators at the beginning of the year and met at least monthly with the assigned group, as well as weekly “checkups” with students in the form of verbal contact and grade reviews. The same adult worked with the group of students for a three year period at the middle school level and for a four year period at the high school level.

As a third goal, Greyford County created a small group of “direct target” children who were targeted to “receive specific and intense interventions along with a fully personalized path of academic studies which will include academic readiness” (Greyford County District of Innovation Application, 2015). The district was approved for regulation waivers in attendance (704 KAR 3:305), mandated
courses at the high school level (704 KAR 3:305), preschool student policies (704 KAR 3:410), as well as EPSB certification rules (16 KAR 2:010). The district explored non-traditional scheduling and competency-based assessment and grading. Greyford County Schools articulated its expected outcome for at least 40 percent of the student body to be working at an accelerated pace at the end of the 2016-2017 school year and growth on the Measures of Academic Progress (MAP) assessment would indicate an overall growth percentile above the national average with a target of 60 percent of student exhibiting growth to a statistically significant degree. The district proposed that overall office and discipline reports will drop by a minimum of 25 percent, and pre and post parent and student surveys would indicate a minimum 30 percent increase in overall satisfaction with schools (Greyford County District of Innovation Application, 2015).

**Problem Statement**

Though there is extensive literature about leaders and their role in impacting student outcomes, researchers are not yet clear how leaders build a school’s academic capacity during innovative change efforts. Researchers do not yet know how school leaders can help facilitate innovations, specifically personalized learning, and there is a need to explore this intersection of leadership and innovation. There is a need to investigate whether empirical findings (like Hallinger’s) hold true in innovative situations, both when there are small-scale innovations occurring and when there are disruptive redesigns of school models.
Purpose of the Study

If there is promising, yet very new research suggesting innovations like personalized learning have significant implications for student achievement, especially students who have traditionally struggled to keep up with their peers, researchers must investigate this concept to better understand how these innovations can be utilized in public schools to meet lofty accountability goals. Furthermore, if emerging literature suggests these innovations do aide educators in increasing student outcomes, researchers must investigate how leaders facilitate these changes. Evidence shows leaders impact student achievement, so there must be a relationship between leadership and innovation that could potentially be essential to shifting educational practices that could result in the achievement results educators have desired for decades.

This case study examined the roles of leaders (superintendent, principals, and informal leaders) and the role that each played during the implementation of initiatives described in the District of Innovation implementation plan. The study enabled the researcher to gain an in-depth understanding of the specific situations leaders encountered and interpret meaning from their actions (Hancock & Algozzine, 2010). The researcher dealt directly with the individual leaders in this case, conducting qualitative research that involved observing activities and events as they occurred in their natural setting (Creswell, 2009; Hancock & Algozzine, 2010; Yin, 2015).

Greyford County Schools was identified as a site that can adequately help the researcher better understand the complex phenomenon (Creswell, 2008) of
leadership by investigating how leaders impact innovation efforts. An open-ended case study research method allowed the researcher to gain insight from the participants as the personalized learning initiative unfolded without influencing the views of participants (Creswell, 2008; Denzin & Lincoln, 2000).

This case study consisted of data collection in the form of interviews, observations, artifact review, and focus groups. The researcher interviewed the superintendent, principals, and a representative sample of teachers. The researcher conducted observations of district-level administrative meetings, faculty meetings, classrooms, and other various situations where leaders spoke out about the goals of the innovation implementation, reflecting on the efficacy of the implementation efforts. An artifact review involved an analysis of all documentation associated with the District of Innovation implementation, with an emphasis on the role leaders play in communicating goals, discussing implementation, and assessing the effectiveness of the implementation efforts. Finally, in the latter portion of this study, focus groups of administrators and teachers were utilized to explore the dynamics of leadership and innovation efforts in greater depth once the innovation was underway.

The researcher conducted a holistic analysis of data (Yin, 2009) and conducted an analysis of themes, identifying large clusters of ideas (Stake, 1995) and further, gathered natural generalizations in which others can learn and apply to related scenarios (Stake, 1995). All interviews and focus group transactions, observation notes and artifacts were analyzed and coded for patterns and themes (Miles, Huberman, & Saldaña, 2014).
This research functions as an instrumental case study (Stake, 1995), helping leaders and practitioners better understand innovation and how it is facilitated by leaders. This study has the potential to greatly impact current and future practitioners in public education. Because the idea of leadership in innovation is relatively unexplored, qualitative research methods prove beneficial in exploring this new concept, and the research findings can be used to create a platform to explore new research interests and questions (Yin, 2015). This study can serve as a reference point to help researchers refine theories of leadership as it applies to innovation and may suggest implications for further research (Stake, 1995).

**Significance**

Researchers have studied the concept of change in organizations and concluded that leaders and staff have a significant impact on any change effort and that leadership involvement must be ongoing in order for change to be successful and sustainable (Hall & Hord, 2009). While there are various studies on leadership in public schools, there are limited studies investigating the role of school leaders in personalized learning initiatives, as well as limited research that focuses on leadership in innovation. There have been very few attempts to study how the variables of leadership and personalized learning initiatives interact to shape the implementation of an innovative initiative and shape student outcome. Furthermore, few studies have investigated the role of informal leaders, that is those who do not occupy formal leadership roles with “legitimate power” (French & Raven, 1959). This topic has been deemed “neglected” in research by Muijs and Harris (2003). Likewise, Leithwood, Louis, Walstrom, Anderson, Mascall, &
Gordon (2004) wrote, “present understandings about the nature of successful school leadership and the paths along which its influence travels to improve teaching and learning include more than a few ‘black holes,’ not to mention many more that are still only dimly lit” (p. 625).

This qualitative case study offers a new contribution to research at the intersection of empirical literature surrounding organizational change, school leadership, and personalized learning by following one school district as it implemented a personalized learning initiative. This is imperative to the future of education because leaders, at all levels, who are unaware of the importance in matching interventions, policies, and improvement strategies to the needs of a school could bring more harm than good (Hallinger & Heck, 2010).

Research Questions

The central research question for this study was:

What role do leaders play in the implementation of a district-wide, personalized-learning initiative?

Additional questions included:

Question 1: What is the role of the superintendent in the implementation of a district-wide, personalized-learning initiative?

Question 2: What is the role of principals in the implementation of a district-wide, personalized-learning initiative?

Question 3: What is the role of informal leaders in the implementation of a district-wide, personalized-learning initiative?
CHAPTER II: REVIEW OF THE LITERATURE

Leadership is a well-researched topic, providing both practitioners and scholars with an understanding of how leaders impact their organizations, both generally and within the specific context of K-12 education. Empirical research supports the idea that school leaders impact their organization in a myriad of ways, many of which will be discussed in this chapter. Heck and Hallinger (2010) focus on how leaders impact student outcomes; they suggest they do so in a mediated way by building a school’s academic capacity. Despite this large body of research, the question of how leaders influence and facilitate school innovation is a topic just now being considered and investigated. As public school systems face increasing pressure to reach all students, at all levels of academic, emotional, and social readiness, many educators have begun to rethink traditional methods of schooling, raising new questions about how leaders influence organizations as they attempt to realize disruptive organizational innovation to better meet the needs of diverse students. This intersection of leadership and innovation evokes a need to better understand how leaders not only affect change in their organization, but how they affect innovative and disruptive change. The current study was designed to investigate that relationship in order to provide new insights for researchers and practitioners as the landscape of school improvement and reform shifts and evolves with new generations of learners.
Leadership

Empirical evidence suggests that the success (or failure) of an organization is frequently attributed to the actions, attitudes, or dispositions of the leader (Bennis, 2007; 2009; Kirkpatrick & Locke, 1991). Literature dealing with organizational theory often defines leadership as an influence process that shapes the behaviors of individuals and groups toward the attainment of goals (Yukl, 2006). There is no one agreed-upon definition of leadership--what it does, or what it looks like; however, researchers have identified numerous forms and types of leadership and leadership behaviors. Leadership is observed to be adaptive--in that different types are more effective in certain situations (Day et al., 2010), reviews of literature have highlighted a set of cognitive “traits” that are associated with successful leadership: intelligence, problem-solving capacity, and knowledge relevant to the content of challenges facing the organization (Zaccaro, Kemp, & Bader, 2004). Northouse (2018) suggests a leader possessing certain traits will be more effective; this is known as the trait theory and suggests that the leader and the leader’s traits have the most significant effect on the leadership process. On the other hand, the same author discusses the behavior approach to leadership, for which there is also considerable evidence, suggesting that effective leadership is influenced by the leader’s ability and behaviors instead of his or her personality (Northouse, 2018).

Leadership in Education

Leadership in education continues to be an area of high interest for practitioners and scholars alike. Public education, as it has come under
incredible scrutiny in the last several decades, has fueled a heightened interest in the role of leadership in regards to school improvement and student outcomes, especially because principals have significant influence in schools at all levels of performance (Leithwood et al., 2010). The recent single-minded focus on high-stakes accountability has facilitated a shift for effective school leaders to shape the narrative of success around goals related to academic mastery, as measured by scores on standardized tests. This shift has led to heightened expectations for student and faculty performance (Jacobson, Brooks, Giles, Johnson, & Ylimaki, 2007). Interest has grown, too, in understanding educational leadership as not just the function of the principal, but a broader function involving all school stakeholders (Gronn, 2002; Leithwood et al., 2010; Ogawa & Bossert, 1995).

This broadened understanding of leadership comes as a result of researchers identifying “blind spots” (Hallinger & Heck, 1996) in empirical data. Senge (2006) articulated how traditional views of leadership reinforce a focus on short term organizational success and charismatic heroes, while contemporary views are associated with a focus on systems, empowerment, transformation, and communities of learning. Researchers Hallinger and Heck (1996) identified many “blind spots” or shortcomings in leadership research, particularly in the realm of education. One of these blind spots included an over-emphasis on formal leadership roles, with researchers relying too heavily on the head teacher or principal’s accounts of effective leadership in action (Morrison, 2002; Owens, 2001; Razik & Swanson, 2001). Likewise, Muijs and Harris (2003) agreed that research has neglected leadership at levels outside the formal leader’s
perspective. School leadership no longer only refers to formally designated roles, but instead has become a collective construct that is shared among leaders, teachers, and support staff (Gronn & Hamilton, 2004; Spillane, Camburn, & Pareja, 2007).

Even with an increased and widened focus on leadership, how it functions in an educational setting, and its impact, a universal definition of educational leadership has remained elusive. Leithwood and Riehl (2003) reviewed extant research and concluded there exists a set of core leadership practices that are necessary, however insufficient when considered exclusively, for improved student achievement. They define effective leaders as those who emphasize leadership as a “function more than a role” (p. 3), and impact “student learning by helping to promote vision and goals; ensure that resources and processes are in place to enable teachers to teach well” (p. 4). Leithwood and Riehl (2003) suggested that instead of prescribed beliefs, traits, or qualifications, effective leaders embody core practices, like setting direction, developing people, and designing procedures based on values. Other scholars support this idea as well, finding evidence to support the notion that instead of working with a single set of universal “commandments” about leadership, school leaders have more impact when developing strategies that are focused on the needs of their particular schools (Day et al., 2010; Hallinger, 2010).

Other researchers echo the perspective that educational leadership must be adaptive to the needs of individual schools and districts. For example, Day et al. (2010) presented an argument for leadership action based on the needs of the
school rather than normative prescriptions about effective leadership in general. Likewise, Hallinger and Heck (2010) reported evidence that no single approach to leadership will work to improve all schools. These researchers suggested effective leadership strategies are highly contextual and must be responsive not only to the school's initial condition, but equally responsive to the changes that occur to the conditions as improvement efforts are implemented.

**Leadership and Achievement**

Leadership success in education is frequently equated with student achievement, as measured by high stakes accountability (Jacobson, Johnson, Ylimaki, & Giles, 2005). In fact, leaders’ positions often come under scrutiny from conflicting demands and expectations from different stakeholders (Day & Leithwood, 2007), thus driving an increased interest in leadership in school reform and improvement efforts. Hallinger and Heck’s widely cited review of literature (1996;1998) highlighted the need for frameworks that captured the indirect relationships between school leaders and student outcomes. Many researchers attempted to utilize direct-effects models that used such measures as correlations, t-tests, or chi-square, but those results did not provide consistent evidence of leadership effects on student achievement (Braughton & Riley, 1991; Cantu, 1994; Cheng, 1994). However, results supporting leaders’ indirect effects on student achievement are globally evident; multiple studies connect successful leadership to the overall condition of the organization (Silins, Mulford, & Zarins, 2002; Kruger, Witziers, & Sleegers, 2007) instead of direct impacts on student achievement. Studies have captured leaders’ influence on outcomes through
indirect paths of effects on staff and school conditions, school culture, teachers’ instructional practices, and faculty commitment to the school (Hallinger & Heck, 1998; Leithwood, Jantzi, & Fernandez, 1994). Leithwood and Jantzi’s (2006) transformational leadership analysis resulted in findings of leaders’ effects on teachers’ work settings, motivation, and classroom practices.

More recent research continues to confirm the complex and indirect relationship between leadership and student outcomes, specifically by leaders influencing student learning through working with students’ families (Louis, Dretzke, & Wahlstrom, 2010; Supovitz, Sirinides, & May, 2010), by leaders promoting teacher collaboration (Goddard, Hoy, & Woolfolk Hoy, 2000; Supovitz et al., 2010), by leaders framing and sustaining school vision and planning specific goals and strategies for improvement (Hallinger & Heck, 2009; Leithwood, et al., 2004), leaders acting as instructional leaders and promoting teachers’ development (Hallinger, 2005; Knapp, Copland, Honig, Plecki, & Portin, 2010), enhancing the organizational and social structures in their schools (Hallinger & Heck, 1998; Knapp, Copland, Darling-Hammond, McLaughlin, & Talbert, 2002; Leithwood et al., 2004), and by investing in personnel by hiring and retaining qualified teachers (Harris, Rutledge, Ingle, & Thompson, 2010; Leithwood et al., 2004). Engagement in such activities are indicators of leadership that indirectly influence student outcomes.

Regardless of the many types of leadership activities evident in education, for the sake of this study, Heck and Hallinger’s (2005) description of leadership was used to conceptualize effective school leadership: Heck and Hallinger
recognized leadership as a cluster of “change-related functions such as setting a vision and goals for the school and motivating stakeholders to move towards their achievement” (p. 240). In a later study, Hallinger and Heck (2010) built on this framework of leadership and reported that leadership behavior is a significant driver for change, but is insufficient when considered exclusively, to bring about improvement in learning outcomes. Considering this perspective of leadership, it can be concluded that leaders, specifically school leaders, have a significant, yet indirect, impact on student outcomes. Many other studies and researchers have presented findings to support this claim, suggesting the quality of leadership is important in impacting the motivation of teachers and the quality of their teaching, which does have a direct influence on student outcomes (Fullan, 2001; Leithwood et al., 2004; Marzano, Waters, & McNulty, 2005; Sergiovanni, 2001). There is widespread agreement among scholars that principals’ instructional leadership is key to increased student achievement, supporting school level leadership is essential to focusing a school on improved teaching and learning throughout the institution (Louis et al., 2010; Leithwood et al., 2010).

**Leadership for Learning**

In an attempt to articulate the many ways leadership manifests, particularly in educational settings, researchers have identified several types of leadership that influence educational outcomes. Of those types, instructional leadership (Hallinger, 2010; Hallinger et al., 1996; Heck et al., 1990; Kleine-Kracht, 1993; Leither, 1994; Wiley, 2001), transformational leadership (Leithwood, 1994; Leithwood & Jantzi, 2006; Leithwood, Jantzi & Steinbach,
1999; Silins, 1994), and distributed leadership (Gronn, 2002; Spillane, 2006; Shared-Barth, 1990; Hallinger & Heck, 2010; Heck & Hallinger, 2009; Marks & Printy, 2003; Pounder, Ogawa, & Adams, 1995) have surfaced as the most frequent types of leadership observed in public schools. Though not every leadership type is explicitly mentioned in the definition of “leadership for learning” (Hallinger, 2010), this concept suggests the most effective leaders exhibit elements of various styles at appropriate times. This can include transactional leadership (Burns, 1978), and a variety of other leadership approaches.

Figure 1. Conceptual model of school improvement leadership and student learning.
Hallinger (2010) highlighted empirical results across a number of studies that show patterns of improved education as a result of combined styles of leadership (Bell, Bolam, & Cubillo, 2003; Cheng, 1994; Day et al., 2010; Heck & Hallinger, 2009; Leithwood et al., 2010; Leithwood & Jantzi, 2006; Mulford & Silins, 2003, 2011; Robinson et al., 2008; Southworth, 2002; Witziers, Bosker, & Kruger, 2003). Hallinger coined this as “leadership for learning” (see Figure 1). This idea of leadership encompasses features of instructional leadership, transformational leadership, and shared leadership (Hallinger, 2003; Heck & Hallinger, 2009; MacBeth and Cheng, 2008; Marks & Printy, 2003; Mulford & Silins, 2011). As a result of a review of literature, Hallinger (2010) developed a definition of “leadership for learning,” in which leadership efforts are employed by leaders to achieve school goals, with a particular focus on student learning (Hallinger, 2003; Day et al., 2010; Leithwood et al., 2006; Leithwood & Jantzi, 2010; MacBeath & Cheng, 2008; Mulford & Silins, 2003; Robinson et al., 2008). Leadership for learning represents the critical role leadership plays in creating, implementing, and sustaining a school focus on learning (Hallinger & Murphy, 1986; Hallinger et al., 1996; Heck et al., 1990; Marks & Printy, 2003). Hallinger’s (2010) framework conceives of leadership as explicitly focused on student growth and outcomes; however, it is not exclusive to such practices. This model of leadership for learning suggests leaders do not directly impact student achievement, but their influence is mediated by processes and conditions that enhance learning experiences for students, therefore indirectly affecting student outcomes (Bell et al., 2003; Bush & Glover, 2003; Hallinger & Heck, 1996;
Leithwood et al., 2009; Pitner, 1988; Robinson et al., 2008). In leadership for learning, the principal is important, but the leader’s efforts can only be successful through the cooperation of their staff, therefore their leadership efforts are mediated by the culture, processes, and efforts of the school, collectively. It is important for leaders to focus on learning, not only for students, but for teachers as well as part of capacity building (Barth, 1990; Fullan, 2001; Robinson et al., 2008). The indirect effects of principal leadership on student outcomes are achieved through shaping the school’s capacity for academic achievement by developing teachers (Bell et al., 2003; Hallinger & Heck, 1996; Robinson et al., 2008).

**Building Capacity**

The school's culture and improvement capacity are both essential mediating factors in how principals influence student learning. Capacity building in schools has been defined as, “creating the conditions, opportunities, and experiences for collaboration and mutual learning” (Harris, 2002; p. 3). Hallinger (2010) describes school level conditions that impact teaching and learning as the “schools’ capacity for academic improvement, "which includes components of school culture, work processes, and people” (p. 132). In fact, it is the process of building capacity (and simultaneously creating a culture where change is possible) by which a principal exercises his or her indirect influence on student achievement, described by Harvey (2003) as “the collective competency of the school as an entity to bring about effective change” (p. 21). Heck and Hallinger’s (2010) idea of cultivating a school culture that allows for an increased capacity
for improvement resonates with a numerous other studies. Southworth (2003) reported principals, to address time constraints, achieve success when they focus on building teacher capacity through professional development in order to create more favorable conditions for learning. Leithwood and Riehl (2005) also shared evidence of increased student outcomes when leaders created a coordinated purpose within their school and provided the resources and motivation to enable teachers to develop skills necessary for instructional improvement. In a 1998 study, Leithwood, Leonard, and Sharratt highlighted successful education leaders who develop schools that support and sustain the performance of teachers, which indirectly impacted the outcome of students. In all of these examples of capacity-building, the school leaders indirectly affected student achievement by increasing the quality of teaching and learning experiences and by developing teachers. Leithwood et al. (2007) summarized this in a review of literature, stating that instances of successful leadership included practices of strengthening school culture (Leithwood & Jantzi, 1990), redesigning organizational structures (Louis & Kruse, 1995; Roberts, 1985), and creating collaborative processes (Sleegers, Geijsel, & Van den Borg, 2002). When considering the factors involved in building a school’s capacity for improvement, leaders influence instructional quality, foster shared or distributed leadership in the school, direct the overall school culture toward student learning. In a study analyzing the factors involved in building a school’s capacity, Hallinger and Heck (2010) found capacity building and leadership were part of a mutually
reinforcing relationship where an increase in one area led to a positive change in the other.

**Distributed Leadership**

Distributed and shared leadership and decision-making power is another component of building a school’s capacity, which indirectly influence student learning. Empirically, researchers have crafted meaningful distinctions between terms such as distributed leadership (Gronn, 2002; Spillane, 2006), shared leadership (Marks & Printy, 2003; Pounder et al., 1995), and collaborative leadership (Hallinger & Heck, 2010), but for the sake of this study, all of these leadership styles reflect a similar concern for broadening the source of school leadership solely from the head of the school to more individuals in the organization. To further conceptualize this idea of distributed leadership, Copland (2003) offered an operational definition adequate for this study: “Decisions about who leads and who follows are dictated by the problem situation, not necessarily by where one sits in the hierarchy” (p. 378). This means that tasks and accountability are shared across an organization, allowing many individuals the opportunity to invest time and effort in the overall goals or vision for the school. In terms of increasing school improvement capacity, broadening the sources of leadership in a school provides for additional, and sometimes nontraditional, avenues to positively impact the teaching and learning happening in the organization (Caldwell, 1998; Saphier & King, 1985). School leaders can promote distributed forms of leadership by creating problem-solving teams; leaders typically must select teachers to tackle leadership roles based on teachers’
expertise (MacBeath, 2005). Distributed leadership behaviors are practical, as the collective capacity of an organization typically far exceeds the capacities of any one leader; distributing leadership is a means for accessing and capitalizing on the collective cognitions of an organization in order to achieve complex tasks and reach ambitious goals (Leithwood et al., 2007).

Further, student achievement is more likely to be elevated when leadership tasks are shared throughout the school, and when teachers are empowered to take the lead on tasks or problems they believe are important (Crowther, Ferguson, & Hann, 2008). Louis and Marks (1998) found that in schools where teachers’ work reflected the sharing of leadership responsibilities, there was a positive relationship with students’ academic performance. This finding suggests a shift away from a rigid hierarchy of leadership towards a culture of promoting a learning community, where individuals are chiefly concerned with maximizing the achievement capacities of all those involved in the organization-- students and teacher alike (Gronn, 2002). Generally, as a result of recent literature suggesting the benefits of distributed leadership, school leaders have high expectations to make the practice work in their school (Harris, 2005; Smylie, Conley, & Marks, 2002), but ironically, the effectiveness of the shared leadership attempts depends on the leaders’ initiative to enact such practices (Leithwood et al., 2007). This idea of sharing responsibility and power can make leaders and followers uncomfortable; it can be hard for both groups to accept changes in power structures (Harris & Lambert, 2003; Murphy, 2005). It is essential for the different groups and individuals in a school to take a critical look
at their beliefs about professional roles. As Harris and Lambert (2003) stated, “changing roles grows out of changing self-perceptions; and, in turn, new roles provide spaces in which individuals can redefine what it is to be a teacher, parent, pupil, administrator. New roles are accompanied by new responsibilities” (p. 124).

Aside from building the capacity of a school by focusing on learning and development of both students and teachers, another indirect pathway found in empirical research is the idea that collaborative leadership contributes to school improvement through the capacity-building process (Fullan, 2001; Robinson et al., 2008).

**School Culture**

As leaders are distributing authority, acting as instructional coaches, and building capacity, they are also navigating relationships with teachers and facilitating collaboration among them, all of which intersects with creating a healthy school culture. In fact, building the capacity for organizational learning demands forms of leadership different from conventional models (Leithwood, Jantzi, & Fernandez, 1994; Murphy & Louis, 1994). Even if research makes it clear that shared and distributed leadership practices help facilitate greater gains in student achievement, not all schools are initially ready to implement those types of behavior. Leithwood et al. (2007) reported hierarchical style school cultures diminish the potential of creating relationships between teachers and leaders required to encourage shared leadership. Furthermore, Fullan and Hargreaves (1996) recommended schools develop a collaborative culture that
draws upon the skills and expertise of its members, becoming less dependent on the school leader. Evidence continues to accumulate in support for building a capacity for organizational learning and the necessity of alternative school structures, as opposed to traditional school models (Bryk, Easton, Kebrow, Rollow, & Sebring, 1993; Kraus, Louis, & Bryk, 1995). To be successful in building up the capacity of a school, there must exist a sense of distributed leadership, cohesion among staff at all levels, and trust (Hopkins & Jackson, 2002). Bezzina (2006) reported findings to support this collaborative culture, suggesting collegial relationships among school personnel and the collective learning of the organization were at the center of building a school’s capacity for sustained improvement. For improvement to take place, teachers and leaders must be involved and engaged in a school culture that promotes collaboration and shared meaning, eventually transforming into communities of practice (Sergiovani, 2000). In this type of school culture, where the focus is on building a school’s capacity for improvement and heightened student outcomes, the collegial relationships between leaders and teachers are essential. Fullan (2001) wrote, “It has become increasingly clear that leadership at all levels of the system is the key lever for reform, especially leaders who focus on capacity building and develop other leaders who can carry on” (p. 21). To achieve a school culture required for significant improvement, a focus must be placed on relationships, and distributed leadership is required to create dynamic interactions between multiple leaders and followers (Timperley, 2005). The school’s culture and successful distributed leadership are mutually influenced by each other.
Evidence suggests the extent teachers assume organizational leadership tasks and roles depends on the school’s structure and culture, the opportunities present for capacity-building, the nature of interactions between leaders and followers, and active encouragement and support by their principals (Day & Harris, 2003; Harris, 2005; Harris & Lambert, 2003; Leberman & Miller, 2005; Leithwood & Riehl, 2003; Leithwood, Jantzi, & Steinbach, 1999).

Another component to a collaborative culture is teachers’ professional development needs, and the extent to which school leaders address and respond to those needs. Effective principals are not only charged with the responsibility of being an instructional leader, but are also required to stimulate meaningful intellectual interaction among faculty concerning ideas related to reform and improvement (Newman & Associates, 1996). There is evidence that school leaders can cultivate a greater capacity in a school by providing high-quality professional development that facilitates teacher engagement in collaborative exploration of innovative approaches to teaching and learning (Frost & Harris, 2003). However, a principal must find a way to connect these learning experiences for teachers, as professional development will not have its intended impact if it is discrete and compartmentalized (Fullan, 1992). Sergiovanni (2000) supported this idea, asserting authentic teacher engagement in student-focused improvement efforts must be central to the professional development process.

Leadership and Change

In order for a school’s capacity for improvement to increase, it is likely a leader must facilitate changes in the organizational structure of the school and
cultivate the school culture into one that is receptive of change and improvement efforts. This is significant in Hallinger’s context of capacity building, as many leaders are charged with responsibility to change current programs, practices, systems, etc. as part of their quest to improve student outcome, which is the ultimate goal of their efforts. Since leaders are the facilitators in increasing capacity for improvement, and in developing a school culture of collaboration, they play an essential role in how their staff perceived change and innovation. All these components necessary for improving student outcomes are influenced by each other; they all must work in unison toward goals of improvement with the leader facilitating the processes and activities to achieve those goals. Hargreaves (2007) noted a culture of continuous innovation depends on the capacity of a school to continue learning, including learning from each other throughout the duration of educators’ careers.

Change in education is described as a process that enables innovations to be adopted by the school and staff and transforms the school culture to be receptive of those changes (Fullan, 2007). Specifically, the process of change can be described in phases of initiation, implementation, and institutionalization and the principal is charged with the responsibility of leading the efforts “on the ground” (Fullan, 2007, p. 156). This description of change implies that principals are the change agents of a school, facilitating shifts in culture that allow for innovation success. Marzano and colleagues (2005) described a change agent’s responsibility as challenging the status quo. This behavior requires the leader to foster risk-taking and protect staff members who take risks, suggesting the leader
must possess a high degree of comfort with uncertainty and conflict as innovations are implemented (Marzano et al., 2005). An additional layer of responsibility for the leader has surfaced, as research on organizational change suggests removing structural barriers hindering implementation of innovation may be more critical to the success of an initiative than adding resources (Hall & Hord, 1987; Sarason, 1996). These impediments may include, but are not limited to, fragmented organizational structures for collaboration, low interdependence in teaching roles, and formal decision-making processes that are perceived as unfair, as these hierarchical controls may hinder the capacity for organizational learning (Starbuck, 1992). Leaders must be clear in their role as change agents, clearing the path for innovation and change to take place.

In the past several decades, wave after wave of change initiatives have promised to conquer the difficulty of change in schools (Sarason, 1990). However, many improvement initiatives include forcefully executed, meticulously aligned, and intense large-scale reform attempts initiated at the district level (Elmore & Burney, 1997), and even nationally comprehensive school reform movements (Datnow, Hubbard, & Mehan, 2002) and federal mandates such as No Child Left Behind (2002) (now known as the Every Student Succeeds Act). Many of these forceful and rigid reform efforts have dictated end goals for schools without any direction or guidance as to the means to achieve those goals. Fullan (2002) suggested change in schools must be systematic and produce positive impacts on academic structures that shape and enhance teachers’ practice (Hall & Hord, 2002; Mulford & Silins, 2003; Murphy, 2005;
Murphy, Weil, Hallinger, & Mitman, 1982; Oakes, 2005). Fullan (2013) also argued that in order to effect change, leaders must foster connectedness and learning through professional capital, which includes human, social, and decisional components (Hargreaves & Fullan, 2012). Without a strong and competent leader who is aware of how change impacts an organization, innovation efforts often fizzle out. Educators, initiating reform on their own, can create islands of innovation but are not generally able to scale up those efforts to affect widespread change throughout the organization (Hargreaves, Earl, & Ryan, 1996). There is a growing body of evidence in school improvement literature suggesting building a school’s capacity is a means of sustaining improvement (Fullan, 2001; Hopkins & Jackson, 2002; Mitchell & Sackney, 2000). In fact, research evidence suggests that without a competent and aware leader, change initiatives that have already been implemented come to a standstill, supported by the idea that when an effective leader leaves an organization, progress often halts and previous practice re-emerge (Copland, 2003).

When dealing with change, it is essential for leaders to have an understanding about how their organizations perceive those initiatives. When implemented, or change is attempted, teachers and staff do not all respond in the same way, or at the same time. There are many factors that influence how teachers respond, like their gender (Datnow, 2000), their subject expertise (Goodson, 1988), personal beliefs about the change (Hall & Hord, 2002), and their age and career stage (Hargreaves, 2005). In education, change is
unrelenting and cyclical (Abrahamson, 2004), so being competent in understanding teachers’ individual and collective perceptions about change, and thus, responding to those perceptions is essential to reform and improvement efforts (Hargreaves, 2005). Successful change initiatives start at the individual level, as the school as a whole does not change until many of its members have accepted and responded to the change (Hall & Hord, 2009). Considering the evidence that individuals respond to change in unique ways, Hall and Hord (2009) asserted that even when change initiatives are introduce to every member of an organization at the same time, the rate at which members accept and adapt to the change varies drastically. Taking this finding into account, it can be inferred that outcomes should vary based on those individual reactions to change. Outcomes should be higher for individuals who have moved further across the spectrum of implementation; students in classrooms with teachers who have moved further in the journey of implementation had higher test scores on standards based teaching of mathematics, as reported by George, Hall, and Uchiyama (2000). On the other hand, some teachers will be slow, even resistant to adopt new practices and behaviors. Many leaders will interpret this reluctance as outright resistance to change; however, it may actually be the manifestation of grief over the loss of favorite and comfortable behaviors (Bridges, 2009).

Similarly, Moore, Goodson, and Hargreaves (2006) suggested resistance should not just be perceived as an obstacle to change, but rather as an opportunity to learn from the wisdom of those who are exhibiting the reluctance. As members of an institution move along the continuum of implementing
initiatives, those changes take time to fully implement at a high level by the entire organization, as most changes in education take three to five years before they are considered fully implemented (George et al., 2000; Hall & Loucks, 1977; Hall & Rutherford, 1976; Hall & Hord, 2009). It is also worth mention that most investigations of educational change are based on snapshots of early implementation change efforts (Lieberman, 1995; Wasley 1994) instead of the success of their long term trajectory.

**The Need for Change**

The most recent NAEP results (2017) show very little academic improvement across states and for the nation collectively. According to national 2017 NEAP results, there was no change in reading or mathematics achievement scores in grades 4 and 8 and in grade 4 reading as compared to 2015. For the state of Kentucky, there was a decrease in achievement in 2017 (as compared to 2015) in grade 4 mathematics, and no change in mathematics scores in grade 8. Likewise, in reading achievement data, there was a decrease from 2015 to 2017 in both grades 4 and 8. There was a one-point increase from 2015 data in reading achievement in grade 8 reading. Multi-year trends show the same pattern with very small point variations in growth and regression, resulting in flat achievement that has been evident for decades.

Results like these drive the need for change in our schools. Our academic achievement, as a nation, is not keeping pace with the economic and technological growth we experience as a country. Specifically, student achievement and outcomes are not adequate to fill an increasing number of jobs.
in the science, technology, engineering, and math (STEM) fields (Atkinson, 2012; Tapping America’s Potential, 2008). There is a drive to improve these areas of schooling, specifically, as well as increase the overall effectiveness of student’s educational experiences. Simultaneously, there is a tug-of-war among competing demands in education. Education systems are in turmoil because they are expected to be innovative while also remaining committed to greater standardization in terms of curriculum and student performance; state and federal reform efforts have demanded greater standardization, yet universal notions of what and how to learn are shifting to meet the needs of today’s learners, resulting in an undermining of schools’ capacity to actually be innovative (Giles & Hargreaves, 2006).

Senge, Cambron-McCabe, Lucas, Smith, and Dutton (2012) argued that our modern education systems (what and how students learn) are failing to teach the types of skills students need in a post-industrial society. In review, rather than empower schools to develop their capacity to solve complex problems, waves of reform efforts have done little more than intensify existing organizational arrangements (Fullan, 1999; Sarason 1990). In another study, Fullan (1995) argued that the countless initiatives schools and districts adopt, as well as the rapid pace in which they are adopted, “creates constant overload, fragmentation, and mystery. Even the most reform-minded educators have difficulty figuring out what is meant by the latest fads as they burn out attempting to find coherence and meaning” (p. 230). In order for reform efforts to be successful, a school must restructure to promote learning and engagement for both educators and their
students, and in order to achieve a school culture where learning by all is a key goal, schools will have to reorganize their traditional structure to provide time for development of skills (Fullan, 1995; Silins et al., 2002). Decades ago, many researchers anticipated that radical reform would be necessary to change the working conditions of teachers and cultivate a school culture where schools become learning organizations (Donahoe, 1993; Fullan, 1995; Marks, Fleming, Long, McMillan, 2000; Wohlstetter, Smyer, & Mohrman, 1994).

Though the “factory model” (Hess, 2016) of schooling has changed very little over the past century, researchers, educators, and leaders are observing a shift in the way K-12 public schools are choosing to deliver instruction to students in order to reach those ambitious goals. Online learning, “blended learning” (Staker & Horn 2012), alternative models of schooling, and other types of transformations are making an appearance in schools across the nation and the globe.

Many educators are reluctant to adopt new programs and initiatives because they have witnessed and experienced the rise and fall of so many improvement efforts in the past (Datnow, 2000; Gitlin & Margonis, 1995; Hargreaves, 1994; Huberman, 1992; Lortie, 1975; Rosenholtz, 1989). Because of the seemingly constant barrage of education reforms and the stagnant achievement results despite those reform efforts (Hirsch, 2016), many educators just wait out the newest fads in educations because they are confident they will be short lived. This reluctance (and even resistance) is a significant issue leaders must deal with as they create collaborative school cultures that are able to
facilitate the types of education change needed to improve learning experiences for students, all of which plays a role in increasing the academic capacity for a school.

**Innovation**

Thomas Kuhn (1970) was the first scientist to write extensively about paradigms. His original work dealt strictly with scientific ideas, but over time, his work has been applied to social concepts, including education. Kuhn explained that a paradigm begins when a body of knowledge is cultivated and improved upon over time. Advancements concerning a specific paradigm are often incremental, as scientists and specialists assume the paradigm’s rules and facts are true; they rarely question a paradigm because it is so important in understanding their field. Occasionally, a scientist or researcher will discover an idea that does not fit within the current rules of the paradigm--an anomaly. Typically, all the anomalies are collected and put to the side until a scientist (usually from outside the field) can articulate a pattern or draw a conclusion about the collection of anomalies. When a researcher can find a commonality between numerous anomalies, a new paradigm can take precedence and further develop as scientists cultivate the new body of information. The old paradigm shifts or fades away and the new paradigm becomes more prevalent. Kuhn described a paradigm shift as a dramatic change in a field (1970).

Christensen (1997) used Thomas Kuhn’s (1962) concept of paradigms to describe innovation attempts and to define “disruptive innovation” as it relates to school and education. When a paradigm is overturned or a completely new
paradigm emerges, Christensen considered it “disruptive innovation,” meaning that an innovator figures out how to break the trade-offs that existed in the old paradigm. Christensen et al. (2013) wrote, “Disruptive innovations… do not try to bring better products to existing customers in established markets. Instead, they offer a new definition of what’s good…” (p. 2). For example, if one can figure out how to break the traditional, perceived trade-off between project-based learning and lecture-based learning, it would potentially be considered a disruptive innovation. If a school could replace or redesign its current curriculum in which students listen to a lecture, read assigned material, study assigned vocabulary, answer assigned questions, all in preparation for an assessment that requires them to paraphrase the information they had received with a curriculum in which students are presented with (or develop their own) real-world questions or problems to be solved and direct their own learning in pursuit of a solution (which replaced the traditional assessment), the change would represent disruptive innovation. In place of teacher directed, whole group instruction, a student engaged in project-based learning would access lectures relevant to their project, identify and define vocabulary as confusing words arise, and consult experts and mentors at their own pace as they work toward a solution to their authentic project or problem. In more extreme scenarios, this type of change would occur in a broad perspective; students would not just experience individual classes or courses redesigned in this way, but large chunks of their schedule would incorporate work with authentic projects, where content is integrated and intertwined in multiple subjects, not isolated as typical courses. Student
schedules would allow for the flexibility to dedicate a significant amount of work time to a project, and prioritize the remaining time depending on personalized learning goals or interests.

In the work, *Is K-12 Blended Learning Disruptive? An Introduction to the Theory of Hybrids* (2013), the authors suggested that blended learning in the elementary grades, where students are still in a brick-and-mortar school with a face-to-face teacher, is not disruptive. In contrast, completely virtual classes at the middle and high school level, particularly in instances where enrichment courses, foreign language, etc., would not typically be offered, are considered to be disruptive. Disruptive innovations bring about opportunities for learning that did not exist prior to their creation; they are not merely improvements of programs or practices that are already in place. Drastic redesign in curriculum or scheduling could represent disruption; perhaps students complete their work off-campus, or have a flexible schedule to accommodate a complex project and spend significant time working toward a solution, possibly sacrificing time on other subjects in order to complete the project and revisiting the other courses at a later time.

Christensen, Johnson, & Horn (2008) also coined the term, “sustaining innovation,” which includes new ideas that simply make an old paradigm better, and this type of innovation is most frequently observed in education reform efforts. They described this idea stating, “They serve existing customers according to the original definition of performance--that is, according to the way the market has historically defined what is good” (p. 1). Many schools are
creating hybrid models (Christensen et al., 2008) of schooling, adopting sustaining innovations (like blended learning approaches) that includes both old and new technologies and target their current students; this hybrid approach is not to be mistaken as disruptive innovation.

Smarick (2017) used Kuhn’s theory to describe tug of war debates regarding true disruptive innovations like school choice, the decentralization of schools, and voucher programs—he calls it “the differentiation-and-choice approach” (p. 5). He makes the argument that this approach is, indeed, a disruptive innovation because, “…these programs, properly understood, represent a firm, comprehensive counter argument, not a sotto voce aside to the existing paradigm. They are based on strikingly different approaches to fundamental issues” (p. 5). Smarick makes the argument that such paradigm shifts and disruptive innovations are needed from time to time to address problems our education systems face that our predecessors could not have possibly considered as they were constructing the original paradigm regarding schooling. Kuhn’s original work (as cited in Smarick, 2017) described a problem that brings about a paradigm shift as, “one that ought to be solvable by known rules and procedures (but) resists the reiterated onslaught of the ablest members of the group within whose competence it falls.” For those familiar with education reform at any level, this description certainly fits the bill. Hirsch (2016) highlighted America’s failure to impact student achievement despite education reforms in depth in his work, Why Knowledge Matters.
Understanding what disruptive innovation is and is not is essential in investigating the role that leadership plays in disruptive innovation. In summary, disruptive innovations are those that disrupt current trends and paradigms and cause current researchers and practitioners to question the fundamental beliefs about a field and develop new questions to help solve new problems. It is worth noting that Kuhn made clear in his work the creation of any paradigm that is successfully adopted in a field is a worthwhile feat, even though essentially all paradigms are eventually replaced because its flaws will inevitably be uncovered.

Sustaining innovation has proven problematic in light of the state’s and the nation’s achievement scores throughout the past several decades. There has been virtually no improvement in achievement scores either nationally or statewide; many researchers and accountability measures have highlighted this including author Hirsch (2016), Darling-Hammond (2010) and 2017 NAEP Reports. The pressure and demands on school systems to heighten student achievement is the driving force for redesigning schooling models to include disruptive innovations. What educators have been adding to or the changes they have made in their traditional programs are proving to be inadequate in increasing student outcomes, therefore disruptive innovations are becoming more popular. These drastic redesigns have the potential to increase the impact of reform efforts as practitioners and scholars desperately attempt to invigorate student learning experiences.
Innovation in Public Schools

A specific and increasingly popular example of innovative initiative—and the driving concept for this study—involves the idea of personalized learning. Like many concepts in education, personalized learning has proven difficult to define in literature; there is no agreed upon definition and it exists in schools in a myriad of ways (Groff, 2017). Many organizations and institutions use the term personalized learning to describe various approaches to student learning experiences specific to their schools; however, in a broader sense, the idea of personalized learning is an umbrella term that overlaps with other education concepts. Groff (2017), a researcher for the Center for Curriculum Redesign, reported that though there are variances in specific definitions of personalized learning, “there is significant agreement that it is learner-centered and flexible, responsive to learners’ needs as they progress on mastery-based progressions or competencies” (p. 7). Further, authors and personalized learning practitioners Bray and McClaskey (2013) articulated that a distinguishing feature in personalized learning is that the learner drives his or her own learning, making personalized learning different than other pedagogical strategies like differentiation and individualization. Student choice and student ownership of learning is essential to personalization success, as reported by learning science researchers Bransford, Brown, and Cocking (2000). For the sake of this study, the definition provided by the Bill and Melinda Gates Foundation (2017) was utilized:
Personalized learning seeks to accelerate student learning by tailoring the instructional environment—what, when, how, and where students learn—to address the individual needs, skills, and interests of each student. Students can take ownership of their own learning, while also developing deep personal connection with each other, their teachers, and other adults (1).

This approach to pedagogy and student learning experience is vastly different than traditional schooling approaches, suggesting that understanding educational and organizational change is essential for leaders who attempt to facilitate innovation.

The work of personalized learning can be categorized into two domains: school models and innovative technologies. Both domains are closely tied to empirical research regarding school and organizational change and building a school’s capacity for improvement, and leaders who must understand the relationship between innovation efforts and improvement outcomes. School models include the creation of new policies, new instructional models and structures, change management, and teacher professional development. Innovative technologies include technological tools that are able to support the individualized and adaptive nature of personalized learning and the ability to scale it up to larger phases of implementation (Groff, 2017).

Emerging research suggests learner-centered, personalized instruction fosters higher levels of student achievement (Jobs for the Future & the Council of Chief State School Officers, 2015). Specifically, students who received
personalized learning experiences made greater progress than their demographically-similar peers who did not participate in personalized learning over the course of two school years. Students who were identified as below benchmark caught up to their peers to perform at or above national averages after experiencing personalized learning. These data support the idea that students in the lowest baseline quintile benefit the most from personalized instruction (Pane et al., 2015). Though there is no single, agreed-upon definition of personalized learning, it can be conceptualized with specific practitioner “look fors,” including instruction tailored to students; rich learning experiences that prepare students for college and/or careers; and teacher roles specializing in the design and management of learning (Pane et al., 2015).

In a report funded by The Gates Foundation, researchers defined terms that are frequently used in conversation regarding personalized learning. The authors identified “personalized goals for students” as goals that are specific to individual students and their academic needs as opposed to goals set for homogenous groups of students, and defined “a personal learning plan” to include opportunities to work on school work outside of instructional hours, not limiting the outside work to technology-based instruction (Pane et al., 2015).

The studies involving personalized learning that have been conducted thus far have been carried out in schools with an intentional focus on personalized learning and gathered data from site visits, teacher logs, teacher and student surveys, individual and focus group interviews, and math and reading achievement data compared with control group schools (Pane et al.,
A report from Education Elements (2017) gathered data from schools and districts who were early adopters of personalized learning approaches and had sustained those methods and strategies for two to three years; this report only included academic growth data from NWEA MAP scores in reading and math. This study was based on schools that had embraced personalized learning through a combination of “vision-setting, whole-school redesign, professional development, and implementation services” (Education Elements, 2017, p. 25) suggesting that schools being studied were those receiving a significant amount of support in their efforts to implement personalized learning. There is far less research investigating smaller pockets of personalized learning in specific classrooms, grade levels, or individual schools; most research, thus far, has focused on entire districts that are rethinking their instructional design.

In current reports, despite the fact that evidence is being collected from organizations with supports in place, results suggest that learner-centered, personalized instruction fosters higher levels of student achievement (Jobs for the Future & the Council of Chief State School Officers, 2015). Specifically, students who received personalized learning experiences made greater progress than their demographically-similar peers who did not participate in personalized learning over the course of two school years. Students who were identified as below benchmark caught up to their peers to perform at or above national averages after experiencing personalized learning. These data support the idea that students in the lowest baseline quintile benefit the most from personalized instruction (Pane et al., 2015).
Also supporting the claim that students who are struggling to keep up with their peers benefit from personalized learning approaches, Horn and Staker (2011) reported that the Carpe Diem Collegiate High School in Yuma, Arizona, where 60 percent of students were on free or reduced lunch prices and 48 percent were considered minority, ranked first in its county in student performance in math and reading and ranked among the top ten percent of Arizona charter schools after implementing blended-learning models. Carpe Diem served 280 students in grades 6-12; students rotated through self-paced online learning and face-to-face instruction in traditional classrooms (Horn & Staker, 2011).

Education Elements (2017) found that in Enlarged City School District, a high poverty district in upstate New York, three years into their personalized learning journey, K-12 student learning grew 147 percent in reading and 127 percent in math on the NWEA MAP test; that means on average, their progress over the course of the year exceeded national benchmark by almost 50 percent in reading and almost thirty percent in math. Additionally, this growth represented a 14 percentage point rise in students meeting or exceeding their growth targets in reading and a seventeen percentage point increase meeting or exceeding growth targets in math (Education Elements, 2017). The report also showcased similar growth in Horry County Schools, a suburban/rural district in South Carolina with 144 percent growth in reading and 121 percent growth in math for grade 6-8 students on the NWEA MAP test, and a 140 percent increase in reading and 146 percent increase in math for K-8 students in Uinta County.
School District in Wyoming on the same assessment (Education Elements, 2017). Students in the lower grades showed the most significant gains in achievement after receiving personalized learning instruction, which aligns with the typical trend that there are larger gains overall during the early years of schooling (Pane et al., 2015).

Though the definition of personalized learning is still being configured by researchers and practitioners, the term most certainly refers to instructional practices and methods that take individual learner needs into account. Schools and districts that are implementing personalized learning techniques and models are showing gains in achievement because they are more acutely in tune to individual student academic needs and goal setting instead of focusing on larger, homogenous goals set for groups of students. Leaders of schools who are implementing these innovative practices must be equipped with appropriate skills and understand how to ensure their school has the academic capacity and the collaborative culture to shift their organization and its mindset toward innovative practices.

Summary

This study builds on what scholars already know about school leadership, and extends the concept of leadership to include an emerging trend in education: innovation. There is a need for further research exploring how leaders influence innovation in schools as educators consider changes in traditional school models in response to pressing demands to improve overall student achievement. The lack of academic progress as measured by high-stakes test (like NAEP) both
throughout Kentucky and the United States heightens the urgency for educators and school leaders to positively impact student outcome in new, innovative, and sometimes disruptive ways that have not traditionally been considered in efforts for school reform. School leaders are ultimately responsible for making achievement gains despite previous, unsuccessful reform attempts; therefore many leaders consider innovative approaches to teaching and learning. This study was one of the first to investigate this interaction of leadership and innovation.

The central research question for this study was:

What role do leaders play in the implementation of a district-wide, personalized-learning initiative?

Additional questions included:

Question 1: What is the role of the superintendent in the implementation of a district-wide, personalized-learning initiative?

Question 2: What is the role of principals in the implementation of a district-wide, personalized-learning initiative?

Question 3: What is the role of informal leaders in the implementation of a district-wide, personalized-learning initiative?
CHAPTER III: METHODOLOGY

This study investigated an emerging research topic: how leaders impact innovative, personalized learning initiatives in a public school district. Personalized learning is a topic of increasing interest both for scholars and practitioners, as many schools struggle to find ways educate a diverse, and quick-evolving student demographic to higher levels of proficiency (Goodson, 1983; Grant, 1988; Hargreaves, 1994; McLaughlin & Talbert, 2001). In order for school systems to redesign elements of the education experience for students, leaders’ efforts in those schools must facilitate changes necessary to increase student outcomes. This case study provides both practitioners and scholars with an in depth account of leaders’ roles as a district implemented an innovative school plan aimed at increasing the personalization of learning throughout the school district. This research builds on an abundant body of empirical findings regarding leadership, but also addresses a new concept with very little representation in existing research, describing how these process work in a specific, contextualized situation. This study helps tie together the intersecting concepts of leadership, student learning, and innovative school reform and strengthens the literature on all accounts, for all respective fields.

This chapter includes a synopsis of the research methods used in this study, describing the research design, the school district chosen, instrumentation, procedures of data collection, data analysis, and the issues of trustworthiness and ethics. This research is a phenomenological case study, with
an overall research question investigating role leaders play in the implementation of a district-wide, personalized-learning initiative.

**Research Design**

This study utilized a qualitative research design since it “is intended to explore social phenomena by immersing the investigator in the situation for extended periods. It is intended to produce information on a given setting in its full richness and complexity” (Slavin, 2007, p. 121). Stake (2010) suggested qualitative inquiries revolve around human perception and understanding, and much of the research is devoted to understanding one concept well. In this study, that one concept is the role of leaders during an innovative, district-wide initiative.

This case study presents an in-depth understanding of the specific situations leaders encounter and how they interpret meaning from their actions (Hancock & Algozzine, 2010). It moves the field forward by helping researchers understand the complex phenomenon of leadership (Creswell, 2013) by investigating how leaders impact innovation in this specific school district. The study presents the case so others researchers can examine the study and determine the implications and conclusions for themselves to aid in understanding their own work. Qualitative research provides readers the opportunity to construct their own meaning and implications from the study to further their own understanding of leadership, as qualitative studies are not designed to evaluate a situation, but to understand it (Stake, 2010). This type of research provides practitioners with an opportunity to draw their own conclusions.
and decide for themselves whether or not there are implications relevant to their own unique and individual circumstances.

Considering conceptual frameworks, Stake (1995) wrote, “issues are not simple and clean, but intricately wired to political, social, historical, and especially personal contexts. All these meanings are important in studying cases” (p. 17). Both Yin (2009) and Stake (1995) agreed these contextual complexities are necessary elements in case study research in that they can point toward a conceptual framework to guide the research. Further, Miles and Huberman (1994) argued that a conceptual framework serves numerous purposes, including: (a) identifying who will and will not be included in the study; (b) describing what relationships may be present; and (c) providing the researcher with an opportunity to gather general constructs into categories.

Heck and Hallinger’s model of indirect leadership influence helped conceptualize this particular study. Leithwood, Mascall, and Strauss (2009) wrote that in the space between leaders’ efforts and student learning lie variables and relationships considered to be the “collective responsibility of the research community, as a whole” (p. 625). This challenging responsibility requires researchers to investigate a multitude of cases and situations to better understand what, exactly, those variables and relations are, and what they mean for both categories of researchers and practitioners. In Heck and Hallinger’s (2010) work, the researchers identified evidence that leadership does indirectly impact student outcome, as leaders impact the academic capacity of their schools. This study aimed to identify possible ways leaders impose their indirect
impact on the student learning experience, by way of shaping academic capacity. The current study utilized Heck and Hallinger’s (2010) model, but applied it to a slightly different context—one that involves innovative teaching and learning approaches—to investigate how leaders impact their districts and schools to build a capacity where innovative initiatives can be successful in accelerating student achievement.

**Case Study Methods**

Baxter and Jack (2008) reviewed Yin’s (2009) criteria for case studies, which suggested a case study design be considered under the following circumstances: (a) when the focus of the study is to answer “how” and “why” questions; (b) when one cannot manipulate the behavior of those involved in the study; (c) when one wants to discuss contextual conditions because they are relevant to the phenomenon under study; or (d) the when boundaries are not clear between the phenomenon and the context. Qualitative inquiry is recognized for an emphasis on holistic treatment of phenomenon (Silverman, 2000). This study, based on the unique conditions of a public school district, is considered a holistic single case study (Yin, 2009). This study incorporated Yin’s (2009) criteria, as it attempted to address how leaders impact innovation in schools in a context that is relevant to the leadership phenomenon, as the school is deemed a “District of Innovation.”

Furthermore, Stake (1995) described an instrumental case study as one used to accomplish something other than just understanding a situation. An instrumental case study is one that provides insight into a concept or helps refine
a research theory. The actual case is of secondary concern, as it only aids and supports the understanding of a broader phenomenon: in this case, the role of leadership in school innovation, and how principals impact academic capacity to facilitative innovative initiatives. The case is considered in depth because it enables the research to better understand the external research interest (Stake, 1995) of the interaction between leaders and innovation. Bloomberg and Volpe (2008) and Merriam and Tisdell (2016) noted qualitative research promotes a profound understanding of a phenomenon for the researcher as they learn and document how those who participate in the phenomenon perceive their experiences.

**Role of the Researcher**

The role of the researcher is to accept the responsibility of being the “key instrument” (Slavin, 2007; p. 122) in a qualitative study and utilize the natural setting as the direct source of data. In a qualitative case study, the researcher collaborates closely with participants, enabling those participating in the study to tell their own stories (Crabtree & Miller, 1999). Through participants’ unique accounts, they are able to describe their views of reality, enabling the researcher to better comprehend the participants’ actions (Lather, 1992; Robottom & Hart, 1993). Slavin (2007) suggested qualitative researchers seek to understand the ways their participants make sense of their lives and the events they take part in, referring to this as participant perspective. Slavin continued, noting “by learning the perspective of the participants’, qualitative research illuminates the inner dynamics of the situation—dynamics that are often invisible to the outsider (p.
In addition to this responsibility, the researcher must ensure the data collection and analysis processes are rigorous and maintain trustworthiness. This study used purposive and strategic (Miles et al., 2014) sampling for the fieldwork outside the researcher’s home school district. The district studied was selected because it was approved as a District of Innovation by the Kentucky Department of Education and it was within a reasonable traveling distance for the researcher. Studying a district that the researcher is not immersed in, for daily duties and work routines, strengthens the authenticity of the study and helps manage any biased inclinations.

The researcher’s background and experiences drive the interest in this particular study and in the empirical research related to the topic. Being a teacher in a similar, rural district in Kentucky, and encountering immense resistance from leaders in adopting innovative classroom practices, the researcher was interested in this particular situation. The researcher experienced many varying degrees of innovation through work experiences across the state, so these diverse experiences were drivers for better understanding leadership as it influenced student outcomes. Situated in the practitioner’s realm of working to adopt innovative classroom and instructional strategies, and also studying the empirical work of leadership, the researcher was well positioned to undertake this study with a broad perspective of understanding. This reflexivity (Creswell, 2013) aides in identifying the biases and prior beliefs the researcher brought into study (Creswell, 2013).
The Case

A significant element of this study was the distinction of this school district as a “District of Innovation” by the Kentucky Department of Education. The Kentucky Department of Education has published a briefing regarding this program, stating:

KRS 156.108 and 160.107 (House Bill 37, enacted 2012) provide Kentucky public school districts the opportunity to apply to the Kentucky Board of Education (KBE) to be exempt from certain administrative regulations and statutory provisions, as well as waiving local board policy, in an effort to improve the learning of students. By re-thinking what a school might look like, districts will be able to redesign student learning in an effort to engage and motivate more students and increase the numbers of those who are college- and career-ready (KDE website, 2018).

Greyford County School District (denoted with a pseudonym throughout to protect the anonymity of the district and its employees) is a small, rural district in South Central Kentucky, with approximately 1,659 students enrolled in three schools in preschool through grade 12 (School Report Card, 2016-2017). The district is primarily comprised of white students (95 percent) with very little diversity (1 percent African American; 3 percent Hispanic). In this district, 27.4 percent of students attend college after graduation, as compared to the 55.8 percent of students across the state. Thirty-five percent of students report entering the workforce directly after graduation, as compared to the 22.2 percent statewide. At the only elementary school in the district (which houses preschool
through grade 5) 709 students were enrolled in the 2016-2017 academic year. Greyford County Elementary School is considered a Title 1 Eligible School, meaning that at least 40 percent of enrolled students come from low income families (U.S. Department of Education, 2015). According to the School Report Card (2016-2017), data for free and reduced eligibility were not reported for Greyford Elementary School. At Greyford Middle School, 350 students were enrolled in grades six through 8 for the 2016-2017 academic year; this school is also considered a Title 1 Eligible School, where 70.9 percent of middle school students qualify for free or reduced lunch. Greyford County High School, like the other district schools, is considered a Title 1 Eligible School, and enrolled 492 students in 2016-2017, where 69.9 percent of those students were eligible for free or reduced lunch.

**Population and Sample**

Slavin (2007) defined a case study as “an evaluation of a single program or setting by a third party” (p. 150). Yin (2009) and Stake (2010) suggested binding a case study to ensure the study remains reasonable in scope. This study was bound by time and place (Creswell, 2013) and can be considered a microresearch study (Stake 2010)-- one that investigates local neighborhoods and small-scale programs. The school district in this study was approved as a “District of Innovation” by the Kentucky Department of Education prior to the onset of the study. The study began during the first year of implementation. The school district chosen for the study is a small, rural district with one elementary school, one middle school, and one high school. The individual participants
interviewed in this study included the superintendent, and the principal at each of the three schools (see Table 1). Unfortunately, the high school principal withdrew from the study after the first interview, but the superintendent kept the researcher apprised of activities and happenings at the high school. Furthermore, teacher focus groups were purposively selected by the principal of the school to represent a population of teachers who were involved and engaged in the innovative initiatives in each respective school. The duration of the study was 2 years, while the interviews were conducted over a duration of 18 months. All interactions between the researcher and the participant were approved by the superintendent of the district.

**Research Questions**

The central research question for this study was:

What role do leaders play in the implementation of a district-wide, personalized-learning initiative?

Additional questions included:

Question 1: What is the role of the superintendent in the implementation of a district-wide, personalized-learning initiative?

Question 2: What is the role of principals in the implementation of a district-wide, personalized-learning initiative?

Question 3: What is the role of informal leaders in the implementation of a district-wide, personalized-learning initiative?
Table 1

**Participant Demographic Information**

<table>
<thead>
<tr>
<th>Participant</th>
<th>Organization</th>
<th>Interview Schedule</th>
<th>Demographic Notes</th>
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</thead>
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<td>Superintendent</td>
<td>Greyford County School District</td>
<td>initial adoption, middle implementation, culminating period</td>
<td>male</td>
</tr>
<tr>
<td>Principal 1</td>
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<td>female</td>
</tr>
<tr>
<td>Principal 2</td>
<td>Greyford County Middle School</td>
<td>initial adoption, middle implementation, culminating period</td>
<td>male</td>
</tr>
<tr>
<td>Principal 3</td>
<td>Greyford County Elementary School</td>
<td>initial adoption, middle implementation, culminating period</td>
<td>male</td>
</tr>
</tbody>
</table>

**Procedures**

The researcher submitted the study proposal to the Institutional Review Board of Western Kentucky University (IRB) preceding any interaction with potential participants. Approval of the Board recognized a low risk research design and proposal. The researcher completed the Collaborative IRB Training Initiative (CITI) as part of previous course requirements in the doctoral program at Western Kentucky University.
Data for this study were extensive and drew from three main sources: open-ended interviews, teacher focus group interviews, observation notes, and artifact review.

**Interviews**

Krefting (1991) suggested researchers in a qualitative case study should plan for a prolonged or extensive exposure to the phenomenon under study in order to develop appropriate and trustworthy rapport with participants, allowing for multiple perspectives to be collected and analyzed, and reducing the potential for social desirability responses in interviews. In this study, interviews were conducted over a period of 18 months, during the initial adoption phase, middle implementation phase, and the culminating period of implementation of the innovative, personalized learning initiatives (as outlined in the District of Innovation plan). Interviews were conducted during each implementation phase, resulting in 1 interview per participant during each phase, for a total of three interviews for each participant. Each interview lasted approximately 30 minutes. For the initial interviews, the researcher traveled to the school district to conduct the interviews face-to-face; once rapport was established, the interviews were conducted via telephone. An interview protocol (see Appendix) was used (Creswell, 2009; Seidman, 2006) and the researcher adapted the interview protocol and revised front-end instrumentation (Miles et al., 2014) in response to each successive interview. The interview questions avoided asking leading questions, allowed the participant to add freely to the discussion, probed for depth as necessary, and remained open-ended for opportunities to explore topics
in greater detail (Creswell, 2013). Field notes (Slavin, 2007) were collected after each interview, and each session was double-recorded with two audio recording devices and were later transcribed.

**Focus Groups**

Focus group interviews, with participants purposively selected by their principal for their engagement in innovation efforts, were conducted on site at each individual school, and in a face-to-face setting. The principal of each school was excluded from the focus group interviews to elicit honest discourse from the participants and encourage a less-threatening environment. The interviews were conducted as a round-table discussion and the researcher both questioned participants and encouraged them to build on each others’ responses. The interviews were double recorded with two separate audio recording devices and later transcribed. The focus groups functioned as a supplementary method of data collection to the primary interviews, but allowed for data collection from broader perspectives (Morgan, 1997). The focus group interviews allowed the researcher to gain insight on the research questions from the perspective of teachers, and allowed for triangulation of the teacher data with that of the leaders. This allowed the teachers to report on their own behavior, as well as the behavior of their leaders. This enhanced the depth of the study, as the researcher was not forced to rely solely on the data from leaders.

**Observation Notes**

The researcher also observed district-wide administrator meetings, collecting field notes throughout the meeting. As the meetings progressed and
participants interacted with each other and their leaders, the researcher collected observation notes with special attention during instances where participants discussed the District of Innovation plan and the school improvement plans, as conversations included intentions of implementing innovative initiatives. Additionally, after the completion of each interview and focus group session, the researcher recorded thoughts, impressions, and connections to empirical data.

**Artifact Review**

The researcher collected artifacts and documents, including the District of Innovation application, school improvement plans, schedules of professional development, board meeting minutes, newspaper articles, and samples of parent communication to increase the richness of the study and to confirm interview and focus group data. Many items were provided, by request of the researcher, directly from the superintendent; other items were located on the district website. The triangulation of various data forms strengthened the trustworthiness and rigor of this case study (Rossman & Rallis, 2012).

**Trustworthiness**

In qualitative research, trustworthiness is the extent to which a reader experiences the conclusions of a research study as believable and authentic for subjects in the context being portrayed (Lincoln & Guba, 1985). Rallis and Rossman (2012) elaborated on trustworthiness, writing it is “composed of both competent practice and ethical considerations for the participants” (p. 73). Furthermore, James (2008), highlighted the emergence of authenticity as a significant component of trustworthiness. James suggested researchers should
also consider whether or not research is worthwhile and consider its impact on members of the culture or community being studied. This authenticity component of trustworthiness helps researchers ensure studies have some benefit to the greater society. The prominence of personalized learning in education innovation highlights the authenticity of this particular study.

An earlier work from Merriam (1991) promoted eight strategies to ensure trustworthiness (a) triangulation; (b) member checks; (c) peer review/examination; (d) researcher's position or reflexivity; (e) adequate engagement in data collection; (f) maximum variation; (g) audit trail; and (h) rich, thick descriptions. These suggestions reinforced Lincoln and Guba’s (1985) work promoting qualitative credibility, transferability, dependability, and confirmability, suggesting researchers should take part in peer debriefing, prolonged engagement in the project, persistent observation, audit trails, and member checks. The general nature of case study research helps triangulate data due to the use of multiple data sources, increasing the study's credibility (Patton, 1990; Yin, 2009). Khafl and Breitmayer (1989) contended that the collection and comparison of data heightens the quality of a study based on empirical ideas of convergence and confirmation. The researcher of this study engaged in many of these activities to increase the trustworthiness of the research study. For example, to increase the trustworthiness of the study, the researcher documented the steps of the project for an audit trail. The researcher also engaged in frequent peer review and examination throughout the duration of the study, specifically with the dissertation chairperson. Additionally, the researcher
made transcripts available to participants for review before the coding process began, and was engaged in dialogue with the participants for a duration of two years, interviewing leaders on multiple occasions. Rallis and Rossman (2012) define trustworthiness as a combination of competent practice and ethical considerations for participants. Therefore, in conjunction with behaviors and strategies that promote trustworthiness, the researcher practiced strong ethics throughout the study, obtaining IRB documents, keeping adequate records, and maintaining confidentiality. Additionally, the rapport built between the researcher and participants increased participant confidence and open, clear communication.

Data Analysis

Slavin (2007) asserted that qualitative research forces the researcher to approach the world with an assumption that nothing is trivial, that each piece of data has the potential of being a clue that might unlock a more holistic understanding of what is being studied. Furthermore, Miles et al., (2014) highlighted their perspective of data analysis, writing, “…we believe that coding is deep reflection about, and thus, deep analysis and interpretation of the data’s meaning” (p. 72). The researcher approached data analysis with this perspective, and utilized a structural coding method (Guess et al., 2012; MacQueen et al., 2008; Namely et al., 2008; Saldaña, 2016) for this research project, as it is suggested to be highly appropriate for interview transcripts (Guess et al., 2012; MacQueen et al., 2008; Namely et al., 2008). Saldaña (2016) defined coding as “a research-generated construct that symbolizes and thus attributes interpreted
meaning to each individual datum for later purposes of pattern detection, categorization, theory building, and other analytical processes” (p. 4). It is important to note, researchers do not seek out data or evidence to prove or disprove an idea believed to be true prior to the study, but rather to build abstractions over time as data and findings are analyzed and organized (Slavin, 2007).

In terms of structural coding, Namely et al. (2008) described it as a process of labeling and indexing, enabling the researcher to access groups of data likely to be related and similar from a larger data set. This method “applies a content-based or conceptual phrase representing a topic of inquiry to a segment of data that relates to a specific research question used to frame the interview (MacQueen et al., 2008, p.124). The process of coding continues as similarly coded segments are clustered together (Miles et al., 2014) for more detailed coding and additional analysis (Saldaña, 2016).

In this study, First Cycle and Second Cycle (Miles et al., 2014) coding were utilized, as the First Cycle initially coded and categorized the data corpus so the researcher could initially examine clusters of data for similarities, differences, and relationships (Saldaña, 2016). Second Cycle coding was utilized to examine more in depth relationships in the data to further analyze possible themes. Stake (2010) suggested coding can be structured by the research question, a concept map, or by the clusters of similar data emerging in analysis. In this study, the researcher structured coding first by the research question, while keeping Heck and Hallinger’s (2010) model in mind, and continued by
gathering and analyzing clusters of data that appeared to be similar in order to identify themes in the data corpus.

The artifact review portion of this study was conducted with a content analysis of all artifacts gathered, addressing the question: What were the roles of leaders during the district-wide, innovative initiative? The analysis was conducted using all artifacts gathered during the study, and patterns and themes were gathered from those documents to further highlight the role leaders played in this district-wide, personalized learning initiative. This document review enhanced the researcher’s “thick description” (Slavin, 2007, p. 121) of the findings of this study.

**Limitations**

Slavin (2007) made very clear that generalizability is an issue in case study research, as it is in all qualitative research approaches. This case study represents an in depth investigation into a very small school district, with a small sample. The district may not be representative of all other school districts across the state, and broader regions, nor the leaders who are responsible for them. Miles et al. (2014) wrote, “... the apparent simplicity of qualitative data masks a good deal of complexity, requiring plenty of care and self-awareness on the part of the researcher” (p. 11). Stake (2010) highlighted the subjective nature of qualitative research, a component that some naysayers use to demote this research approach. Creswell (2013) and Denzin (1989) asserted that people shape their realities by the details they choose to remember, potentially having an impact on how they respond to research questions and probes. However, this subjectivity does not represent a fatal element of qualitative research, but is
perceived by researchers as an essential element of understanding human behavior in specific contexts (Stake, 2010).

**Transferability**

The researcher acknowledges the diversity among school districts and between participants. It is the intent of the researcher to promote this study for other scholars and practitioners to draw their own conclusions and determine the transferability of the findings as it applies to their unique and specific situations. Methodologists tend to suggest that any transfer of a study's findings to other contexts is the reader's responsibility, not the researcher's responsibility (Erickson, 1986). Miles et al. (2014) drew on the experience of many scholars, as they reported: “The generalizability of the case study has been a contention issues, ranging from the researcher's analytic ability to find levels of universality in the case (Spradley, 1979, 1980) to frank admission that complex and site-specific contexts problematize the ability to construct theory and, thus, generalization (Clarke, 2005). However, readers may find similarities to their own contexts, which will enhance the transferability of findings for specific individuals or settings.
CHAPTER IV: FINDINGS

The superintendent, principals from the high school, middle school, and elementary school, as well as certified middle and elementary teacher focus groups from a Southeastern Kentucky school district (denoted with the pseudonym "Greyford County Schools" throughout) served as research participants for this case study (names of all participants cited in the study are presented as pseudonyms). At the beginning of this study, the district was approved as a District of Innovation, as recognized by the Kentucky Department of Education (KDE). This approval granted waivers for the district related to teacher certification, attendance and scheduling, and assessment accountability. Additionally, the district was approved to participate in a KDE-sponsored program involving non-traditional instructional days (NTID), wherein students still accessed content online and completed assignments on days that school was cancelled due to weather, so no additional days were added to the school calendar.

In the District of Innovation application and plan, the school system articulated intentions to personalize learning, experimenting with new instructional delivery methods, and alternate assessment opportunities. Specifically, standards-based grading and content mastery were detailed in the plan. The application stated:

… a number of staff members have requested exploration of standards based grading at different grade levels. Staff members have expressed an
interest in evaluating students to a level of mastery on individual learning standards, not just averaging a percentage from a compilation of assignments and assessments. The concept of standards based grading is strengthened by incorporating personalized learning elements so that the class and/or group does not have to move ahead as one but standards can be attained at an individual level and at an individual pace.

As discovered in the document review, the innovation plan detailed the elementary and middle school plans to implement competency based credit, expanded learning opportunities, and innovative learning environments. These three components included ideas of self-paced learning, accelerated learning, flexible scheduling, online content, and individual learning plans.

The methods utilized to collect data for this study included: (a) structured interviews with the superintendent, high school principal, middle school principal, and elementary school principal; (b) focus group interviews with middle and elementary school teachers; (c) relevant document reviews, including analysis of the District of Innovation application, school and district improvement plans, news articles and interviews, principal messages to the community, and board meeting minutes. Additionally, the researcher observed an administrator meeting, a board meeting, and a meeting with a KDE District of Innovation Coach. The researcher recorded and transcribed all interviews and observation notes and used structural coding to analyze the data relative to the following research question: What role do leaders play in the implementation of a district-wide, personalized-learning initiative?
Additional questions included:

Question 1: What is the role of the superintendent in the implementation of a district-wide, personalized-learning initiative?

Question 2: What is the role of principals in the implementation of a district-wide, personalized-learning initiative?

Question 3: What is the role of informal leaders in the implementation of a district-wide, personalized-learning initiative?

**The Superintendent Role (RQ1)**

The first research question in this study examined the role of the superintendent in a district-wide, personalized learning initiative. In this case, the personalized learning initiative refers to the district’s approval to become a District of Innovation, recognized by the Kentucky Department of Education, and implementation of its innovation plan. The interview protocol included several open-ended prompts used in three separate interviews at various times during the implementation of the district-wide initiative:

(a) Describe the current status of the personalized-learning initiative.

(b) Describe your current involvement in the initiative. Describe your current role.

(c) Describe the successes experienced so far in the project.

(d) Describe the key challenges encountered so far in implementing the project.

(e) How do you feel the process is going? What are the next steps for the initiative?
Table 2

*Interview Coding System*

<table>
<thead>
<tr>
<th>Role</th>
<th>Name</th>
<th>Interview Code</th>
</tr>
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<tbody>
<tr>
<td>Supt.</td>
<td>Morris Mumford</td>
<td>S-MM-I1 (interview 1)</td>
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<td>S-MM-I3 (interview 3)</td>
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<td></td>
<td></td>
<td>S-MM-AM (admin meeting)</td>
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<tr>
<td>Elem. Principal</td>
<td>Demetri Lippolis</td>
<td>EP-DL-I1 (interview 1)</td>
</tr>
<tr>
<td></td>
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<td>EP-DL-I3 (interview 3)</td>
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<tr>
<td></td>
<td></td>
<td>EP-DL-AM (admin meeting)</td>
</tr>
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<td>Middle Principal</td>
<td>Dane Lakin</td>
<td>MP-DL-I1 (interview 1)</td>
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<td>Morganica Brookes</td>
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<td>Elem. Math</td>
<td>Devin Holzer</td>
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<td>Middle Language Arts</td>
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<td>MT-RR-TFG (teacher focus group)</td>
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(f) (Year-long reflection question for the last interview.) Describe your perception of the project. How do you feel the process went? What are the next steps going into the next year?

After analysis of the superintendent interview data, two themes emerged describing the superintendent’s role in promoting the district of innovation initiative. Data from the three superintendent interview transcripts, the seven principal interviews, and from the artifact review describing the superintendent’s role in promoting the district of innovation initiative confirmed these themes. Many subthemes were parsed out in even more specific terms.

Theme 1: The superintendent was the catalyst for district-wide innovation. Subthemes included the following:

a. The superintendent served as the champion of change, establishing a sense of urgency for changing instructional practices.

b. The superintendent articulated a vision of what the innovation should look like.

c. The superintendent expressed his desire to see that innovative practices should become normalized across the district.

Theme 2: The superintendent fostered a culture of innovation. Subthemes included the following:

a. The superintendent demonstrated a sensitivity to the personal and professional challenges innovation requires, which encouraged risk-taking.

b. The superintendent shared decision-making about how the innovation would actually take shape with principals and informal leaders.
c. The superintendent facilitated communication about the innovation with internal and external stakeholders.

Superintendent Theme 1: The superintendent as a catalyst for change.

Superintendent Morris Mumford’s vision was key to Greyford County Schools’ District of Innovation initiative. The superintendent was the catalyst for district-wide innovation, serving as a champion of change and articulating a vision of what innovation should look like and exhibited a desire that innovative practices become the norm. Throughout implementation, the superintendent voiced his own determination and drive to see the school district transform into a place where students are truly working at their individual readiness levels toward preparedness for their next step in life after they graduate—whether that means entering into the workforce, pursuing traditional college, or transitioning to a trade school.

Transcript findings and artifact reviews indicated the superintendent was the individual who initially presented district leaders with the idea of becoming a District of Innovation, and solicited their support to pursue the endeavor. Evidence suggests that he was passionate about the goal of becoming a District of Innovation and reaching students in a powerful way. His work included articulating this vision to district level leaders and developing actionable steps to realize the vision. It is clear, through this evidence, that he expected the transformation to be long-lasting.

Superintendent sub-theme 1a: A champion of change, establishing a sense of urgency. Dr. Mumford’s passion for this district-wide transformation
permeated through the organization as he advocated for the personalized learning initiative. He had the widest perspective of the overall transformation and his approval of the shift in learning was evident to all in the district. He also was clear about his urgency to change practices and procedures in the district that were lackluster in producing desired outcomes of student achievement.

From the very beginning of this project, Dr. Mumford was up front about his role as superintendent, stating, “I don’t want to call myself the driving force because that isn’t a fair representation, but I just keep the energy in trying to make sure we get the right people pushing the right buttons, and helping with the work” (S-MM-I3). The high school principal concurred, expressly stating, “He [Dr. Mumford] is the eagle that overlooks everything” (HP-MB-I1).

Middle school principal, Mr. Lakin, reflected on the initial phases of the District of Innovation process:

There were some people on the [DOI] committee that felt like, “Let’s just wait for a year, study it, follow the trend, see where it goes.” And he [Dr. Mumford] just said, “We can’t afford to wait. Now is the time.” And so we moved on it immediately. But he was like, “No. We can’t wait. This is the way of the future.” (MP-DP-I1)

The high school principal described the superintendent’s role in the initiative, “He has to be open-minded, and unbiased, and [ask] ‘What’s best for the student.’ If you don’t have the point of the ship directed in the right way, cutting through the wind, the ship’s going to wreck, it’s going to sink. And he is that.” (HP-MB-I1)
In his efforts to champion changes in the district, Dr. Mumford led out-of-district site visits, where he planned for principals and led teachers to witness, first-hand, some of the ideas that the most innovative schools in the country were implementing. The superintendent himself spoke of these experiences in his interviews with the researcher, describing the impact it had on individuals:

One of the teachers with us, [an] eighth grade math teacher, just got on fire from seeing it. . . . The day we walked out of Piedmont, I thought she was going to cry. Her emotion was that--and she’s an excellent teacher--she said, “I thought I was doing everything I could for my kids. And today I’ve realized there’s so much more I could be doing.” And she said, “I cannot, not do this. I’ve got to.” And she literally started the next day. Not because it was a shiny new toy. But because she saw the intrinsic value of what was taking place, and she was not going to let her kids go one more day without having that opportunity. (S-MM-I1)

Dr. Mumford articulated a vision of what the initiative could look like, and also created opportunities for teachers and leaders to experience significant mindset shifts, ultimately promoting the innovative efforts. Ms. Brookes, the high school principal, made a statement that resonated with the experience the superintendent shared, simply stating, “He enables us to fly” (HP-MB-I1).

Mr. Lakin described Dr. Mumford’s role as being similar to a classroom teacher. He shared:

I think all of his principals and his head teachers and his directors, even . . . are almost like a classroom of kids. Everybody’s different. Everybody
responds differently to different stimulus. You may need this and respond to it differently or better than your neighbor would. And his job is to do the best he can to meet the individual needs of the people that are implementing the program. And support them. (MP-DL-I1)

This suggests Dr. Mumford had to draw on his broad perspective of how the organization functions as a system, and involved individuals based on their needs and readiness levels to initiate the personalized learning transformation and advocate for the shift. The artifact review revealed evidence of this urgency, as school and district improvement plans articulated plans of implementation during the first year of the initiative.

**Superintendent sub-theme 1b: Articulated a vision.** Interview data suggested the principals in the district also viewed Superintendent Mumford as the champion of change, driving the innovation forward, providing guidance about the direction the transformation could take. Mr. Lippolis explained, “He’s a big proponent of it [personalized learning]. It’s just that he’s a believer in it. He’s made a lot of us believe in it. What he’s done is helped us go to other schools and see for ourselves some things the other schools are doing with it” (EP-DL-I1). Mr. Lakin, the middle school principal, expressed the same sentiment, “Dr. Mumford wanted to move in this direction because he is a proponent of technology, and more than anything, on the days that we’re not in session [because of inclement weather], he wanted to see learning continue” (MP-DL-I1). The middle school principal continued, in another interview, stating, “He [Dr. Mumford] said, ‘I envision everything in the future being similar to what we’re
doing now, whether it be in a middle school classroom, a college classroom. It’s going to be some kind of learning management system like this” (MP-DL-I1).

Furthermore, the superintendent commented on teachers and leaders taking the opportunity to be innovative in the school and in the classroom, stating, “Now they’re given the opportunity to [try innovative methods of teaching], and there’s a degree of responsibility for doing that as well. I think some of our students are welcoming that whether they [teachers and leaders] even know they are or not” (S-MM-I2).

In reflecting on the success of the district at the culmination of this case study, he named “mindset” as one of the biggest successes of the initiative. Dr. Mumford explained, “The number one thing; I don’t know how you measure it, is mindset. Our middle school has gone the farthest and done the most . . . and the people who were very reluctant . . . some of the people who were apprehensive have ended up being some of the now better proponents of it [personalized learning]” (S-MM-I3). He continued to say, “They will not only say that their initial apprehension was probably mistaken, but also they feel that they are better teachers now because of what they’re doing” (S-MM-I3). As time progressed, and the superintendent reflected on his role with the initiative, he stated, “Well, I’m focused on the big picture . . . ” (S-MM-I2). And when asked about his specific role, he explained, “I started to say coach, but in baseball, you’ve got the coach and you’ve got the general manager. So it’s probably kind of like the general manager role of trying to hold it together” (S-MM-I2).
The superintendent set an expectation that those involved in this initiative were responsible for making changes in the way the district conducted business. These expectations were articulated in the innovation plan, as uncovered by the artifact review, therefore strengthening this theme. This expectation held individuals accountable for enacting change, and also allowed for individuals to experience the uncertainty that accompanied the change. Dr. Mumford facilitated discussion and personal shifts in mindsets to overcome the fear that came with this innovation, a hurdle that exists in many organizations seeking change. This element of the superintendent’s role was instrumental in the successful deployment of the district’s innovation initiative.

**Superintendent sub-theme 1c: Normalized innovation.** Dr. Mumford shared with the researcher, “My ultimate goal is it ends up being the way we do business” (S-MM-I1). He was speaking in reference to utilizing technology in the classroom and delivering personalized instruction to all students. In another interview, when asked about the innovation of using technology to personalize learning, the superintendent expressed, “As I said, we've never made a big shebang out of this . . . when they [students and teachers] finished at three, they realized what they'd accomplished. And so that's my ultimate goal. You know, when we think it's just a normal day, but you're really doing something special. Then I think you achieved what you set out for” (S-MM-I1).

In a later interview, Dr. Mumford expressed, “day in, day out, instead of being some kind of special this or special that . . . they [students and teachers]
showed up to school and they knew that's how [accessing personalized instruction via technology] school was going to go that day” (S-MM-I1).

During one of the last interviews, as he was articulating a new project for the upcoming school year, Dr. Mumford explained, “Those kids pretty much don’t have a schedule. They will report to the library for their core classes. Their English, science, math, and social studies will be online digital curriculum, and they will have a group of four teachers who are responsible for them. . . . Ultimately, I mean, my goal is that the whole school looks like that” (S-MM-I3).

An essential component of Dr. Mumford’s role in this initiative was his attempt to make innovation an everyday occurrence in his schools. He alluded to this, as he made remarks suggesting that only when innovation becomes the norm has the district really achieved what he had intended.

**Superintendent Theme 2: Fostered a culture of innovation.**

In combination with being the driving force and champion of the District of Innovation initiative, Dr. Mumford also worked to foster a culture of innovation by demonstrating sensitivity to personal and professional change of those in his organization, by sharing decision making with others, and by facilitating communication with internal and external stakeholders. As the implementation process progressed, the superintendent demonstrated patience and understanding in handling individuals who were reluctant to adopt innovative practices (personalized instruction, instructional technology, etc.), allowing them time and space to adjust to newly-implemented expectations. From the beginning stages of the initiative and throughout the implementation process, Dr. Mumford
was inclusive in decision making, involving school level leaders and drawing on their input as decisions were made about the innovation plan and its execution. As a component of that shared decision making, the superintendent facilitated communication with and among internal stakeholders (principals, curriculum specialists, technology experts, teacher leaders) as well as external stakeholders (parents, community members, experienced school districts, education consultants, business entrepreneurs) in regards to the innovations specified in the district-wide initiatives.

**Superintendent sub-theme 2a: Sensitivity to change.** Throughout the duration of this study, Dr. Mumford remained realistic in terms of the challenges that naturally occur when considering significant change in a school district. When asked to describe some of the challenges occurring throughout the District of Innovation process, he explained:

> I think it's just the age old concept of anytime you try and do something a little different, you know, people talk about change being difficult and this and that. I think that, in a nutshell, you know, just trying to get folks to open up and see and understand times are changing. Things are different. And what we're doing is not working, and we're responsible for doing everything we can to make things work for every child. (S-MM-I1)

Analysis of interviews and documents show how the superintendent was intensely involved in modeling and creating a culture of innovation within schools and throughout the community, including being sensitive to the personal and professional impact the changes had on individuals. Dr. Mumford was sensitive
to the struggle that many leaders and educators were facing, and encouraged their risk-taking and experimentation. In a briefing on the progress of the initiative with the researcher, the superintendent explained, “We’re still struggling just a little bit with the concept [of personalized learning] and what that means and how does that play itself out, but I think that’s just part of the process” (S-MM-I2). He continued, “I’ve been a little reluctant to have much direct presence in the classroom as it pertains to this. I’ve really gone back and forth on that. Part of me, I want to be there, I want to see it. . . . You know my involvement and passion for this. At the same time, I understand some teachers aren’t necessarily crazy about the whole idea” (S-MM-I2).

In the same briefing, the superintendent stated, “Some teachers, regardless of how it’s coming through . . . they think it’s a top-down [mandate], and we’re doing this because the superintendent wants it done, and I’m sensitive to that. I think the more I have a direct-presence in the classroom, is that fostering or cementing in that thought process?” (S-MM-I2).

Additionally, the superintendent actively promoted a culture where individuals could take risks, explore ideas, and problem-solve as challenges arose, directly stating, “I anticipated not necessarily every specific challenge that we’ve had, but . . . I keep telling our folks that we knew this was not going to be seamless and without effort, and without problems/issues” (S-MM-I2). In explaining some of the struggles he was confronting, the superintendent expressed, “We’re trying to work through that mind shift, without totally turning people off, [it] is still something we’re working through” (S-MM-I2).
**Superintendent sub-theme 2b: Shared decision-making.** Not only did Dr. Mumford create a culture in which uncertainty was tolerated and risk-taking was encouraged, but he also enlisted the support and input from many individuals as the implementation of the initiative unfolded. The superintendent modeled shared decision-making and called on many staff members in the district to have a hand in the specifics of the district-wide innovation plan.

Mr. Lakin recounted the events from the very beginning of the District of Innovation process, sharing:

> We went through the application process. As far back as I can remember, when we first got started . . . Dr. Mumford formed a committee--principals, lead teachers--and he asked us to look at application from other districts. . . So we looked at all the applications and say what had to be included.

> Then, we started work on our own. (MP-DL-I1)

Findings suggested a sense of shared decision making from the very beginning of the application process, as evidenced by the initial formation of a committee.

Dr. Mumford suggested that he was not always entirely comfortable as the chief driver of change. He stated:

> I've gone back and forth . . . about how much direct presence I should have and how much I should just be hands off and work almost behind the scenes, if you will, with the principals and the curriculum leaders and then let them lead this. Because the day's going to be when I'm gone away, and those will be the people that's going to lead this and make it continue on and be successful. (S-MM-I2)
Evidence of this growing innovative culture emerged from transcript data, as the superintendent voiced his assessment of the initiative, sharing:

I’m just encouraged, as I’m seeing people work through it [grading issues] of their own volition, really, without really prompting. I’ve started saying no pressure from this office. . . . They’ve really taken this on and are beginning to make it their own. Maybe it’s moving a tick slower than I would prefer, but it’s got its own life and its own progression. I’m satisfied. (S-MM-I3)

Findings such as these suggested individual leaders and teachers were taking ownership of their work.

Interview data indicated that although the superintendent did initiate a vision for the district to transform into a KDE-acclaimed District of Innovation, the process to achieve that and the intense work involved in realizing that vision was very much a collaborative effort. Interview transcripts highlighted countless examples of shared decision making, revolving around discussion of various topics, inclusive of all parties involved. The artifact review provided more evidence of this shared decision making, as the District of Innovation application included plans to create a committee and meet regularly to discuss and make decisions that would impact the entire school system throughout the entire duration of the personalized learning transformation. Board meeting and administrator meeting minutes confirmed the meetings.

**Superintendent sub-theme 2c: Facilitated communication.** An essential role Dr. Mumford assumed was one of facilitating communication with
and among district leaders. The artifact review uncovered a significant amount of evidence of communication between leaders and the superintendent in the form of administrator meetings held at least once each month, sometimes having a special-called meeting as needed.

During an administrator meeting, the superintendent discussed the process of transitioning from traditional textbook curriculum to online curriculum and told his principals and other district administrators, “I think during all this process, maybe that’s just a part of it, where we just throw open the whiteboard and not only talk about what products and platforms we are going to use, but how are we going to get there” (S-MM-AM). This act of modeling a culture that fosters innovative thinking, collaboration, and brainstorming supports the idea that the superintendent is an essential element to creating an open-minded culture across the district.

The principals in the district spoke of open communication in their interviews, implying the connection that open and honest dialogue with their superintendent helped create an innovative culture among the leaders, and had an indirect impact on the culture of each of the schools, individually. The high school principal informed the researcher:

He knows what’s going on. I came to him with a problem this morning. I said, “You see it all. Can you help me in some way?” And so, he’s trying to connect an elementary with a high school piece that maybe we could work together on making this problem go away. (HP-MB-I1)

The middle school principal spoke of similar issues on various occasions, stating:
We [the leadership team] started talking about grading and what we need to do. . . . And we’re like, “You know, I can’t answer all these things, let’s get Dr. Mumford involved.” So I texted him right at the moment. . . . So he came on his own and showed up yesterday. . . . And so we sat, I told him what my issues were. . . . I asked him if he’d be willing to meet. He said he would. So he’s coming to my leadership team meeting, and listening to us. My teachers get frustrated when I don’t have the answer, and if I don’t have the answer I go to him. So for him to come that quick, and me to get that support, I just pass it right along. So it eases the tension of some of the teachers. (MP-DL-I2)

As the superintendent modeled this type of open communication and fostered a culture that became more comfortable with the unknown elements involved in such an innovation initiative, he enabled other leaders to emulate that culture in their own buildings, with their staff.

As the superintendent reflected on some of the struggles of accelerating students at their pace, he expressed:

We’re grappling with that. That’s a good question. The thing I think is a positive is the fact that they [principals and teachers] are grappling with it. You know, they just haven’t walked away saying, “Well, we can’t do that, or it’s too big of a challenge.” They are having those discussions. (S-MM-I3)

Being part of these difficult discussions with teachers and principals promoted a sense of shared decision making; when it came time to make a final decision on
changes in school procedures and policies, the superintendent had elicited input from various stakeholders.

Dr. Mumford also referenced his communication with the district Personalized Learning Coach, "Ms. Lowe, having a regular ongoing communication with her. . . . Ongoing communication with the principals" (S-MM-I2). A specific example was highlighted during an administrator meeting, as the superintendent questioned the variety of programs and software being used throughout the district. The researcher captured the conversation:

We need to come to some agreement here. Now, I don’t know if all three schools have to use the same thing. I think to the extent possible . . . that’s nice. But I think that needs to be part of the process. What are we going to do with the Chromebooks? What are you doing to do with the software? Where are we going from there? We’ve got to start nailing this down. Let’s have that conversation in two weeks. (S-MM-AM)

Other examples throughout the interview transcripts illustrated instances where the superintendent was involved in discussions that helped drive future decisions.

Another significant element of fostering communication and ultimately creating a culture of innovation included the involvement of community members, particularly parents, as the district transitioned from a traditional district to one of innovation. In the initial phases of this initiative, Dr. Mumford described his first interactions with parents, elaborating, "I got more than one parent call, and more than one parent visit concerned about what was taking place, so hopefully being
able to calm some of those apprehensions that those parents have, we’ll continue to do that” (S-MM-I3). He referred to this community outreach himself, admitting, “Of course I am a little bit of a PR [public relations] piece, too” (S-MM-I3). The middle school principal commented on this as well, sharing, “He is fielding questions in the community from parents that are concerned about this personalized learning, and this grading piece. He’s doing everything that he can do. He’s being supportive. So I couldn’t ask for more support from him” (MP-DL-I3).

The superintendent did not just tackle questions and concerns from parents and community members, but also assumed an active role in promoting and facilitating community partnerships, with a variety of organizations. During interview sessions, Dr. Mumford elaborated on these partnerships and outreach projects, and detailed a Farm-to-School grant, Community Fall Festival at the elementary school, and FFA corn maze fundraisers. One of the most significant partnerships was with an organization called Real World Scholars, an outfit the superintendent connected with via Twitter. The district partnered with Real World Scholars to create a community donut shop, offering work-study internships for high school students. Dr. Mumford described this project:

Real World Scholars is located in San Diego, and they support entrepreneurial classrooms to the tune of a thousand dollars to help start up whatever they’re doing. We got signed on officially with our donut shop. They [Real World Scholars] have a lot more resources, a lot of things to add . . . Other skills and things that they bring on board for the kids, and
plus one neat thing is for our donut shop, they provide an electronic banking portal for you. (S-MM-I1)

The district superintendent facilitated the partnership with this organization, which developed into a significantly influential element in the innovation transformation. The artifact review provided evidence to support this partnership with news articles and feature articles from the local newspaper and KSBA.

**The Principal Role (RQ2)**

The second research question in this study examined the role of the principal in a district-wide, personalized learning initiative. In this case, the personalized learning initiative refers to the district’s approval to become a District of Innovation, recognized by the Kentucky Department of Education, and to the implementation of innovative practices articulated in that plan. The researcher interviewed the high school principal, the middle school principal, and the elementary principal, for a total of seven principal interviews. Teacher focus groups contributed to data for this research question as well, including two total interview sessions, one with elementary teachers, and one involving middle school teachers (high school teachers did not respond to requests for interviews and the high school principal had limited participation in the study). The interview protocol included several open-ended prompts:

(a) Describe the current status of the personalized-learning initiative. What does it look like in your school? How does being a district of innovation change the way you do things? Does it change anything?
(b) Describe your current involvement in the initiative. Describe your current role.

(c) Describe the successes experienced so far in the project.

(d) Describe the key challenges encountered so far in implementing the project.

(e) Describe your perception of the project. How do you feel the process is going? What are the next steps for the initiative?

(f) Describe the superintendent's role in the initiative.

(g) (Year-long reflection question for the last interview.) Describe your perception of the project this school year. How do you feel the process went? What are the next steps going into the second year?

Additionally, informal leaders were asking the following question in the focus group interview:

   (a) Describe the principal’s role in the initiative.

After analysis of the principal and focus group interview data, two themes emerged from the interview transcripts and from the artifact review.

Theme 1: The principal was the chief communicator with parents, among teachers, and acted as a liaison between the superintendent and teachers.

   a. Principals in this study managed parent communication, particularly negative reactions from parents, and facilitated communication between teachers and parents.
b. The principal facilitated communication among teachers and staff regarding decisions that impact the school.

c. The principal acted as a liaison between the superintendent and teachers, articulating the superintendent’s vision to teachers and staff, and reciprocally keeping the superintendent apprised of implementation progress.

Theme 2: The principal promoted the personalized learning initiative by encouraging and modeling mindset shifts among teachers and parents.

a. The principal fostered a mind-shift away from traditional teaching and ranking of students by encouraging personalized instruction and emphasis on individual student readiness levels.

b. The principal set the expectation for teachers to implement innovative strategies and held them accountable for innovation, but allowed maximum flexibility in navigating classroom changes. The principal acknowledged that innovation will manifest differently in each classroom.

Principal Theme 1: The principal as chief communicator.

Close analysis of interview transcripts and artifacts revealed evidence to support the theme that principals were instrumental communicators in the personalized learning initiative. Both principals included in this study functioned in this communication role, as they interacted with community members, parents, teachers, facilitated communication between stakeholders. The innovation plan detailed efforts to deliver instruction to students at their individual readiness level,
meaning not all students in the same grade will be receiving the same instruction. Some students would be working below grade level, some above grade level, and some right at benchmark. Because of the differentiation of instruction, traditional grading became challenging. Evidence revealed ways in which principals helped facilitate communication among teachers, and between parents and teachers about changes in grading practice.

**Principal sub-theme 1a: Parent and community communication.**

During the elementary teacher focus group interview, the teachers spoke of instances where the principal fielded parent questions and complaints, enabling the teacher to continue to experiment with innovative instructional strategies. For example, one teacher said:

> A parent [of a student who is accelerated] calls in and says my kid took an addition and subtraction test. He [the principal] comes to my room and says, “Did you give so and so [this test] . . . [and] why?” So I pull it up. We use MasteryConnect to help with everything and I show it to him and he goes, “Well. Okay.” (ET-DH-TRG)

The teacher was referencing showing the principal the student’s progress on an online program, suggesting that the student had not yet mastered addition and subtraction. The teacher continued, explaining,

> I’ve had two or three of those things, where a parent calls, and then he [the principal] comes in and asks . . . and you don’t worry [about his response] . . . that’s [the principal serving as] a helper to be familiar with what we are doing and why we’re doing it. (ET-DH-TRG)
The elementary principal himself commented on these types of situations during his interview, stating, “I’ll have people [parents] come to me [saying], ‘Well, I don’t know about them doing this this way.’ And I’m like, ‘Well, I think we need to give it a shot’ (EP-DL-I1). The middle school principal spoke of instances where parents questioned the entire initiative, and he buffered individual classroom teachers from the negative implications of that. He retold an event:

Another challenge was, we had a number of parents who felt like we were kind of letting teachers off the hook. In other words, “So you’re just gonna give my kid a computer and teachers don’t have to do anything. They just give them a computer and they’re [the students] supposed to do it [learning] all on their own” . . . I had to win some parents over and I asked one mom in particular, I said, “Have you spoken about this initiative in this way in front of your child?” She looked at me and said, “Yeah, I think I have.” I said, “Well. It’s like us here at school. We start MAP testing in a couple days.” I said, “If we, as teachers, go, [and say to students], ‘Well, we’ve gotta give this MAP test today, everybody’s gotta take it,’ if our attitudes are bad, then our kids’ attitudes are probably going to be similar. So if you’re talking in a negative way in front of your child, then they’re probably going to take on that notion that it’s negative.” That was kind of a hurdle, just getting everybody on board and getting them to see that this was worth doing and the kids are still gonna learn quality material. (MP-DL-I1)
In a later interview, Mr. Lakin shared his experience dealing with parents. He shared:

We had one [parent] in on Monday morning who was really upset about her son, who was a basketball player, who was going to be ineligible that night because his science grade had dropped three letter grades. And you know, I just started asking the kid in front of his mom, “Are you going to morning tutoring? Are you going to afternoon tutoring? What are you during your Level Up classes?” . . . We’re holding kids accountable for it [their learning]. (MP-DL-I2)

He continued, speaking about students who are struggling:

“Well, okay, you’re behind. So what are you doing? What are you taking advantage of that we have built in here at school to get that caught up?” . . . We hate to use this word, but we’ve tracked every kid who’s deficient in every area and we’re pushing them all together during those Level Up classes. (MP-DL-I2)

Mr. Lakin was describing a system of monitoring student progress toward their mastery of learning targets and content standards. As students progress through curriculum, instructional modifications and interventions are made to support them in their progress toward proficiency. This type of personalization is different than traditional practices, where educators typically teach, assess, and move on, regardless of the degree of student mastery.

Evidence gathered from the document review provided support for this subtheme, as the district-wide improvement plan detailed specific efforts for the
principal at each school to act as a facilitator of parent communication. The improvement plan states:

GCES will schedule parent teacher conferences, back to school bash, individual meetings based on needs, Literacy/Family night, PTO Patent night (such as honor roll), Pastries with Parents, etc. Parents will be able to receive an update of their child’s progress. The parent will also be provided with the opportunity to ask questions about their child’s learning as well as more information on how to communicate more with teachers.

On the other hand, Mr. Lakin reported instances where communicating with upset parents created opportunities for teacher reflection and growth. He said:

I like that teachers are talking to parents. I like that we’re getting phone calls from parents who are upset, that are saying, “This is not working for my child.” And it kind of causes us to take a pause, and to step back and look at what we’re doing and go, “Okay, is this the best we can do?” (MP-DL-I2).

Ms. Rapping, a 4th grade teacher, discussed similar issues in a focus group interview, explaining that in the beginning of the initiative, teachers were trying many new strategies and techniques in their classroom, and parents were uncomfortable with some of those changes. She said:

We didn’t necessarily dive in and all say it’s going to be this, this, this, and this [in every classroom]. It was kind of like, well, you decide what [the innovation is going to look like] in your classroom. Then parents were all
tore up because this teacher was doing it this way, this teacher was doing it this way, and so it wasn’t consistent. So then parents ate us up and then we changed . . . [We said] everybody is going to do it this way, and . . . that lesson was learned. (MT-RR-TFG)

Her colleague, also in the focus group, Mr. Kirshner added, “Everybody now is . . . on board [with personalizing instruction in classrooms and utilizing Canvas]; let’s go with it. We started it, we jumped into it, and now it’s working good” (MT-MK-TFG). Both elementary and middle school teachers reflected back on experiences, initiated by parent communication with the principal, in which they were required to reevaluate their practices and make changes to improve student learning experience.

In another example of community communication, Mr. Holzer, a 4th grade teacher, stressed the importance of shifting mindsets of parents regarding grades. He explained:

I think the next thing is getting parents not to look at a grade . . . cause parents are all tore up about their [student’s] grades. . . . Parents are so driven on grades . . . we’ve got to get parents away from grades and looking at [how} they’re mastering the standards. I think that’s the biggest challenge. (ET-DH-TFG)

**Principal sub-theme 1b: Facilitating communication among staff.** The elementary principal, Mr. Lippolis, spoke of communicating with and among teachers for the benefit of parents and the larger initiative. He discussed this in context of upcoming goals during professional development sessions. He shared,
“What I want to tell them [teachers] on Thursday, is I want something for our parents. And I want it to be input from [teachers] on our expectations and what we expect kids to do” (EP-DL-I3).

As the personalized learning initiative developed and matured, and as evidenced in the last interview with Mr. Lippolis, he articulated the ways in which he was still promoting the initiative and facilitating necessary changes in the later stages of the initiative. The principal shared his plans for the school's end-of-year professional development, stating

I think everything we've done here has been more Mr. Lippolis-led. What I'm planning on doing Thursday is giving a little of this back to teachers. . . . I want them to fill in the gaps: What is considered mastery? And you tell me as a school, what do we consider mastery? Where do we want to be as a school? What is acceleration? What does it mean for an GCS student? And have my teachers fill in some bullets. And then give them some voice in this to help them buy into it. (EP-DL-I3)

Transcript evidence demonstrated the principal's openness in allowing his teachers to adjust to the changes as he simultaneously facilitated needed changes as articulated by the District of Innovation plan to personalize learning.

He further explained his plans to incorporate more teacher voice as the initiative progressed, sharing:

I’d like to see us transition to standards-based grading, but I want us to do this over the next year. I don’t want us to do it this summer. I think it’s something we need time to figure out what our standards are . . . and how
we want to grade our standards. . . . I think we need to give it some time to work on it, PLCs and things like that through the year. Get y’all’s input . . . and then be filling the parents in on, “Hey, we’re going to go to standards-based grading next year.” (EP-DL-I3)

Mr. Lippolis encouraged this shift among his teachers and solicited their input as they made plans to move forward. Findings suggest the further along in the implementation of the initiative, the more teacher input and ownership was sought.

Teacher focus group transcript findings reciprocate this communication, as Mr. Holzer shared his thoughts on standards-based reporting,

I don’t think that’s something we can do without talking to the community. . . . Or at least [without] giving them a chance to come in and talk to us, because I think if we try to do something next year, and we’re like, ‘Alright, splash!’ I think you’re going to have fifth grade parents coming in going, ‘What’s this mean, is that an A or not?’ Well no, it just means your kid’s mastered that standard. (ET-DH-TFG)

Further conversations involving grading practices highlighted the principal’s role in facilitating communication among staff, as Mr. Holzer vocalized his frustrations about the concept, saying, “I get frustrated; now I’ve had this conversation with my administration . . . And I get what my counselor is saying. My counselor is saying, ‘Listen, guys, you can’t have two tests in the nine weeks. . . . That’s not enough grades’” (ET-DH-TFG). The teacher continued, stating:
I’ve had parents that called and were like, “Well he hasn’t put any grades in this thing for two weeks.” Your kid is not in those units, your kid is not going to get a grade, but I can’t say that to a parent. I can’t be like, “I’m sorry, your kid is two units behind this kid, but I can’t make one [a grade or assignment] for that kid and not for yours.” (ET-DH-TFG)

During the middle school teacher interview, transcript data evidenced Mr. Lakin facilitating conversation among faculty about the consequence of student who do not complete their work. Mr. Kirshner detailed:

I’m hearing . . . that they [students] are working a little bit more. They’re at least concerned that if they don’t get their work done, that they may have to finish that up at summer school, and that’s something else that we’ve talked about doing here [at the middle school] as well. (MT-MK-TFG)

High school principal Ms. Brookes shared thoughts on her role as a facilitator of communication; speaking about student schedules, she explained:

There is going to be a two-way conversation, at least . . . with the advocate, with the guidance counselor, with a . . . mentor. And then we have a group session. . . . There’s more of a communication piece now.

The District of Innovation [initiative] is just all about that individual [student]. (HP-MB-I1)

The document review provided supportive evidence for this sub theme, as the district improvement plan highlighted specific instances in which the administrator at each school would act as a facilitator of communication between and among staff. The plan stated, “GCES staff will progress monitor at-risk
students using MAP and AIMSWEB. Administrative staff and teachers will meet regularly to progress monitor our at-risk students to meet their Tier II and/or Tier III needs.” In addition, the district’s comprehensive district improvement plan included examples of situations in which the principal will facilitate communication among staff. The plan stated, “Guided planning meetings will occur at each school in order for administrators and teachers to use current data to review, analyze, and modify instruction to meet student needs.” The plan also outlined intentions to increase overall reading and math proficiency scores. This goal included a feedback cycle between teachers and administrators, stating, “Principals will monitor the implementation of these instructional strategies [aimed at increasing proficiency] and provide feedback to the teachers. [Principals and teachers will] explore differentiated assessment/accountability models based upon actual, individual student growth.”

**Principal sub-theme 1c: Principal as liaison.** Evidence from interviews suggests principals were also the liaison between teachers and the superintendent, who as described above served as the champion of change, driving the innovations forward. In this “go between” role, principals helped relay information to the superintendent regarding changes in classroom instructional practice, helped reinforce the superintendent’s vision for the innovation to teachers, and facilitated communication about teachers’ concerns to the district level.
Mr. Lakin spoke of his position as a liaison between teachers and the superintendent on several occasions. He detailed a specific example when teachers raised issues and concerns about grading practices. He shared:

We were in leadership team Monday afternoon, and we started talking about grading and what we needed to do, and we even started talking about [resource] allocations for next year. And we’re like . . . I can’t answer all these things. Let’s get Dr. Mumford in here. So I texted him right that moment. (MP-DL-I2)

Mr. Lakin explained:

He came on his own and just kind of showed up. He goes, “Hey, you got a minute? Let’s talk.” And I said, “Sure.” And so we sat, I told him what my issues were, I told him that we had done individual guided planning [with teachers], and what we had heard there. I asked him if he’d be willing to meet [with the team]. He said he would. (MP-DL-I2)

In another instance, the researcher observed Mr. Lakin updating Dr. Mumford on the happenings and developments in his building during an administrator meeting at the central office. Mr. Lakin briefed Dr. Mumford on current work in designing online curriculum, stating:

Usually we develop that, I call it a skeleton plan, that rough draft, in a leadership team meeting. I think what we need to do on Friday is to revisit that and talk about next steps. Without their input, no, we haven’t gone very deep into it. (P-DL-AM)
Interview data with Mr. Lippolis rendered evidence of this role of the principal, as he explained upcoming plans for a teacher work session, stating:

What I’m going to try to do [during the work session], I’ve got a meeting with Dr. Mumford at nine [to update him on ideas for standards-based grading]. . . . I want to get them [teachers] started, talk to them until about nine, and leave them alone to work. And then come back and ask questions. (EP-DL-I3)

The artifact review also supported the theme of principals as liaisons, as administrator meeting meetings were held monthly and minutes evidenced regular updates of progress, struggles, and concerns from each school. The artifact review showed that principals regularly attended monthly board meetings to communicate school progress to the superintendent and the school board. Additionally, in the district’s school improvement plan, there were several explicitly-stated examples of this type of communication. As part of their plan, specifically dealing with content standards, the document stated, “GCES Administration and teachers will work in PLC meetings along with the [Administration] Team to review our academic standards and make appropriate revisions needed to meet the needs of our students.” In the same plan, similar communication protocols are addressed again in reference to the district’s RTI (response to intervention) plan:

GCES is working with the [Administration] Team consisting of principals, counselors, teachers, and staff that will look at the academic data for the school. The team will meet to discuss students who are on-grade level,
above grade level, and below grade level. The Team will discuss students who do not meet benchmark and cut scores and develop an individual RTI plan for addressing the needs of these students. The team and teachers will monitor student progress with interventions. The team and teachers will make decisions using MAP data, other academic data, and protocols to determine overall effectiveness. This team will make adjustments to RTI Tier instruction based on data as needed.

**Principal Theme 2: The principal as a promoter of innovation.**

An element of the principal role in this initiative included acting as a promoter of innovation by modeling and promoting mindset shifts among teachers and parents, particularly in regard to personalized instruction, student readiness level, and innovative classroom practices. The principal encouraged and modeled shifts in thinking about student ranking and grouping practices, and promoted teachers’ understanding of students’ prior knowledge, strengths, and growth areas. As expectations to implement innovative teaching and learning methods and practices were articulated to teachers, principals in this study held individuals accountable for meeting those expectations, but simultaneously accommodated experimentation and flexibility in how teachers chose to implement those practices.

**Principal sub-theme 2a: Fostering a mind shift away from traditional grading.** Principals in the Greyford County Schools fostered a shift in thinking away from traditional teaching and ranking of students by encouraging personalized instruction and meeting students at their individual readiness levels.
The principal made efforts to shift the focus from test scores and grades toward student growth, both with staff and parents. Interview data and document review findings suggested the principal’s role during this innovative initiative included promoting innovation and the concept of personalized learning to his or her teachers by articulating the goals of the initiative to staff members. Particularly, the principal fostered a mind-shift away from traditional practices of ranking students according to their achievement, toward more personalized practices whereby teachers meet students at their readiness level, deliver specialized instruction, and help student progress as far as possible toward proficiency.

Additionally, data show the principal modeled openness and flexibility as teachers explored instructional delivery strategies to investigate what success was in their classroom, all in order to advance the personalized learning initiative.

The elementary principal, Mr. Lippolis, spoke about challenges of the District of Innovation initiative, which sought to stretch thinking beyond test scores by placing an increased focus on student growth and readiness levels. He shared with the researcher, “I’ve been in education for a long time; it’s always been about test scores. Gotta let go of what the test score is, the comparison across the state where you are, to ask people to not worry about that and just do the best they can with the kids every day, and truly just go back and teach kids” (EP-DL-I1). He continued, “Just making accommodations for the kids, where they’re at. Working with them where they’re at, and challenging them when you can. Giving them challenges when you have that opportunity” (EP-DL-I1). The principal acknowledged the shift from accountability measures towards
personalized learning is a struggle, and promoted that shift to his teachers. In a separate, later interview, Mr. Lippolis revisited this mindset shift, telling the researcher:

Sometimes, some people can’t get their mindset off of test scores and teaching to the test. That’s been probably the biggest culture change for me, is my staff feeling more comfortable to work with students at the level they’re at, and try not to worry about the end of the year test score. (EP-DL-I2)

The tone he attempted to set was clear, as he told the researcher, “We may take a hit on the test, but maybe we’ve prepared them for life, or at least elementary school” (EP-DL-I1)

In order to promote personalized learning in his building, Mr. Lippolis attempted to shift his teachers from having an accountability-focused mindset to having a mindset of student growth. Traditional schooling models place emphasis and accountability on test scores, typically state-mandated end-of-year assessments and school or district wide assessment measures, such as MAP or STAR tests. The District of Innovation plan shifted the focus from those high-stake assessment measures to student growth, where regardless of grade level, students receive instruction based on their readiness level. This could mean students work far below their grade level, far above their grade level, or right on benchmark. Traditional assessments do not take this readiness level into consideration when calculating cut scores.
Mr. Lippolis explained to the researcher what he wanted to communicate to his staff:

That’s the beauty of it, we are truly trying to work with kids where they’re at to bring them up as far as you can by the end of the year. In the past... kids were getting fourth grade standards [who were] on a second grade level, and they didn’t have a clue by the end of the year, still, what they were doing. They just didn’t get it. In this process, I feel like if they’re a fourth grader on a second grade level, we’re at least trying to give them that instruction, where maybe they understand... We try to work with them where they’re at. (EP-DL-I1)

He shared what he had discussed with his faculty, stating:

We’ve talked about, if a kid is novice, they’re probably gonna stay novice. But it allows us to at least have a chance to move kids and have growth, maybe before they go to middle school. They may still be a novice on the fifth grade test, but if we move them, and if they’re adding and subtracting, multiplying and dividing, and they weren’t doing that a year ago, then to me, that’s growth. (EP-DL-I1)

During the middle school teacher group interview, Ms. Rapping commented about personalized learning and her daughter, a fourth grader in the district. She said:

I don’t know what the program is they’re using, it bases what their work is by what level they’re at. Well, she’s not at what she should be, and she’s
doing . . . addition because that's [her level]. But her tests and things are over . . . long division. (MT-RR-TFG)

From a parent perspective, this teacher struggled with the idea of personalized learning as it was impacting her student, finally sharing:

If you’re doing math, you’ve got to know how to do long division, multiplication, in order to progress to the sixth grade. If you don’t have those cores and bases, you can’t . . . That’s where I do have a little bit of a problem, especially in the younger classes. (MT-RR-TFG)

**Principal sub-theme 2b: Accountability with flexibility.** The principals set the expectation for teachers to implement innovative strategies and held them accountable for innovation, but allowed maximum flexibility in navigating classroom changes. The District of Innovation application stated:

By using Canvas, students in grades 4-12 have been able to experience the very beginnings of what a true system of personalized instruction might look like. Our goal is to grow and expand the program year by year. Being a District of Innovation will assist with the expansion of this program as well, as it provides a catalyst for teachers and students to explore new and exciting ways of learning.

Evidence suggests the principals acknowledged that innovation manifests differently in each classroom. The innovation plan stated, “District and school leadership stand ready to provide resources and support to those staff members willing to step out and attempt new and exciting initiatives for their students.”

According to transcript data, Mr. Lippolis was clear in articulating what
should be happening in classrooms as the implementation process progressed. He elaborated on his goal during this initiative, sharing, “I just want to see . . . going into classrooms . . . a lot more differentiation. I [want to] see kids engaged in different [kinds of learning]--not all of them are on the same thing, everybody’s doing something different” (EP-DL-I1). The principal articulated his desire to see personalized learning across all classrooms. In an interview, he discussed changes he asked teachers to incorporate early during the implementation process. Mr. Lippolis shared what he asked of teachers:

But it’s kind of letting go. We’re trying to be more flexible with two or three different types of math going on [in the same classroom], maybe. If anything, I’ve asked, try to at least differentiate to two or three groups if you can’t deal with an individual [personalization] right now, as much as you can. (EP-DL-I1)

In the middle of the implementation process, Mr. Lippolis updated the researcher on the progress made in his building, specifically in terms of differentiating instruction, a goal of the initiative. He shared, “You’ve gone away from the traditional, walk in the classroom, all 25 kids in the room’s gonna do the exact same thing, [that the] teacher’s gonna give them. It definitely took that piece out of the puzzle” (EP-DL-I2). These findings suggest the principal saw changes in instructional delivery as a result of what he was asking teachers to do and change. Toward the end of the research project, and during the last interview with the elementary principal, he shared:
I think right now you’re starting to see buy in. Especially from people that’s using it [personalization strategies] and have been effective with it. They see it’s better than anything they’ve ever tried before. . . . Teachers that truly do this and do it right, truly see the benefits for kids. (EP-DL-I3)

He also normalized the changes taking place, and articulated that by stating, “Now they [teachers] see it’s an everyday thing, it’s ongoing every day. I think it’s opened some teachers’ minds” (EP-DL-I2). Mr. Lippolis promoted personalized learning concepts to his team, and after he facilitated those changes, there was evidence to suggest those changes resulted in mindset shifts among teachers in his building.

High school principal, Ms. Brookes, shared her perception of the initiative, and what she wanted to instill in her teachers:

I love it. I love it. I’ve always been a school leader that . . . every decision is made, “what’s best for students.” Well, personalized learning has taken away . . . The District of Innovation, it has taken away what’s best for adults, and put in the forefront what’s best for students. (HP-MB-I1)

This is a shift from adult-centered decision making to student-centered decision making.

In addition to facilitating changes required in classrooms, Mr. Lippolis also modeled flexibility and mindset shifts for his teachers. Interview transcripts highlighted multiple instances where the principal modeled open mindedness in regards to adopting personalized learning concepts and practices. As he spoke with the researcher about personalized learning in broad terms, he stated, “I’ve
been open-minded with it. You have to be flexible as an administrator. I let people try new things. . . I'm still letting them experiment with this [using Chromebooks in instruction]" (EP-DL-I2). Specifically, he expressed a mindset shift he had to make in regards to lesson planning:

I don’t push the lesson plans that hard because of all this [personalized learning initiative]. I just say, accommodate for the students more than give me the lesson plan on paper. . . . I’d rather you’d work spending time getting stuff ready for those kids’ [individual] level than to give me a lesson plan, where you’re telling me all 50 things you’ve done for the week. I just told them, “I would just put on the lesson plan, differentiation of instruction, preparing for the kids.” (EP-DL-I2)

He continued to say, “That’s another part of me, I’ve kind of let that be on them to prepare it, to individualize education now.” Mr. Lippolis said:

I had to be open-minded on that, too, if I came in for a lesson . . . you might want to put stuff on paper like the old way. But for me, for the weekly ones [lesson plans] now, I’ve had to be open minded with that because there’s not enough time in the day to put everything on paper . . . if you truly have that many kids in different places [responding to their readiness levels]. (EP-DL-I2)

Mr. Lippolis explained his efforts to support teachers the shifting of how they are planning for lessons, sharing:

I guess that’s the flexibility part for me, is just being supportive because they [teachers] plan more probably more than they’ve ever planned before
in this process. It’s not easy. . . . You might’ve planned for five different level of classes, well now they’re planning for fifty different levels. (EP-DL-I2)

In regards to planning, Mr. Lippolis explained how he promoted the concept of personalized learning among his teachers and pushed back against the traditional way of planning that teachers were accustomed to. He explained that teachers were accustomed to planning as a team, where one teacher would plan one subject and share those plans with the four other teachers on their team. He explained his concerns in an interview:

[Teachers] plan as a team. . . . That’s fine to go do that, but make sure you differentiate [for the students in your individual classrooms]. And does this teacher that’s done the math [planning] for everybody know where all your kids are? How can you do that effectively now? That’s why I try to be open-minded with that, too, I said, “Make sure if you’re planning [as a group] all five of you should be in the room, at a table planning [together].”

To truly do this right, you shouldn’t be just doing it for the other four--because that’s happened before--and I’m trying to get them out of that mindset there. . . . I’d say it’s just starting to open people’s eyes to personalized learning and to see the benefits of it. (EP-DL-I2)

Mr. Lippolis did not only push back against planning, but also promoted the personalized learning innovations through questioning of instructional practices that he witnessed during walkthroughs. He expressed during an interview:
I try to be flexible with my teachers when they try something. . . . Today, I saw some simple math and I asked the teacher, ‘Why’s all the kids doing this part if we’re trying to accelerate kids?’ And she said, ‘Well, I’m just making sure there’s no gaps.’ Okay. I can live with that. . . . I don’t try to go in and make them change anything. (EP-DL-I1)

As benchmark MAP testing approached later that year, he said, “But if [their instructional method] works for them, I’m just not getting in the way. I want to see how scores go first, before I question anything they’re doing right now” (EP-DH-I1). By allowing teachers some flexibility in their instructional approach, and by allowing them to explain their decisions without fear of reprimand, the principal could promote personalized learning and challenge traditional procedures in a respectful way. He again commented on his commitment to openness during the initiative, sharing, “I told them that’s part of the growth process. Anything you do, some are going to do it different. But I had to leave that open and [as] an administrator . . . to allow them to adjust to the new curriculum as well. So I did it that way” (EP-DL-I3).

Teacher focus group data supported this theme, as Mr. Selleck, fourth grade reading teacher articulated, “[Teachers need] clear expectations. If they [administrators] are going to say you have control over your classroom, you can try this, then let that be what’s said and sick to that” (ET-TS-TFG). Ms. Byrne, fourth grade social studies teacher, added, “[We need] familiarity. Just some clear expectations so that everybody’s on the same understanding of what’s going on. Cause it’s a lot. If you walked in my classroom, you wouldn’t
understand how everything works. You need to know those things” (ET-SB-TFG).
In the same interview, Mr. Holzer commented on interactions with his principal and walkthrough observations, stating, “You don’t worry” (ET-DH-TFG).
Teachers understood that they were expected to make changes in their practice, but they also understood they were afforded flexibility in how they adapted their classroom.

Likewise, the middle school principal, Mr. Lakin, commented on shifting mindsets with his staff as well. In an interview, he said:

We’ve got to be comfortable with being uncomfortable. In other words, if we want our students to take chances, they have to see us [teachers and leaders] take chances as well. So whatever it might be, whether it be taking on a new content level that you’re certified for but never taught, or taking on a new grading system, or whatever. If we want our kids to take chances, I feel like we’ve got to model that for them and go, “Look, we’re all trained to do this, I know it’s uncomfortable, I know you’re scared, but let’s do it. I think we can do it. We’re all trained adults, educated adults, and I think that if we work at it, and take our time and be deliberate, that we could do it.” (MP-DL-I3)

Mr. Lakin made comments suggesting that he, like the superintendent, attempted to normalize the innovation in his building, stating, “It’s not painful. Really, I guess what I say here, it’s kind of what we do now” (MP-DL-I3). He continued in the interview to add, “And just to be honest with you, for the most part, it’s [the innovation] been positive” (MP-DL-I3). This topic was supported by teacher
interviews, where Mr. Kirshner and Ms. Rapping agreed, “We see the support of the principal” (MT-MK/RR-TFG).

The middle school principal interview data highlighted evidence that Mr. Lakin encouraged and promoted mind shifts within his team as facilitated changes to implement the personalized learning initiative. He expressed changes he had to make in his own thinking, stating:

I had to prioritize my day, and I had to carve out times in my day where I’d tell my secretary, ‘Listen, I’m not available during these times unless it’s an emergency. I’m in the classroom.’ And so I just had to step outside of my comfort zone and go, ‘Look, I know you’re scared, I know it’s going to be difficult, but we can do it, and we can do it together.’ My role is to model, and my role is to be a principal and administrator, and kind of manage this initiative that we’ve started called personalized learning, and just to try to help teachers to get better. And what I found is, just as in a classroom of students, when I would be in there I realized, as I always have, you’ve got different groups: some get it, some don’t, some are almost there. Well my teachers are the same way: some get it, some don’t, some are almost there. So I’ve got to give them what they need to help them to move along and be successful in the process. (MP-DL-I3)

Mr. Lakin described how he tried to facilitate changes to implement personalized learning in his school and in individual classrooms. Data highlighted Mr. Lakin modeling his own growth and development as he stepped out of his comfort zone to realize the vision of becoming a District of Innovation. Again, he stated:
I guess my role in its most basic sense would be principal, instructional leader, however you want to look at it. But I think, too, at the same time whatever I’m asking my teachers to do, I have to do and model for them and go, ‘well, if I’m uncomfortable . . .’ For example, being in the classroom. I was in the classroom a lot this year and I would lead lessons, and I did a lot of different things that traditionally I was too busy to do.

(MP-DL-I3)

The principal built on his own personal shift in mindset to relate to teachers who were experiencing their own uncomfortable changes, initially offering his thoughts about the personalized learning initiative, stating, “It’s totally brand new for teachers, it’s brand new for me, it’s brand new for students” (MP-DL-I2). He recounted his experience with the implementation process, sharing, “I got teachers that are twenty-plus year veterans who are scared to death of technology. I’m cool with a smartboard, I’m fine with a slate board. I’m fine with clickers, but if you ask me to flip my classroom, I’m just not comfortable with it” (MP-DL-I1). As Mr. Lakin promoted personalized learning and encouraged this shift to reluctant teachers, he utilized supports to help teachers with the change process. He shared, “So we have Matt Shirley, our Canvas coach who is here one day a week to help with those teachers to help them get a little bit more comfortable with the platform, used a little bit more in daily instruction” (MP-DL-I1). Though the principal still pressed for changes in daily practices in order to implement personalized learning strategies, he said he did so in an encouraging manner, providing supports for teachers who were experiencing reluctance.
In a separate interview, Mr. Lakin updated the researcher on progress being made in making personalized learning a reality at the middle school. He declared:

There’s a traditional camp in my school and then there’s a progressive camp. And both are good [teachers]. And so we’re really now in the middle of this tug of war of holding on to what all of us are used to, as former students, as former teachers, and what we used to do, and what we need to continue to be progressive [about] as a district of innovation with personalized learning. So we’re trying to figure out the best way to move forward that is best for kids and that is something that our teacher are able to live with and get some benefit from in the term and go, “Oh, okay. I can do this, I see how it works. Now I’m ready to take on a little bit more and a little bit more, and a little bit more.” (MP-DL-I3)

Mr. Lakin described his flexibility and openness as he pushed and encouraged changes to enable personalized learning to take place across the school. His said he approached mindset changes as an incremental process and supplemented with supports for teachers who needed it. He shared, “We knew when we started that we would have some ugly patches along the road, some bumpy parts of the road” (MP-DL-I2). His sensitivity to change and innovation was evident; during an interview, he stated, “I don’t want to bite off more than I can take, or anybody else for that matter. I don’t want anybody to be overwhelmed doing more than we are” (MP-DL-I3).
He also made evident the effect of his modeling and encouraging mindset shifts in his middle school staff. During the last interview, Mr. Lakin shared:

But what I found . . . with this change, and the way we do our work, it’s been really nice in that teachers are stretching themselves to being able to do things they didn’t think they wanted to or didn’t think they could do it at all. So it’s been really cool watching people grow and kind of change their minds over the course of the year. So that’s an ongoing process. . . . I’m really enjoying that, and it’s been good for me. I’m learning, I’m growing. And I think if you ever stop doing that, you’re done. (MP-DL-I3)

It can be inferred that his willingness to grow and change had some impact on his teachers to do the same.

During the last interview with Mr. Lakin, as he was asked to reflect over the course of the project, he offered his thoughts:

It’s been good for our school. It’s been good for our district. It’s been good for those kids who at times . . . have been held back because of the traditional way that we do school. . . . We’re really working to serve the needs of the kids more than we are the needs of the adults. . . . Now I can say, “Okay. You’re done so we can move you onto this so you can accelerate and continue to move forward.” I love that. (MP-DL-I3)

The document review provided sound reinforcement of this subtheme. As mentioned previously, the district comprehensive improvement plan stated principals would monitor implementation of instructional strategies through walk-through and formal observations, and communicate with teachers based on the
evidence rendered from those experiences. Additionally, the District of Innovation plan specifically stated many staff members were eager to explore new ways of teaching, learning, and assessing, suggesting a certain freedom they need in order to discover what is successful in their classrooms. The application stated, “A number of staff members and grade level learning teams are eager to explore standards-based grading and mastery competencies.” Similarly, the application stated a request to experiment with scheduling in the elementary school, stating:

GCES will develop and implement flexible scheduling options that allow for more acceleration opportunities for all students. This may include students being able to participate in middle school classes by use of the common Canvas LMS interface. The emphasis will be placed on the personalization of each child’s learning. If a student has a need to be accelerated in one discipline but not the others, there should be a way to accommodate this. Acceleration options will be sought all the way from preschool through fifth grade.

The plan also articulates a desire to accomplish the goal of personalized learning based on readiness level, however, there are no specific methods of how to realize that goal in the plan. This suggests teachers must have the capacity to explore and experiment to find effective strategies of teaching and learning in order to meet students at their readiness levels.

The Role of Informal Leaders (RQ3)

The third research question in this study examined the role of informal leaders in a district-wide, personalized learning initiative. In this case, the
personalized learning initiative refers to the district’s approval to become a District of Innovation, recognized by the Kentucky Department of Education, and the district's implementation of its innovation plan. Informal leaders are individuals who do not have a formal leadership position, but assume leadership roles or exhibit leadership qualities in their daily duties. Informal leaders in this initiative emerged naturally in schools throughout the district; many informal leaders are classroom teachers. The researcher interviewed a focus group of elementary teachers and a focus group of middle school teachers to further explore this topic. The high school principal did not respond to requests for interviews after the initial interview session. The interview protocol included several open-ended prompts:

(a) Describe the current status of the personalized-learning initiative.

(b) Describe your current involvement in the initiative. Describe your current role.

(c) Describe the successes experienced so far in the project.

(d) Describe the key challenges encountered so far in implementing the project.

(e) Describe your perception of the project. How do you feel the process is going? What are the next steps for the initiative?

(f) Describe the principal’s role in the initiative.

(g) Describe the superintendent’s role in the initiative.

(h) (Year-long reflection question for the last interview.) Describe your perception of the project this school year. How do you feel the process
went? What are the next steps going into the second year?

After analysis of the principal interview data, two themes emerged from the interview transcripts and from the artifact review. Three smaller subthemes are evident in the data as well.

1. The informal leaders in this initiative are those who are “early adopters,” share in the vision of the superintendent, and adopt innovative practices to realize the vision.
   a. Informal leaders are the ultimate risk-takers in the initiative and experimented with innovative strategies to accommodate the needs of their students.
   b. Informal leaders modeled perseverance in overcoming challenges in order to make personalized learning a success in their classroom.
   c. Informal leaders experienced mindset shifts early in the initiative and shared those experiences with others.

2. Informal leaders impact their colleagues and create increased participation in innovative teaching methods.

Informal Leaders Theme 1: Evidence of informal leaders as early adopters.

In this study, informal leaders were early adopters who shared in the vision of the superintendent and adopted practices that advanced the vision of the organization becoming an innovative, personalized learning district. Informal leaders experimented with new, innovative teaching and learning methods in their classroom in order to better meet students’ needs in terms of remediation
and accelerated learning. Despite the struggle and problems that arose in adopting new modes of teaching, informal leaders persevered through challenges in order to find successful methods. As these leaders worked through implementation challenges, many experienced shifts in mindset and shared those experiences with colleagues, ultimately promoting the innovations to others within the organization.

**Informal leaders sub-theme 1a: Risk-taking and experimentation.** One of the concepts found throughout interview data was that informal leaders were the “early adopters” of innovative practices, tools, and strategies. As early adopters, informal leaders were required to take risks in their classroom, experiment with innovative ideas, and model uncomfortable struggle for their colleagues. The document review uncovered evidence supporting this as an unstated goal, as the District of Innovation plan stated, “Being a District of Innovation will provide new avenues for student success and will encourage faculty and staff to seek out new, bold, and exciting opportunities for our students.”

Middle school special education teacher, Mr. Kirshner, spoke of himself and other “lead teachers” during the group interview. Lead teachers are those who naturally emerged as leaders, identified by their principals and colleagues. Mr. Kirshner explained, “Yeah . . . We kind of jumped in full” (MT-MK-TFG). Those lead teachers were selected by their principals to take part in the focus group interview because of their heavy involvement in the early implementation phase of the personalized learning initiative. Ms. Rapping, another teacher in the
focus group interview shared her thoughts of the District of Innovation movement, saying, "I do like the idea behind it, and I do think it’s a new idea and some people don’t like change. I’m relatively young, so a lot of the stuff that I’ve been taking with my [graduate] courses, they talk about the standards-based grading. Even though we’ve not went into it that fully . . . I think it’s beneficial" (MT-RR-TFG).

The group of fourth grade teachers involved in this study experimented with various grouping strategies, ruled out ones that did not benefit students, and also included third grade teachers in their attempts to be innovative to better meet student needs in terms of what skills students needed to master content. In an interview with those elementary teachers, the group collectively commented on their attempts at personalized learning and their effort to experiment with different grouping models. Flexible scheduling as a method to deliver more personalized instruction was a suggestion in the district’s innovation plan. Ms. Bissen, a fourth grade language arts teacher, explained:

We group once the start of the year [begins] because-- well--we experimented--we experimented with RTI (response to intervention). For RTI we changed our groupings, but for actual class, we tried this last year where we . . . actually took the third and fourth grades last year and combined them and we had seven teachers across in math and eight across in reading. (ET-RB-TFG)

The combination of grades three and four and the grouping system that developed from that idea was intended to help teachers provide more
personalized instruction for students based on their academic readiness level instead of their grade level or age. These types of flexible schedules and groupings were articulated in the innovation proposal. The teachers discussed the logistical problems with grouping students together across two grade levels, but how they ultimately decided to abandon that idea the next school year. Ms. Byrne, fourth grade social studies teacher, explained, “So this year, we ability [readiness] grouped in the reading and math. Everybody’s got flexible groups within their class sections. We are not moving kids from class period to class period because right now; Infinite Campus [the computer program that handles student scheduling and grading] doesn’t jive with it” (ET-SB-TFG).

In a teacher focus group interview, a 4th grade math teacher, Mr. Holzer, commented on working with his team members, three other teachers who had become recognized by their peers and principal as the “personalized learning teachers” (ET-DH-TFG). This particular teacher had more years of experience than his colleagues, but commented on his efforts to try innovative ideas in his classroom. He stated:

They’re [his teammates] definitely more advanced than me. They got more practice, but I tried a few different things this year that didn’t work. Right now I’m at a level where I have every student pegged on where they are according to their math… they receive different work within the same unit. (ET-DH-TFG)

He commented on his specific classroom practices and finished the thought by adding, “Fifth period is probably my highest class. So, I usually push them a lot
harder than my other students because they’re at such a high level” (ET-DH-TFG).

During the middle school teacher interview, the researcher interviewed three teachers: a vocational teacher, a special education teacher, and a language arts teacher. These teachers were chosen by their principal to participate in the group interview because of their involvement in the initiative, recognized by the principal as early adopters of Canvas Learning Management System (LMS), the district-wide program for implementing the online components of personalized learning. One of the goals of the personalized learning initiative at the middle school was to have all student content uploaded to Canvas LMS so students could have full access to instructional material and move through content at their own pace. In that interview, teachers shared their experience with implementing innovative methods into their teaching, including their struggles and their successes. Interview data support informal leaders are early adopters, are steadfast through challenges of changing their practice, and model perseverance as they implement personalized learning strategies.

During the middle school teacher focus group interview, Ms. Rapping, the language arts teacher, shared her experience:

Basically everything is uploaded into the Canvas program . . . so they [students] can access their work at any time. I’ve kind of blended mine in more than I guess complete self-paced, because I feel like they [students] do need a little bit of structure still at the middle school level. (MT-RR-TFG)
Ms. Rapping describes how she is implementing the innovation strategies as she is required, as the implementation of Canvas LMS was a school-wide requirement specified by the District of Innovation plan and then articulated by each school principal. Though she was utilizing the online instructional delivery program, she wasn’t comfortable transitioning her classroom to be entirely online, where students worked independently at their own pace. She continued:

But language arts has been a little bit different than I think the way math approaches it, and some of the others ‘cause we do read, and I like to discuss [what they've read] with them [students as a whole class]. So I have kind of blended it in and right now, we’re actually doing a whole group lesson over *The Outsiders*, but . . . everything is uploaded into the Canvas program; they can access at any time. (MT-RR-TFG)

For her classroom, strictly self-paced learning inhibited the student and teacher interaction that she desired teaching a literature class. This suggests the language arts teacher implemented Canvas LMS into her classroom in a way that may have been different than others, showing she made the district-wide vision and school-wide goals a reality in her classroom by adjusting it to fit her students’ specific needs.

Ms. Rapping elaborated:

We try . . . to have the whole group instruction going on in one content. Whether [students are] individualized and they’re working on a computer all day long in science, math, and social studies. . . . In reading they’re doing whole group where they’re getting to interact with the teacher and
interact with kids. And he [the special education teacher] does that where
they're interacting with him, then they can work individualized in other
classes. (MT-RR-TFG)

Instead of requiring her students to work completely self-paced in her reading
classroom, Ms. Rapping experimented with blended learning techniques to
provide peer-to-peer and peer-to-teacher interactions within her classes.

Likewise, the Mr. Kirshner, a middle school special education teacher,
shared his positive experience with making personalized learning strategies work
in his classroom. He shared:

The way it helps me, some teachers have it all online, have all their tests
online, some are still doing paper, and I’ve been able to do
accommodations on all my tests so that before school started this year I
had done all the test accommodations on every test. . . . They have
automatic readers on the electronics. They don’t have to wait for me to
come and read individually to all of them, to make their accommodations.

And so I like that part of it. (MT-MK-TFG)

This teacher’s perspective of personalized learning differed from many others, as
he specialized in working with students with special needs. His approach to
implementation was vastly different than a classroom teacher. Instead of strictly
uploading content (instructional videos, coursework, and assessments), the
special education teacher used Canvas to upload accommodations, in the form
of reading assessments aloud to students who received services. The innovation
plan promoted exploring alternate ways to assess students, and this teacher the
only participant who discussed such innovations. Because he was not responsible for uploading content to the platform, he was able to advance and consider assessment options.

**Informal leaders sub-theme 1b: Persevere through challenge.**

Informal leaders also experienced struggle and persevered through challenges. Mr. Selleck, a reading teacher, shared a challenging experience regarding end-of-year testing. He elaborated:

And it’s kind of that deal, where last year was the first year we had ever tried that [personalized learning]. . . . When it came time for K-PREP testing, we had students who had never been exposed to some of the content because they had. . . . I mean, if you’re truly doing it [delivering instruction] at their own pace and with the content they need, they weren’t getting there [learning all the standards], and they were freaking out. (ET-TS-TFG)

Mr. Holzer added, “For example, you had fourth grade math kids who by the time K-PREP came, had never seen a protractor. When they got an angles question and [you] give them that little protractor, they’re more or less just moving it around the page. Of course, there’s nothing you can do” (ET-DH-TFG). Ms. Bissen also added, “I had one that had a meltdown. He had to be removed from my classroom because he was hyperventilating so bad” (ET-RB-TFG).

During their first year of implementing personalized learning strategies, these informal leaders encountered difficult situations they did not anticipate. Not only did the informal leaders learn from these types of challenges, but the whole
school benefited and learned important lessons as they reflected upon the struggle, and pressed forward with the district-wide initiative.

The elementary teacher group openly shared their struggle as they began to plan for the school next year based on lessons learned. Ms. Byrne shared the idea of implementing thematic units across the grade level and explained the team’s reasoning, saying:

As with being departmentalized [teachers teaching only specific subjects in the upper grades], which we feel truly is probably [best], we’ve tried other ways, we’ve tried half self-contained last year [wherein teachers teach all subjects to a single group of students]. . . . We weren’t getting as much [learning] with our kids as we thought that was going to give us, and we feel like we are more of an expert on our content being departmentalized like this. We want to keep that [departmentalization] going, but that limits your time that you have with the kids, so that was our big concern. They’re not getting that constant [subject-specific] vocabulary, that familiarity with the concept throughout the day, and that’s kind of what led us to approaching the thematic units together. (ET-SB-TFG)

The uncertainty of this new idea did not deter teachers from experimenting and trying the concept, as they are realistic about the challenges it will bring, and they are confident they can work through those issues together. Ms. Bissen shared, “We want to head in the direction--we want to keep self-pacing going, but we
don’t know how it’s going to work with this plan we’ve got. We’d like to start thematic units” (ET-RB-TFG). Mr. Holzer added:

We’re not sure about assessments and we’re not sure how our self-pacing is going to work because with the thematic unit, obviously it’s going to be hard for a student to move. You know, to American Revolution, if we’re talking about animals. So, there’s lots of things that we need to think about and tweak and conversations about all that, but that’s the direction we’d like to move in. (ET-DH-TFG)

Middle school teacher, Ms. Rapping, shared her challenges in letting students be completely self-paced in her language arts classroom. She explained, “If I let them go through [the material at their own pace], they do eighth grade [after completing her seventh grade content] after that, there’s nowhere for them to go after eighth grade [after mastering that grade level content]” (MT-RR-TFG). She was speaking about the disconnect between middle school courses and high school courses. When students master eighth grade content, a partnership between the middle school and high school was not developed at the time of the interview, so students did not have high school content readily available to advance. She further explained:

Maybe I’m wrong in doing this, but I have found if I can give them enrichment opportunities, things that challenge them more, as opposed to just keep going with the work... but enrichment opportunities that do challenge [them with the same content but] maybe at a higher level. . . . If I can give them that now, that still pushes them and challenges them. Just
kind of look ahead at that. . . . There’s no real reason to really push them to say ‘get done’ with your language arts. . . . You don’t have anything else [after eighth grade]. So that’s another thing we’ve got to figure out. What are we going to put in place if this [self-pacing in language arts] does happen? Those are just things you work out as you go. (MT-RR-TFG)

In the middle school teacher focus group interview, Ms. Rapping promoted perseverance through struggle as she spoke about future implementation and progress. She commented:

I think this [personalized learning] does allow me time to spend more time with those kids than what I’ve had in the past. And I think it’s going to continue to get better. This year I think there are some things that we can work through and change, and I think it’s going to be a good system as we progress. But, it can’t be, “Oh, we’ve given it a couple years, now we’re going to get rid of [it].” It has to be several years and working [problems] out as we go. (MT-RR-TFG)

**Informal leaders sub-theme 1c: Shifting mindsets.** Evidence suggested that personalized learning may help teachers see past assumptions they have about students, perhaps leveling the playing field for more and more students to have opportunities to learn, struggle, and excel. Mr. Selleck, fourth grade reading teacher, explained his personal mindset shift that occurred while experimenting with personalized learning, sharing:

It’s [personalized learning] kind of like . . . a facemask on a helmet. It’s there in front of you, but you don’t see it because it’s part of everything so
you don’t even notice it anymore. Now, when I pre-assess and a student
blows the pre-assessment out of the water, instead of feeling obligated,
like, ‘no, no, no, no . . .’ Now, I let a kid go [on with new material]. I’ve got
two students that are six units ahead of everybody else in the grade. Odds
are, they can be done with fourth grade math by maybe mid-March. (ET-
TS-TFG)

Later, in the same interview, Mr. Selleck shared more of his shifting mindset:
There’s a line sometimes that kind of gets blurred between kids that are
truly gifted and talented, and kids who are just good at playing school. . . .
Much like a lot of us, they cram for a test, we know how to study, we know
what they’re going to ask, we’re going to [learn] these things, we’re going
to get our marks. Now, I think even my kids that are really smart, and
school’s been easy for them. . . . I think now, it creates challenges for
them. . . . At least now they’re getting put in positions in being challenged,
whereas before, I felt like I was just playing school. [I was saying] hey, that
kid’s smart in every other class, I feel just fine calling that kid smart, too.
(ET-TS-TFG)

Ms. Byrne, a fourth grade teacher who taught science and social studies
content, was the initial teacher leader to take part in the KID-FRIENDly grant-
funded professional development for her school and district. She attended many
trainings on the concept of personalized learning and techniques to implement
those concepts into her classroom. She was considered the pioneer of
personalized learning in the teacher focus group. She shared her mindset shift with the researcher during the focus group interactions, stating:

I feel like it [personalized learning] has made me, personally, a better teacher in knowing where the students are, but I feel like I work harder now in my class time than I’ve ever worked ‘cause I’m everywhere [trying to personalize for each student]. I know my content in and out, and I have to know it all at once in order to reach every kid where they might be at. I feel like . . . it’s made the connections a lot easier, too. . . . If they’re [students] having trouble with something now, and I can see it’s going to cause them issues later throughout the content, I can really spend the time to focus on that, whereas otherwise, I might have planned that far ahead. (ET-SB-TFG)

Ms. Bissen, language arts teachers, shared her insights as well:
We create a pacing guide at the beginning of the year and of course us [teachers say], “We gotta get this done, we gotta get this done, we gotta get this done.” But when the students start pacing your classroom for you, it’s not as fast of a pace as what we [teachers] thought we would move. To me, just that, the pacing and the flowing through the content and how to get a balance between not rushing the kids and letting them have their time, and yet, we gotta keep going at the same time. That’s my biggest challenge, I feel like. (ET-RB-TFG)
Both these informal leaders, and early adopters of personalized learning models and methods, clearly shared their struggles and challenges as they work to make personalized learning a success in their classrooms.

During the middle school teacher interview, Ms. Rapping, seventh grade language arts teacher, shared school-wide changes that potentially created mindset shifts within her school building, sharing:

I do think that it [personalized learning] helps kids reach [higher] levels in things they’re talented in. We have lots of kids now at this point that are starting seventh grade math. Lots of kids. So before, we never would have done that. They would’ve never been able to reach that because we were all doing the same thing. (MT-RR-TFG)

Mr. Kirshner, special education teacher, reflected on a mind shift as well during the middle school interview, sharing:

But the level-up classes, I like those because I can do one-on-one with kids, and when they’re working on stuff, that has helped me [understand content areas better]. Not just with special ed kids . . . it gives me a chance to work with them one-on-one. Other teachers have talked about that’s why they like the individualized approach, is because for the first time, they’ve actually got to work one-on-one with kids. (MT-MK-TFG)

Middle school teacher Ms. Rapping shared a change in mindset regarding the flexibility that personalized learning strategies allowed in her classroom. She said, “I just think the flexibility of it has been the best attribute, you know kids can move, and you can… go back over something” (MT-RR-TFG). She elaborated:
It [personalized learning] allows me to check individually each student to see where they’re at. . . . To catch any issues that they have with any content as the progress, and go back and fix it. So that flexibility is something that [we] haven’t done traditionally. Kids would just kind of move on and then maybe I would get a few minutes to talk with the kids and, ‘Hey, this is what we did wrong, and this is how.” But they would all just keep going at the same pace. (MT-RR-TFG)

Informal Leaders Theme 2: Informal leaders impacting colleagues.

Interview data suggested informal leaders also impacted the attitudes and practices of their colleagues, both those with whom the work closely, and across their building. There are various instances in which informal leaders suggested discussing ideas with their team members, administrators, or other teachers at their school. Additionally, there are instances where informal leaders recounted scenarios where they reached out to include others in their efforts to personalize learning. These data, combined, support the theme of informal leaders impacting their colleagues, ultimately progressing the personalized learning initiative.

Additionally, the group of elementary teachers involved in the focus group interviews all utilized a program called MasteryConnect, a new program adopted by the school to provide personalized, online content to students. According to the principal, this group of teachers was the first to utilize the program at the school and offered the researcher insight into its benefits. The fourth grade teachers were comfortable experimenting with the program, working through
issues, finding ways to make it successful in their classroom. Mr. Holzer, a math teacher, explained:

So those kids that are making 80% and above, they don’t have to sit there and go through my test analysis because they don’t really need to. . . . I don’t have to find something else for them to do in a whole 45 minutes, wasting a day, pretty much. Now, if they’re making below [80%] I tell them, mark the ones you’ve got wrong, come see me. I can take five minutes and go over that test with those kids. . . . I feel like the retention they get out of that, that’s what I notice the most. (ET-DH-TFG)

This informal leader modeled the success of this individualized approach to assessment and re-teaching, potentially impacting his colleagues to adopt similar strategies.

Ms. Byrne, fourth grade social studies teacher, recounted how her entire grade level got involved in personalized learning, as a domino effect occurred in teacher participation. She told the researcher:

There’s two out of five teachers on our team that is going through this kid-FRIENDLy [grant], and . . . she jumped on board [the language arts teacher], the science teacher really embraced the project-based learning and went in that direction, so it just kind of clicked and we liked it. It worked well for us. (ET-SB-TFG)

Ms. Bissen, the language arts teacher, joined in saying:

We’ve jumped full throttle into it [personalized learning], altogether, and I mean . . . we, probably out of the school, were the only grade level that
was whole [implementation] within the second year . . . Once I came on board, then, pretty much everybody else was, “Oh yeah, we can do this.” (ET-RB-TFG)

These data suggest it was influence from other informal leaders that solicited the participation of teachers who were not initially involved in personalized learning training and professional development sessions. Ms. Byrne explained the process in even more depth:

I was one of the teachers that were elected, I guess [to attend the kid-FRIENDLy workshops]. . . . You go to those meetings and they give you things and they give you these ideas. . . they want you to get a ‘plus one’ [a teaching partner with which to implement the strategies] and then by the end of course, we’re doing this and talking about meeting and he’s [Mr. Holzer, math teacher] like, ‘That’s kind of cool, I can do this.’ Then you get another plus one, and fourth grade. . . . I just feel like we’re awesome and we work together so well and we feed off of each other really well and take ideas and learn. So, we just kind of embraced it. (ET-SB-TFG)

Mr. Holzer, fourth grade math teacher, explained his experience as he became increasingly interested in personalized learning methods. He shared, “I’m the doddering old man. . . . Ultimately, I will say this, and I’ve thanked them profusely last year, and do now. Fifteen years in, and I still feel like, now I feel new at stuff because I’m learning different things and we’re trying different things” (ET-DH-TFG). He continued to explain, “I don’t know that I would have ever taken that approach [individualizing instruction] in the past because we all get
good at playing school” (ET-DH-TFG). The elementary teacher group explained how they now plan together each week. Mr. Holzer shared, “We meet every Tuesday together as a team. No one’s making us do that, we just do that. [Ms. Byrne] takes the minutes. Everybody asks their questions” (ET-DH-TFG). Mr. Selleck added, “We’ve been productive” (ET-TS-TFG). Even after the teachers in the interview group had implemented methods of personalized learning in their daily instruction, they continued to collaborate and share their ideas and challenges.

Additionally, the elementary teacher group shared their ideas to include other grade levels in their desire to transition to standards-based grading. Mr. Holzer brainstormed:

I’m an advocate, and that’s not something that we’ve talked about as a team or necessarily as a school, I’m an advocate of going to a skills-based report card. . . . But at the same time, the community is not ready for that. If we all of a sudden popped out next year and said, ‘Boom! We’re doing this.’ You’re going to have a natural push back. (ET-DH-TFG)

He continued, sharing his thoughts on transitioning one grade level each year to a standards-based report card, “I think we could roll it out over two, three years. Kids that are second grade now that have never gotten A’s and B’s, let that start in the third grade of next year, and then those kids [who] never saw an A or B don’t have that expectation, and then next year after that, let’s go third and fourth grade” (ET-DH-TFG). Mr. Holzer added, “Then by the third year, this whole
school could be [using] skills based report cards and no kid from the second grade up has seen anything different” (ET-DH-TFG).

Middle school informal leader interview data reciprocated this finding of impacting colleagues to promote and further the progress of the District of Innovation project. Mr. Kirshner, middle school special education teacher, shared, “I think for the most part, now that we’ve got this thing underway, we’ve been doing it. . . . I think that most would say that kids are working harder. . . . I think more teachers will be on board with at least the direction we’re headed” (MT-TS-TFG). Ms. Rapping added:

We were all kind of on a different understanding of how it was going to look and how it was going to work [in the initial phases of implementation], and even though we attended PD’s and we did things over the summer, we didn’t necessarily dive in and all say, “It’s going to be this, this, and this.” It was kind of like, “well, you decide what in your classroom.” (MT-RR-TFG)

She continued to explain, that now, as more teachers have implemented innovation strategies, “Everybody now is kind of on board, let’s go with it. We started it, we jumped into it, and it’s working good” (MT-RR-TFG).

In another instance, Mr. Kirshner spoke of other informal leader groups experimenting with programs in order to better inform other grade levels as the program was implemented in phases. Mr. Kirshner explained how different grade levels were ‘piloting’ the Mastery Connect program, stating:
Sixth grade was kind of our pilot. . . . They all went full-force in the Mastery Connect and then seventh and eighth grade are going to be getting into that. But, we did sixth grade so we could work out the kinks and see what was going to work and what wasn’t going to work, before seventh and eighth jumped full-fledge into it. (MT-MK-TFG)

**Overall Findings**

As the coding process with interview transcripts and documents ensued, the researcher formulated a list of actions or behaviors that leaders at all levels exhibited, followed by actions and behaviors specific to only one or two leader groups. Evidence derived from the interviews and artifact review suggests that the leaders involved in this study all shared similar actions and behaviors during the implementation of this district wide, personalized learning initiative. The table that follows presents evidence that the superintendent and principals displayed all strategies and behaviors included in the chart. With few exceptions, like arranging professional development, articulating expectations, and communicating with stakeholders, informal leaders displayed a majority of the actions and behaviors as well. These findings suggest a strong consistency across different leader groups about the role leaders played in this innovation and that specific actions and behaviors promoted the successful implementation of the personalized learning initiative. Table 3 displays these results.

**Conclusion**

In this study, Research Question 1 examined the role of the superintendent in a district-wide, personalized learning initiative in a Southcentral
Kentucky school district. The study rendered findings to suggest the superintendent was the champion of change during the initiative, fostering a culture that accommodated risk-taking and struggle. Additionally, Dr. Mumford developed a culture that was sensitive to the personal and professional uncertainty that comes with significant change, as this initiative required.

Table 3

*Leadership Actions Across Groups*

<table>
<thead>
<tr>
<th>Action/behavior</th>
<th>Superintendent</th>
<th>Principals</th>
<th>Informal Leaders</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advocated for personalized learning techniques</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Facilitated communication with and among staff</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Modeled open-mindedness</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<tr>
<td>Encouraged experimentation and risk-taking</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<tr>
<td>Articulated expectations for innovative teaching methods</td>
<td>X</td>
<td>X</td>
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<tr>
<td>Encouraged mindset shifts</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<tr>
<td>Arranged professional development</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Shared/distributed decision making</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Promoted instructional technology</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Formally communicated with parents/community about the personalized learning initiative</td>
<td>X</td>
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The superintendent was also a chief communicator, facilitating discussion with and among district and school leaders, and also acting as the public relations expert with community members and parents.

Research Question 2 investigated the role of principals in the same district-wide, personalized learning initiative within the same school district. Analysis of findings promoted the conclusion of principals acting as a chief communicator with and among staff members, but also as they interacted with parents on behalf of teachers. Additionally, principals articulated the expectations of the school as they progressed through the implementation process of the initiative, and held teachers accountable for implementing innovative teaching methods into their daily routines, while allowing teachers maximum flexibility to adopt and utilize such practices. The principals in this study modeled open-mindedness and promoted mindset shifts among teachers, specifically in regard to grading practices.

The final research question examined the role of informal leaders during the district-wide, personalized learning initiative. Findings suggested informal leaders are early adopters of innovative teaching and learning practices, model risk-taking and persevering through challenges in the implementation, and impact their colleagues by sharing their experiences, ultimately promoting participation in the initiative.

The following table displays the data sources of each theme derived from this case study. Every theme is supported with evidence from at least two data sources; many themes are supported with full triangulation. The table displays
evidence to promote the trustworthiness of the study. The themes regarding the superintendent role lack support from informal leaders, but this limitation was due to an oversight in the study design and the interview protocol.
Table 4

Data Sources of Themes and Subthemes

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<thead>
<tr>
<th>Data Source</th>
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<td>Superintendent Interview</td>
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<td>Transcripts</td>
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<td>Principal Interview</td>
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<td>Transcripts</td>
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<tr>
<td>Informal Leader Interview</td>
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<td>Transcripts</td>
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<td>Artifact Review</td>
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Public schools face harsh scrutiny as many continue to struggle to make significant improvements in student achievement. More drastic measures are taken each year by school districts and their leaders in an attempt to spark an upward trend in accountability outcomes. Districts are also increasing the efforts to utilize instructional technology in order to prepare students for a technology-driven future. Discussion of personalized learning methods and standards-based or competency-based approaches to learning has permeated virtually every district in the nation, even internationally. There will be no end to the attempts to personalize instruction for students, providing students a better educational experience designed to meet their individual social and academic needs. Though we know a great deal about the complex idea of leadership, there is a vast gap in what researchers have discovered about leadership as it intersects with education innovation. This dissertation study begins to fill that gap of knowledge regarding leadership and innovation. Understanding this relationship will better position districts, leaders, education consortiums, universities, and countless other organizations as they all attempt to improve students’ experience at school, and ultimately positively impact their academic outcomes.

This chapter includes three major sections: (a) a summary of findings related to the role of leaders in a district-wide, personalized learning initiative, including an in-depth analysis of the role of the superintendent (RQ1), the principal (RQ2), and informal leaders (RQ3); (b) linkages from this case study’s
findings to empirical literature and previous studies; and (c) suggestions and implications for researchers and education stakeholders.

**Summary of Findings**

This case study investigated the role of leaders in a district-wide, personalized learning initiative in a Southcentral Kentucky school district, recently approved as a District of Innovation by the Kentucky Department of Education, a designation that gave the district greater flexibility and autonomy. The researcher utilized a qualitative case study design approach in order to investigate the “how” and “why” of leadership in the selected school district. This case study offered an in-depth understanding of the specific situations leaders encounter while implementing innovation efforts and how they interpret meaning from their actions (Hancock & Algozzine, 2010).

Furthermore, the researcher utilized a structural coding method for this research project, as it is suggested to be highly appropriate for interview transcripts (Guess et al., 2012; MacQueen et al., 2008; Namely et al., 2008). This study was conducted at Greyford County School District (a pseudonym), a 1,600-student district of three schools in South Central Kentucky, and captured the experiences and perceptions of leaders at various levels during a two-year period of the innovative initiative. In addition to the analysis of numerous interview transcripts with leaders, the researcher also drew conclusions based on artifacts, documents, and observations of administrator meetings and board meetings.

This case study produced evidence supporting the conclusion that leaders at various levels are instrumental and essential in an innovative, personalized
learning initiative. Several themes emerged from data analysis of this research project describing the role of leaders in promoting and supporting education innovation:

- **Theme 1:** The superintendent was the catalyst for district-wide innovation, serving as a champion of change and articulating a vision of what innovation should look like and displayed a desire that innovative practices become the district's “norm” (RQ1).
  - **Sub Theme 1a:** The superintendent served as the champion of change, establishing a sense of urgency for changing instructional practices.
  - **Sub Theme 1b:** The superintendent articulated a vision of what the innovation should look like.
  - **Sub Theme 1c:** The superintendent expressed his desire to see that innovative practices should become normalized across the district.

- **Theme 2:** The superintendent fostered a culture of innovation by respecting the challenges of changing practices, sharing decision-making, and serving as a facilitator of communication with internal and external stakeholders (RQ1).
  - **Sub Theme 2a:** The superintendent demonstrated a sensitivity to the personal and professional challenges innovation requires, which encouraged risk-taking.
Sub Theme 2b: The superintendent shared decision-making about how the innovation would actually take shape with principals and informal leaders.

Sub Theme 2c: The superintendent facilitated communication about the innovation with internal and external stakeholders.

Theme 3: The principal was the chief communicator with parents, among teachers, and acted as a liaison between the superintendent and teachers (RQ2).

Sub Theme 3a: Principals in this study managed parent communication, particularly negative reactions from parents, and facilitated communication between teachers and parents.

Sub Theme 3b: The principal facilitated communication among teachers and staff regarding decisions that impact the school.

Sub Theme 3c: The principal acted as a liaison between the superintendent and teachers, articulating the superintendent’s vision to teachers and staff, and reciprocally keeping the superintendent apprised of implementation progress.

Theme 4: The principal promoted the personalized learning initiative by encouraging and modeling mindset shifts among teachers and parents (RQ2).

Sub Theme 4a: The principal fostered a mind-shift away from traditional teaching and ranking of students by encouraging
personalized instruction and emphasis on individual student readiness levels.

○ Sub Theme 4b: The principal set the expectation for teachers to implement innovative strategies and held them accountable for innovation, but allowed maximum flexibility in navigating classroom changes. The principal acknowledged that innovation will manifest differently in each classroom.

● Theme 5: The informal leaders in this initiative are those who are “early adopters,” share in the vision of the superintendent, and adopt innovative practices to realize the vision (RQ3).
  ○ Sub Theme 5a: Informal leaders are the ultimate risk-takers in the initiative and experimented with innovative strategies to accommodate the needs of their students.
  ○ Sub Theme 5b: Informal leaders modeled perseverance in overcoming challenges in order to make personalized learning a success in their classroom.
  ○ Sub Theme 5c: Informal leaders experienced mindset shifts early in the initiative and shared those experiences with others.

● Theme 6: Informal leaders impact their colleagues and create increased participation in innovative teaching methods (RQ3).

This study was unique, as it investigated a research topic just emerging in the field. The concept of innovation, specifically personalized learning, is a virtually unexplored topic in current education research. The study was also
unique in that it attempted to explore the “how” and “why” of leadership at various levels in the school district (superintendent, principals, and informal leaders). Interviews, artifacts, and observations revealed evidence of a developing culture that fostered uncertainty, risk-taking, open mindedness, and shifts in mindsets about traditional models of schooling. Communication was also an element present in the data for all types of leaders involved in this study. All leaders promoted and facilitated communication with and among internal and external stakeholders. In this study, the leaders at each level investigated and modeled innovative shifts and changes for others in their district, ultimately increasing participation and buy-in in the initiative incrementally.

**Connections to Literature**

Though scholars and practitioners have historically emphasized the significance of leadership in the field of education, there is an unexplored facet of leadership as it relates to innovation. As education reform continues to become increasingly more drastic, and the pressure from virtually all stakeholders to increase students achievement becomes more burdensome, experts in the field press for “innovative” solutions. Now, more than ever before, school reform efforts are utilizing schooling models and strategies that are unlike any efforts in the past, with a notable focus on instructional technology and digital learning. Though the idea of “innovative leadership” is unexplored, the findings of this study align with previous research studies in a variety of contexts. Yukl (2006) defined leadership as an influence process that shapes the behaviors of individuals and groups toward the attainment of goals; this study provided
findings to support the superintendent influenced other leaders during the initiative toward a goal of becoming personalized-learning district.

Leithwood and Riehl (2003) found that leadership embodies core practices, such as direction setting. In this study the superintendent set the direction and championed the initiative as he insisted on the urgency of the initiative, articulated a vision of what the transformation should look like, and attempted to normalize innovation, district-wide. Additionally, this study reflects the previous findings of scholars suggesting school leaders are more effective when they are focused on the needs of their organization (Day et al., 2010; Hallinger, 2010). The current study supports the idea that leaders were successful in the initiative because they were focused on the specific goals and practices articulated in the innovation plan.

Informal Leaders

Heck and Hallinger (1996) refer to “blind spots” in education leadership research, one of which includes a hyper-focus on formal leadership roles, with an overemphasis on the principalship (Morrison, 2002; Owens, 2001; Razik & Swanson, 2001). Muijs and Harris (2003) suggests research has neglected to analyze leadership outside of the formal leadership role. This study considers those blind spots and addresses the role of informal leaders in an innovation initiative and found that informal leaders were essential to the success of the innovation, as they acted as the early adopters of innovative teaching and learning methods and persevered through implementation challenges.
Innovation

Public schools are driven to change by increasing demands and pressure to increase students’ achievement levels (measured in a myriad of ways, including nationally with NAEP accountability results). Christensen (2016) was a pioneer of educational innovation, pressing for “disruptive innovations” in contexts of schooling, using Thomas Kuhn’s (1962) concept of paradigms to describe such transformations. In a collaborative project by Christensen et al. (2013), the authors asserted that disruptive innovations did not merely attempt to improve an existing model or product, but instead offered a new definition of what is good. Smarick (2017) elaborated on Kuhn’s (1962) theory of paradigms to promote drastically different possibilities and directions for the field of education to explore, describing innovative ideas as “strikingly different approaches to fundamental issues” (p.5).

On the other hand, Christensen et al., (2013) discuss sustaining innovations that simply make an existing approach or method better. In this study, both sustaining and disruptive innovations were implemented in the personalized learning initiative with a focus on improved student outcomes. Though the scope of this study did not examine student outcomes, findings did support an emphasis on learner-centered, personalized instruction aimed at increased levels of student achievement, a reciprocate of ideas included in the Jobs for Future & the Council of Chief State School Officers report (2015). There were linkages to empirical evidence in terms of the informal teacher role as well as findings regarding that role highlighted evidence of tailoring instruction to
individual student needs and designing and managing content and instruction to
be able to serve individual students, an idea that Pane et al. (2015) discussed in
a prior study.

**Leadership for Learning**

This study also reflected Hallinger’s (2010) definition of leadership for
learning, where he detailed patterns of improved education as a result of
integrated leadership styles rendered from a meta-analysis of empirical literature.
The superintendent and principals in this study all exhibited multifaceted
leadership styles, combining elements of transformational and shared leadership,
all focused on creating a district-wide emphasis on student learning. An essential
component of Hallinger’s (2010) leadership for learning framework involved the
mediated success of principals through the cooperation of their staff. This study
reflected the same pattern: the leaders in this study (both the superintendent and
principals) indirectly impacted students and learning through their influence of
informal leaders, teachers, and faculty members. Scholars assert the
development of teachers is equivalently important to the development of
students, as teacher development is crucial to building a school’s academic
capacity (Bell et al., 2003; Hallinger & Heck, 1996; Robinson et al., 2008).

**Academic Capacity**

Harris (2002) defined capacity building as “creating the conditions,
opportunities, and experiences for collaboration and mutual learning” (p. 3), and
Hallinger (2010) described school level conditions that impact teaching and
learning as the “schools’ capacity for academic improvement, which includes
components of school culture, work processes, and people” (p. 132). Harvey (2003) described capacity building, and the indirect influence of leaders as “the collective competence of the school as an entity to bring about effective change” (p. 21). The findings from this study aligned with empirical evidence in this regard, as the superintendent, principals, and informal leaders worked to create a culture wherein change could be tolerated and embraced. The leaders throughout the district built the capacity for academic improvement through those same avenues of influence. Leaders in this study all worked to create a culture that fostered risk-taking and innovation, implemented work processes to realize personalized learning, and developed teachers and leaders alike in order to prepare them for the initiative. In regard to the component of “people” in Hallinger’s framework, findings from this study suggested that communication was a significant leadership behavior, which facilitated shared decision making throughout the initiative across the district.

**Distributed Leadership**

Findings from this case study also resonate with the empirical findings of Copland (2003) and his definition of shared leadership, which suggests leaders are determined by the situation, not by their position. This is especially true in the data about informal leaders, as they emerged naturally. Caldwell (1998) and Saphier and King (1985) promoted the idea of distributed leadership as a means of increasing a school’s capacity for improvement by broadening the sources of leadership in nontraditional avenues to positively impact teaching and learning. This is certainly true in this case study, as shared decision making was a
component of the superintendent and principals’ roles. Leithwood et al. (2007) proposed that the collective capacity of an organization typically surpasses the capacity of any individual leader, and distributing leadership and decision making is a means to achieve complex tasks and ambitious goals. The findings of this case study support those concepts, as decision making was shared and informal leaders developed throughout the implementation of the ambitious pursuit for Greyford County Schools to become an innovative district.

Culture

In this study, principals and the superintendent modeled open-mindedness and encouraged risk-taking, which ultimately created a culture where innovation was possible. Specifically, in the elementary teacher group, the team of teachers involved in focus group interviews had implemented more innovative practices than other teachers in the school and district. Fullan and Hargreaves (1996) wrote about collaborative culture where members of the organization draw upon the expertise of members and become less dependent upon the school leader. These empirical findings resonate strongly with the current study, especially in regard to informal leaders.

During the personalized learning initiative, principals held teachers accountable for implementing innovative practices, but also trusted teachers to explore methods of implementation, allowing for maximum flexibility as they incorporated new strategies to approach teaching and learning. Previous studies also uncovered this element of trust (Hopkins & Jackson, 2002) as an essential
component of school culture, and Hargreaves (2007) noted a culture of continuous innovation depends on the capacity of a school to continue learning.

Leadership and Change

Fullan (2007) described change in education as a process that enables innovations to be adopted by the school and staff and transforms the school culture to be receptive of those changes. Fullan (2007) also charged principals with being the change agent in leading innovative efforts; however, in this study, considering the scope of the initiative was district-wide, the superintendent assumed the role of change agent, articulating a vision for the innovation to principals. Principals were then able to facilitate the actual implementation of the innovative practices. In this case study, the role of change agent was shared between the superintendent and the principals. Marzano and colleagues (2005) defined a change agent as being responsible for challenging the status quo, and in this study, the superintendent most certainly assumed that role.

Additionally, Hargreaves (2005) asserted a leader must recognize how change might affect individuals in the organization, as individual perception of change impacts the overall effort. This is a concept that is strongly evident in this case study; principals and the superintendent exhibited sensitivity to change throughout the implementation of the District of Innovation plan. Hall and Hord (2009) researched extensively about change initiatives and concluded successful implementation starts at the individual level, and each individual in the organization responds to change in unique ways. In this study, the superintendent and principals were highly sensitive and respondent to those
ideas. The leaders involved in this study were realistic about the inevitability of reluctance to change, used the reluctance to learn, grow, and question the practices involved in initiative, just Goodson, Moore, and Hargreaves (2006) suggested resistance not just be perceived as an obstacle to change, but rather as an opportunity to learn from the wisdom of those who are exhibiting the reluctance.

**Fresh Insights**

Much of the evidence from this study resonates strongly with existing empirical research regarding change, innovation, academic capacity, and educational leadership, but the study is unique in that it highlights elements of leadership that have traditionally been unexplored. Many empirical studies have concluded *that* leadership does impact student achievement, indirectly, but a missing piece in that data includes the lack of evidence to support *how* that impact actually manifests. This study unveils significant elements of three types of leadership, providing new findings about each type that have yet to be discussed in research literature.

Previous research has been hyper-focused on the role of the principal, but this study reveals how the superintendent can and does take on roles such as champion of change, fostering a culture of innovation that enables the district to transform its fundamental procedures and beliefs about teaching and learning. Additionally, the study provided evidence of how principals can and do promote innovation in their buildings by modeling mindset shifts for parents and teachers, specifically about traditional grading practices. The study also provided evidence
of how principals can hold their teachers accountable for adopting innovative practices, but still allow them autonomy to discover what is effective in their own classroom. Lastly, the study investigated an underrepresented area of leadership in the role of informal leaders, providing evidence of the crucial role that these leaders play in innovative transformations, being the individuals “on the front line” experimenting with new and uncomfortable ideas about how to better meet the needs of students. This case study is positioned to enhance the empirical findings of past studies, but also challenge the field of scholars to investigate avenues of leadership that have not yet been adequately explored.

**Implications for Educators and Researchers**

Findings from this study offer significant implications for researchers, as the intersection of leadership and innovation still remains relatively unexplored. Education stakeholders also can utilize the findings of this study to examine their own innovative initiatives.

**Implications for Educators**

Superintendents, principals, and informal leaders should analyze their efforts of school reform, specifically in relation to innovative practices. As plans for innovation are developed, stakeholders should consider their organization’s academic improvement capacity with special regard to their school culture before any change is introduced or implemented. With regards to academic capacity (Hallinger, 2010), three significant components should be analyzed to assess the readiness level of organization to adopt innovative practices: culture, work processes, and people. The initial state of an organization’s academic capacity
can considerably impact the effectiveness of the initiative. As innovative efforts move forward in the organization, plans to address the three components of academic capacity should be included throughout the implementation process.

Because successful change initiatives begin at the individual level, and the school does not change as a whole until many of its members have accepted and responded to the change independently (Hall & Hord, 2009), individual readiness levels of individuals in the organization should be taken into account prior to implementation efforts. An individual scale or survey to assess this readiness level could provide leaders with an idea of how to initiate innovative changes within a school. Leaders should also approach any change initiative with a sensitivity to how change will affect individuals in their organization, and work to build a culture that is accepting of risk-taking and experimentation. This study is positioned to support the innovative endeavors of superintendents, principals, and classroom teachers as well, and can provide a point of reference in how to lead a district or school toward vastly innovative models of schooling, potentially significantly increasing the ability of a school or district to meet individual student needs.

Implications also exist for post-secondary educators and education consortiums, as the preparation needs of leaders for future schools and districts will certainly reflect the increasing effort to transform traditional schooling models into progressive, innovative organizations. Traditional leadership training must respond to the shifting needs of leaders, as leaders accommodate the evolving needs of students. No longer will principal training be adequate with a focus on
managing time, people, or even instruction, but an added element of visionary leadership and skills of innovative thinking and creativity will be required to prepare leaders of the future. Traditional teacher preparation programs face similar challenges, as it is no longer suffice to be skillful in classroom management and traditional instructional and pedagogical methods, as these skills are also shifting and evolving as innovation becomes increasingly apparent in reform efforts. Personalized learning approaches show great promise in reaching education’s most vulnerable student groups (Jobs for the Future & the Council of Chief State School Officers, 2015; Pane et al., 2015), so best practices of personalized learning approaches are necessary in teacher preparation programs. If colleges, universities, and preparation programs are not responsive to innovations occurring in the field of education, their graduates will enter the workforce ill-equipped to thrive in innovative environments, or worse, the institutions will become obsolete. Current trends have suggested this is already occurring, as post-secondary statistics reveal a significant drop in enrollment, particularly in teacher education. Similarly, state-level change has reflected the same challenge, as Kentucky recently abolished the requirement for teaching professionals to obtain a master’s degree.

Policy implications are certainly evident as a result of these findings. As education researchers continue to investigate the intersection of leadership and innovation and findings are revealed to support shifts in traditional models of schooling, policy makers must be responsive and open-minded as they curate rules and regulations governing school districts. Innovative schooling approaches
shed new light on grading and assessment practices, causing practitioners to question whether traditional methods are adequate at representing students’ academic performance level. This preliminary evidence could have significant implications for policy makers as they develop policies for student proficiency and school accountability. Furthermore, policymakers may be forced to reevaluate teacher and principal evaluation as scholars continue to investigate innovative leadership. Specifically, further analysis of how a leader approaches school culture, mindset, open-mindedness, and teacher autonomy may render findings that require an increase of emphasis on these aspects of leadership and a shift in how those behaviors are observed and evaluated.

**Implications for Researchers**

This study contributes to the body of literature on theories of school leadership, change, and innovation. The results suggest extensive direction for potential future studies. Research design limited this study to investigate one rural Kentucky school district and its journey to become an innovative, personalized-learning organization. Further research could be conducted to explore innovative initiatives in more diverse areas, and the research should be expanded to include many different districts attempting various types of innovation, not strictly limited to personalized learning initiatives. Further research should also investigate the relationship between leader groups more intently, as the relationship and collaboration between superintendent and principals, and the relationship between principal and informal leaders, could be a vital element in the success of the implementation. Teacher perceptions of the
implementation process is another potential avenue for conducting further research before, during, and after the implementation in order to strengthen findings regarding individual readiness levels for change and the school culture aspect of academic capacity.

The researcher utilized triangulation of data, member checks, and methods to strengthen trustworthiness of findings in this study, but qualitative research is not generalizable beyond the content of the study. Future research should explore the role of leaders in a multitude of contexts, not specifically in personalized-learning initiatives. Additionally, there are flaws within the design of this project; the role of superintendent is not supported by informal leaders, as the interview protocol failed to address this topic. In retrospect, this was an avoidable oversight that will be corrected moving forward with efforts to publish this work. The participation of the high school principal was significantly limited. After the initial interview, the high school principal did not respond to requests for further interviews and was not cooperative with efforts to arrange teacher focus groups. This limitation could have potentially strengthened the findings and themes already evident in the middle school and elementary teacher focus group data.

**Conclusion**

Education professionals are struggling to evolve alongside their diverse students with specialized needs, seemingly to no avail. Stagnant accountability scores across the nation inflate demands for school reform in order to increase student proficiency rates, prompting researchers and practitioners to develop
ideas about teaching and learning that have never been considered before. In reality, however, those demands are not being met with meaningful action from any stakeholder group. History proves that educators are simply not moving the needle toward increased student proficiency, so continuing to approach reform as it has been approached in the past is pointless. It is evident that significant impact requires innovative thinking and innovative leadership. Educational innovation must become a mainstream method to better meet student needs and increase academic outcomes, if there is any hope at truly revamping and redesigning public education.

The only way to facilitate changes that challenge the fundamental principles traditional schooling models are built upon, and to promote an expectation of innovation in the field of education, is to strengthen the capacity to innovative within the field. This shift requires practitioners and researchers to consider intersections and facets of education and school leadership that have never been considered before. It requires stakeholders to take risks and think divergently about the relationship between concepts and boldly explore uncharted territory.

This study represents a preliminary investigation of the intersection of leadership and innovation, acting as a traverse between what we know to be true about educational leadership, and what lies in the future for education reform, yet to be explored. Linking the past with the present, and looking toward the future, these findings are supported by empirical research, but also extend a myriad of avenues and opportunities for further exploration as researchers and educators
collaboratively work to discover innovative methods and models that increase student outcomes.

Unconventional insights and approaches to research (and education in broader terms) will be the key to finally unlocking the mystery of school reform and will ultimately lead professionals to cultivate an unorthodox toolkit of models, methods, and strategies that truly impact student outcomes. Unprecedented research, in the same fashion as this study, is the research of the future and will uncover findings to fuel the powerful transitions to come in the discipline of education.
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APPENDIX: IRB Stamped Approval Consent Form

INFORMED CONSENT DOCUMENT

Project Title: The Role of Leadership in School Innovation: A Case Study

Investigator: Savannah Denning
   Email Address: savannah.denning@topper.wku.edu
   Mailing Address: 3245 Witt Road, Franklin, KY 42134
   Department: Educational Leadership Doctoral Program
   Phone: 270-776-1482

You are being asked to participate in a project conducted through Western Kentucky University. The University requires that you give your signed agreement to participate in this project. You must be 18 years old or older to participate in this research study.

The investigator will explain to you in detail the purpose of the project, the procedures to be used, and the potential benefits and possible risks of participation. You may ask any questions you have to help you understand the project. A basic explanation of the project is written below. Please read this explanation and discuss with the researcher any questions you may have.

If you then decide to participate in the project, please sign this form in the presence of the person who explained the project to you. You should be given a copy of this form to keep.

1. Nature and Purpose of the Project:
The purpose of this study is to gain understanding of the role of leaders in implementing a district-wide, innovative initiative in a public school setting.

2. Explanation of Procedures:
The superintendent will aid the researcher in purposively choosing principals and teachers for individual interviews. The participants chosen for the interviews will have the choice of interview method: face-to-face, videoconference, or telephone. Face-to-face will be the preferred method by the investigator. All participants will be ensured confidentiality of the interview transcripts. The interview session per participant is designed to not exceed one hour.

3. Discomfort and Risks:
There are no physical, psychological, financial, or legal risks to you or any of the other participants associated with this study.

4. Benefits:
The benefits gained from your participation may provide information about how leaders play a role in the implementation of innovative programs throughout the district. This information will contribute to other schools and districts attempting to initiate change in their systems.

5. Confidentiality:
Absolute confidentiality cannot be guaranteed; however, data will be held in confidence to the extent permitted by law. All information collected may be reviewed by Dr. Houchens and/or the University Institutional Review Board.

WKU IRB# 17-041
Approval - 8/23/2016
End Date - 8/23/2017
Expedited
Original - 8/23/2016
6. Refusal/Withdrawal:
Refusal to participate in this study will have no effect on any future services you may be entitled to from the University. Anyone who agrees to participate in this study is free to withdraw from the study at any time with no penalty.

You understand also that it is not possible to identify all potential risks in an experimental procedure, and you believe that reasonable safeguards have been taken to minimize both the known and potential but unknown risks.

__________________________________________  ____________
Signature of Participant                        Date

__________________________________________  ____________
Witness                                         Date

• I agree to the audio/video recording of the research. (Initial here) ____________

THE DATED APPROVAL ON THIS CONSENT FORM INDICATES THAT
THIS PROJECT HAS BEEN REVIEWED AND APPROVED BY
THE WESTERN KENTUCKY UNIVERSITY INSTITUTIONAL REVIEW BOARD
Paul Mooney, Human Protections Administrator
TELEPHONE: (270) 745-2129

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